



APPENDIX D

Laboratory Analytical Reports for 2017 Biota Samples

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709612

PO#

C012505850

October 7, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709612

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October 7, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BO-04_17ET008_091717_TOM_01_WB	1709612-01	Tissue	17-Sep-17 07:45	22-Sep-17 10:25
BO-04_17ET010_091717_TOM_02_WB	1709612-02	Tissue	17-Sep-17 07:55	22-Sep-17 10:25
BO-04_17ET014_091717_TOM_03_WB	1709612-03	Tissue	17-Sep-17 08:00	22-Sep-17 10:25
BO-04_17ET025_092017_TOM_04_WB	1709612-04	Tissue	20-Sep-17 10:40	22-Sep-17 10:25
BO-04_17ET026_092017_TOM_05_WB	1709612-05	Tissue	20-Sep-17 10:40	22-Sep-17 10:25
BO-04_17ET030_092017_TOM_06_WB	1709612-06	Tissue	20-Sep-17 10:48	22-Sep-17 10:25
BO-04_17ET035_092017_TOM_07_WB	1709612-07	Tissue	20-Sep-17 10:58	22-Sep-17 10:25
BO-04_17ET041_092017_TOM_08_WB	1709612-08	Tissue	20-Sep-17 11:10	22-Sep-17 10:25

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
07-Oct-17 14:55

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM . The samples were received intact, on-ice within two sealed coolers at -27.1 and -21.6 degrees Celsius.

The COC also requested % lipids, but this was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches for total Mercury; F710188 and F710195. Sample 1709612-02 was used as the source QC in batch F710188, and sample 1709612-05 was used as the source QC in batch F710195. These were analyzed in sequence 7J04018.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

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A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

Client: AMSC Foster Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/23/17 Labeled By: CSF

Project: _____

Received By: LM Label Verified By: Ba

of Coolers Received: 2 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>170404186</u> CF: <u>16.1</u> °C	Date/time: <u>9/22/17 10:25</u> By: <u>LM</u>
Cooler 1: <u>27.22C</u> w/ CF: <u>27.12</u> °C	Cooler 4: °C w/ CF: °C
Cooler 2: <u>21.73</u> °C w/ CF: <u>21.63</u> °C	Cooler 5: °C w/ CF: °C
Cooler 3: °C w/ CF: °C	Cooler 6: °C w/ CF: °C

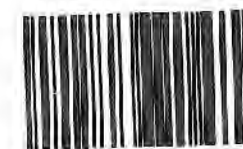
Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	N	
Preservation type:	N	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	N	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4846 Cooler 2: 7878 1037 1884

1709612





AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:55

BO-04_17ET008_091717_TOM_01_WB
1709612-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	104	0.436	3.89	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	
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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:55

BO-04_17ET010_091717_TOM_02_WB
1709612-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	148	0.433	3.87	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:55

BO-04_17ET014_091717_TOM_03_WB
1709612-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	123	0.405	3.62	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project Manager: Denise King

Reported:
07-Oct-17 14:55

BO-04_17ET025_092017_TOM_04_WB
1709612-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	152	0.440	3.92	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project Manager: Denise King

Reported:
07-Oct-17 14:55

BO-04_17ET026_092017_TOM_05_WB
1709612-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	199	1.75	15.6	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	



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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:55

BO-04_17ET030_092017_TOM_06_WB
1709612-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	224	0.415	3.70	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:55

BO-04_17ET035_092017_TOM_07_WB
1709612-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	173	0.435	3.89	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:55

BO-04_17ET041_092017_TOM_08_WB
1709612-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	162	0.410	3.66	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Reported:
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J04018 - F710188											
Cal Standard (7J04018-CAL1)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.487	-		ng/L	0.50100		97.2				
Cal Standard (7J04018-CAL2)											
Prepared & Analyzed: 04-Oct-17											
Mercury	1.010	-		ng/L	1.0020		101				
Cal Standard (7J04018-CAL3)											
Prepared & Analyzed: 04-Oct-17											
Mercury	4.807	-		ng/L	5.0100		95.9				
Cal Standard (7J04018-CAL4)											
Prepared & Analyzed: 04-Oct-17											
Mercury	20.01	-		ng/L	20.040		99.8				
Cal Standard (7J04018-CAL5)											
Prepared & Analyzed: 04-Oct-17											
Mercury	42.16	-		ng/L	40.080		105				
Calibration Blank (7J04018-CCB1)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.335	-		ng/L							
Calibration Blank (7J04018-CCB3)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.360	-		ng/L							
Calibration Blank (7J04018-CCB4)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.271	-		ng/L							
Calibration Blank (7J04018-CCB6)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.433	-		ng/L							
Calibration Blank (7J04018-CCB7)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.342	-		ng/L							

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J04018 - F710188											
Calibration Blank (7J04018-CCB8)											
Mercury	0.340	-		ng/L							Prepared & Analyzed: 04-Oct-17
Calibration Blank (7J04018-CCB9)											
Mercury	0.398	-		ng/L							Prepared & Analyzed: 04-Oct-17
Calibration Blank (7J04018-CCBA)											
Mercury	0.382	-		ng/L							Prepared & Analyzed: 04-Oct-17
Calibration Blank (7J04018-CCBB)											
Mercury	0.489	-		ng/L							Prepared & Analyzed: 04-Oct-17
Calibration Blank (7J04018-CCBC)											
Mercury	0.426	-		ng/L							Prepared & Analyzed: 04-Oct-17
Calibration Blank (7J04018-CCBD)											
Mercury	0.305	-		ng/L							Prepared & Analyzed: 04-Oct-17
Calibration Check (7J04018-CCV1)											
Mercury	5.778	-		ng/L	5.0000		116	77-123			Prepared & Analyzed: 04-Oct-17
Calibration Check (7J04018-CCV3)											
Mercury	5.820	-		ng/L	5.0000		116	77-123			Prepared & Analyzed: 04-Oct-17
Calibration Check (7J04018-CCV4)											
Mercury	6.010	-		ng/L	5.0000		120	77-123			Prepared & Analyzed: 04-Oct-17
Calibration Check (7J04018-CCV6)											
Mercury	6.149	-		ng/L	5.0000		123	77-123			Prepared & Analyzed: 04-Oct-17

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J04018 - F710188

Calibration Check (7J04018-CCV7)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.165	-		ng/L	5.0000		123	77-123			
Calibration Check (7J04018-CCV8)											
Prepared & Analyzed: 04-Oct-17											
Mercury	5.827	-		ng/L	5.0000		117	77-123			
Calibration Check (7J04018-CCV9)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.120	-		ng/L	5.0000		122	77-123			
Calibration Check (7J04018-CCVA)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.010	-		ng/L	5.0000		120	77-123			
Calibration Check (7J04018-CCVB)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.473	-		ng/L	5.0000		129	77-123			
Calibration Check (7J04018-CCVC)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.043	-		ng/L	5.0000		121	77-123			
Calibration Check (7J04018-CCVD)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.262	-		ng/L	5.0000		125	77-123			
Instrument Blank (7J04018-IBL1)											
Prepared & Analyzed: 04-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J04018-IBL2)											
Prepared & Analyzed: 04-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J04018-IBL3)											
Prepared & Analyzed: 04-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U

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Reported:
07-Oct-17 14:55

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J04018 - F710188

Initial Cal Check (7J04018-ICV1)

Prepared & Analyzed: 04-Oct-17

Mercury	5.631	-		ng/L	5.0000		113	79-121			
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Batch 7J05013 - F710195

Cal Standard (7J05013-CAL1)

Prepared & Analyzed: 05-Oct-17

Mercury	0.554	-		ng/L	0.50100		111				
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Cal Standard (7J05013-CAL2)

Prepared & Analyzed: 05-Oct-17

Mercury	1.012	-		ng/L	1.0020		101				
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Cal Standard (7J05013-CAL3)

Prepared & Analyzed: 05-Oct-17

Mercury	4.823	-		ng/L	5.0100		96.3				
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Cal Standard (7J05013-CAL4)

Prepared & Analyzed: 05-Oct-17

Mercury	18.89	-		ng/L	20.040		94.2				
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Cal Standard (7J05013-CAL5)

Prepared & Analyzed: 05-Oct-17

Mercury	38.82	-		ng/L	40.080		96.8				
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Calibration Blank (7J05013-CCB1)

Prepared & Analyzed: 05-Oct-17

Mercury	0.166	-		ng/L							
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Calibration Blank (7J05013-CCB2)

Prepared & Analyzed: 05-Oct-17

Mercury	0.087	-		ng/L							
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Calibration Blank (7J05013-CCB3)

Prepared & Analyzed: 05-Oct-17

Mercury	0.105	-		ng/L							
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J05013 - F710195

Calibration Check (7J05013-CCV1) Prepared & Analyzed: 05-Oct-17

Mercury	5.021	-		ng/L	5.0000		100	77-123			
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Calibration Check (7J05013-CCV2) Prepared & Analyzed: 05-Oct-17

Mercury	4.974	-		ng/L	5.0000		99.5	77-123			
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Calibration Check (7J05013-CCV3) Prepared & Analyzed: 05-Oct-17

Mercury	4.747	-		ng/L	5.0000		94.9	77-123			
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Instrument Blank (7J05013-IBL1) Prepared & Analyzed: 05-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J05013-IBL2) Prepared & Analyzed: 05-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J05013-IBL3) Prepared & Analyzed: 05-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7J05013-ICV1) Prepared & Analyzed: 05-Oct-17

Mercury	4.960	-		ng/L	5.0000		99.2	79-121			
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Batch F710188 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710188-BLK1) Prepared: 02-Oct-17 Analyzed: 04-Oct-17

Mercury	0.687	0.090	0.800	ng/g							J
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Blank (F710188-BLK2) Prepared: 02-Oct-17 Analyzed: 04-Oct-17

Mercury	0.465	0.090	0.800	ng/g							J
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710188 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710188-BLK3) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	0.397	0.090	0.800	ng/g							J
Blank (F710188-BLK4) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	ND	0.083	0.740	ng/g							F-03, U
Blank (F710188-BLK5) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	ND	0.081	0.723	ng/g							F-03, U
Blank (F710188-BLK6) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	ND	0.088	0.786	ng/g							F-03, U
Blank (F710188-BLK7) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	ND	0.078	0.692	ng/g							F-03, U
LCS (F710188-BS1) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	7.831	0.090	0.800	ng/g	8.0160		97.7	75-125			
LCS (F710188-BS2) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	381.2	3.55	31.7	ng/g	373.70		102	75-125			
LCS Dup (F710188-BSD1) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	8.727	0.090	0.800	ng/g	8.0160		109	75-125	10.8	24	
Duplicate (F710188-DUP1) Source: 1709612-02 Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	160.8	0.447	4.00	ng/g		147.7			8.48	24	
Matrix Spike (F710188-MS1) Source: 1709612-02 Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	615.6	1.70	15.2	ng/g	380.08	147.7	123	71-125			

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:55

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710188 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike (F710188-MS2)		Source: 1709613-01			Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	693.5	1.68	15.0	ng/g	376.08	267.7	113	71-125			
Matrix Spike Dup (F710188-MSD1)		Source: 1709612-02			Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	605.1	1.71	15.3	ng/g	382.12	147.7	120	71-125	2.81	24	
Matrix Spike Dup (F710188-MSD2)		Source: 1709613-01			Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	693.6	1.69	15.1	ng/g	378.07	267.7	113	71-125	0.510	24	

Batch F710195 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710195-BLK2)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	0.655	0.090	0.800	ng/g							J
Blank (F710195-BLK3)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	0.439	0.090	0.800	ng/g							J
Blank (F710195-BLK4)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	ND	0.090	0.800	ng/g							F-03, U
Blank (F710195-BLK5)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	ND	0.080	0.717	ng/g							F-03, U
Blank (F710195-BLK6)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	0.365	0.090	0.800	ng/g							J
Blank (F710195-BLK7)					Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	0.299	0.090	0.800	ng/g							J

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 07-Oct-17 14:55
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710195 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710195-BLK8)		Prepared: 02-Oct-17 Analyzed: 05-Oct-17									
Mercury	0.105	0.090	0.800	ng/g							J
Blank (F710195-BLK9)		Prepared: 02-Oct-17 Analyzed: 05-Oct-17									
Mercury	ND	0.090	0.800	ng/g							U
LCS (F710195-BS1)		Prepared: 02-Oct-17 Analyzed: 04-Oct-17									
Mercury	8.800	0.090	0.800	ng/g	8.0160		110	75-125			
LCS (F710195-BS2)		Prepared: 02-Oct-17 Analyzed: 04-Oct-17									
Mercury	374.1	3.50	31.3	ng/g	373.70		100	75-125			
LCS Dup (F710195-BSD1)		Prepared: 02-Oct-17 Analyzed: 04-Oct-17									
Mercury	9.444	0.090	0.800	ng/g	8.0160		118	75-125	7.06	24	
Duplicate (F710195-DUP2)		Source: 1709612-05		Prepared: 02-Oct-17 Analyzed: 05-Oct-17							
Mercury	152.9	1.75	15.6	ng/g		199.1			26.2	24	QR-07
Matrix Spike (F710195-MS3)		Source: 1709612-05		Prepared: 02-Oct-17 Analyzed: 05-Oct-17							
Mercury	505.3	1.76	15.7	ng/g	392.16	199.1	78.1	71-125			
Matrix Spike (F710195-MS4)		Source: 1709613-05		Prepared: 02-Oct-17 Analyzed: 05-Oct-17							
Mercury	671.6	1.78	15.9	ng/g	398.41	378.8	73.5	71-125			
Matrix Spike Dup (F710195-MSD3)		Source: 1709612-05		Prepared: 02-Oct-17 Analyzed: 05-Oct-17							
Mercury	502.1	1.66	14.8	ng/g	370.37	199.1	81.8	71-125	4.65	24	
Matrix Spike Dup (F710195-MSD4)		Source: 1709613-05		Prepared: 02-Oct-17 Analyzed: 05-Oct-17							
Mercury	638.0	1.62	14.4	ng/g	361.01	378.8	71.8	71-125	2.33	24	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
07-Oct-17 14:55**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26003-171004-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 04, 2017

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7J04018

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	59.17 units	118.35	50.78 units	101.56	97.4 %Rec
SEQ-CAL2	1	1.00 ng/L	113.70 units	113.70	105.30 units	105.30	101.0 %Rec
SEQ-CAL3	1	5.00 ng/L	509.55 units	101.91	501.16 units	100.23	96.1 %Rec
SEQ-CAL4	1	20.00 ng/L	2094.42 units	104.72	2086.03 units	104.30	100.0 %Rec
SEQ-CAL5	1	40.00 ng/L	4404.16 units	110.10	4395.77 units	109.89	105.4 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 104.26 +/- 3.75 3.6% RSD 109.76

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	8.39 units	±1.57	0.08 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	6.452 ng/L	±1.892
BLK	2	3	6.080 ng/L	±1.880
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: RL 10/5/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	DM2	CAL	SEQ-IBL1	1	10/4/2017 10:24:36	76860-1.RAW	10:24:36 AM	8.96			0.6	0.005	0.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	10/4/2017 10:28:45	76861-1.RAW	10:28:45 AM	6.62			-1.8	-0.017	-0.017	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	10/4/2017 10:32:53	76862-1.RAW	10:32:53 AM	9.60			1.2	0.012	0.012	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	10/4/2017 10:37:02	76863-1.RAW	10:37:02 AM	59.17			50.8	0.487	0.487	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	10/4/2017 10:41:10	76864-1.RAW	10:41:10 AM	113.70			105.3	1.010	1.010	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	10/4/2017 10:45:19	76865-1.RAW	10:45:19 AM	509.55			501.2	4.807	4.807	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	10/4/2017 10:49:27	76866-1.RAW	10:49:27 AM	2094.42			2086.0	20.008	20.008	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	10/4/2017 10:53:36	76867-1.RAW	10:53:36 AM	4404.16			4395.8	42.162	42.162	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	10/4/2017 10:57:44	76868-1.RAW	10:57:44 AM	595.51			587.1	5.631	5.631	ng/L	
Hg2600-3	DM2	BLK	F710188-BLK1	20	10/4/2017 11:01:52	76869-1.RAW	11:01:52 AM	53.13	1		44.7	0.429	8.582	ng/L	
Hg2600-3	DM2	BLK	F710188-BLK2	20	10/4/2017 11:06:01	76870-1.RAW	11:06:01 AM	38.66	1		30.3	0.290	5.807	ng/L	
Hg2600-3	DM2	BLK	F710188-BLK3	20	10/4/2017 11:10:09	76871-1.RAW	11:10:09 AM	34.29	1		25.9	0.248	4.967	ng/L	
Hg2600-3	DM2	SAM	*F710188-BLK4	20	10/4/2017 11:14:18	76872-1.RAW	11:14:18 AM	28.91	1		20.5	-0.126	-2.516	ng/L	
Hg2600-3	DM2	SAM	*F710188-BLK5	20	10/4/2017 11:18:26	76873-1.RAW	11:18:26 AM	27.66	1		19.3	-0.138	-2.755	ng/L	
Hg2600-3	DM2	SAM	*F710188-BLK6	20	10/4/2017 11:22:35	76874-1.RAW	11:22:35 AM	22.31	1		13.9	-0.189	-3.783	ng/L	
Hg2600-3	DM2	SAM	*F710188-BLK7	20	10/4/2017 11:26:43	76875-1.RAW	11:26:43 AM	20.18	1		11.8	-0.210	-4.191	ng/L	
Hg2600-3	DM2	SAM	F710188-BS1	20	10/4/2017 11:30:52	76876-1.RAW	11:30:52 AM	552.30	1		543.9	4.894	97.887	ng/L	
Hg2600-3	DM2	SAM	F710188-BSD1	20	10/4/2017 11:35:00	76877-1.RAW	11:35:00 AM	610.70	1		602.3	5.454	109.089	ng/L	
Hg2600-3	DM2	SAM	F710188-BS2	400	10/4/2017 11:39:08	76878-1.RAW	11:39:08 AM	637.52	1		629.1	6.018	2407.271	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	10/4/2017 11:43:17	76879-1.RAW	11:43:17 AM	610.79			602.4	5.778	5.778	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	10/4/2017 11:47:25	76880-1.RAW	11:47:25 AM	43.35			35.0	0.335	0.335	ng/L	
Hg2600-3	DM2	SAM	1709612-01	100	10/4/2017 11:51:34	76881-1.RAW	11:51:34 AM	1413.03	1		1404.6	13.408	1340.809	ng/L	
Hg2600-3	DM2	SAM	1709612-02	100	10/4/2017 11:56:03	76882-1.RAW	11:56:03 AM	2007.40	1		1999.0	19.109	1910.904	ng/L	
Hg2600-3	DM2	SAM	1709612-03	100	10/4/2017 12:00:11	76883-1.RAW	12:00:11 PM	1783.69	1		1775.3	16.963	1696.336	ng/L	
Hg2600-3	DM2	SAM	1709612-04	100	10/4/2017 12:04:20	76884-1.RAW	12:04:20 PM	2040.13	1		2031.7	19.423	1942.297	ng/L	
Hg2600-3	DM2	SAM	1709612-06	100	10/4/2017 12:08:28	76885-1.RAW	12:08:28 PM	3167.79	1		3159.4	30.239	3023.898	ng/L	
Hg2600-3	DM2	SAM	1709612-07	100	10/4/2017 12:12:37	76886-1.RAW	12:12:37 PM	2333.40	1		2325.0	22.236	2223.590	ng/L	
Hg2600-3	DM2	SAM	1709612-08	100	10/4/2017 12:16:45	76887-1.RAW	12:16:45 PM	2327.52	1		2319.1	22.179	2217.949	ng/L	
Hg2600-3	DM2	SAM	1709613-01	100	10/4/2017 12:20:53	76888-1.RAW	12:20:53 PM	3593.03	1		3584.6	34.318	3431.768	ng/L	
Hg2600-3	DM2	SAM	1709613-02	100	10/4/2017 12:25:02	76889-1.RAW	12:25:02 PM	1986.28	1		1977.9	18.907	1890.652	ng/L	
Hg2600-3	DM2	SAM	1709613-03	100	10/4/2017 12:29:10	76890-1.RAW	12:29:10 PM	963.23	1		954.8	9.094	909.383	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	10/4/2017 12:33:19	76891-1.RAW	12:33:19 PM	670.18			661.8	6.348	6.348	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	10/4/2017 12:37:27	76892-1.RAW	12:37:27 PM	66.07			57.7	0.553	0.553	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	10/4/2017 12:41:36	76893-1.RAW	12:41:36 PM	615.16			606.8	5.820	5.820	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	10/4/2017 12:45:44	76894-1.RAW	12:45:44 PM	634.96			626.6	6.010	6.010	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	10/4/2017 12:49:53	76895-1.RAW	12:49:53 PM	45.96			37.6	0.360	0.360	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	10/4/2017 12:54:01	76896-1.RAW	12:54:01 PM	36.65			28.3	0.271	0.271	ng/L	
Hg2600-3	DM2	SAM	1709613-04	100	10/4/2017 12:58:09	76897-1.RAW	12:58:09 PM	1617.98	1		1609.6	15.374	1537.395	ng/L	
Hg2600-3	DM2	SAM	1709613-06	100	10/4/2017 13:02:18	76898-1.RAW	1:02:18 PM	1415.51	1		1407.1	13.432	1343.196	ng/L	
Hg2600-3	DM2	SAM	1709613-07	100	10/4/2017 13:06:26	76899-1.RAW	1:06:26 PM	1241.22	1		1232.8	11.760	1176.025	ng/L	
Hg2600-3	DM2	SAM	1709613-08	100	10/4/2017 13:10:35	76900-1.RAW	1:10:35 PM	3050.78	1		3042.4	29.117	2911.671	ng/L	
Hg2600-3	DM2	SAM	1709613-09	100	10/4/2017 13:14:43	76901-1.RAW	1:14:43 PM	1624.51	1		1616.1	15.437	1543.658	ng/L	
Hg2600-3	DM2	SAM	1709613-10	100	10/4/2017 13:18:52	76902-1.RAW	1:18:52 PM	3076.51	1		3068.1	29.364	2936.353	ng/L	
Hg2600-3	DM2	SAM	1709613-11	100	10/4/2017 13:23:00	76903-1.RAW	1:23:00 PM	1792.77	1		1784.4	17.050	1705.046	ng/L	
Hg2600-3	DM2	SAM	1709613-12	100	10/4/2017 13:27:09	76904-1.RAW	1:27:09 PM	1441.32	1		1432.9	13.679	1367.948	ng/L	
Hg2600-3	DM2	SAM	1709613-13	100	10/4/2017 13:31:17	76905-1.RAW	1:31:17 PM	2087.56	1		2079.2	19.878	1987.789	ng/L	
Hg2600-3	DM2	SAM	1709613-14	100	10/4/2017 13:35:25	76906-1.RAW	1:35:25 PM	1749.42	1		1741.0	16.635	1663.460	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	10/4/2017 13:39:34	76907-1.RAW	1:39:34 PM	692.94			684.5	6.566	6.566	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	10/4/2017 13:43:42	76908-1.RAW	1:43:42 PM	63.30			54.9	0.527	0.527	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	10/4/2017 13:47:51	76909-1.RAW	1:47:51 PM	649.51			641.1	6.149	6.149	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	10/4/2017 13:51:59	76910-1.RAW	1:51:59 PM	651.11			642.7	6.165	6.165	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	10/4/2017 13:56:08	76911-1.RAW	1:56:08 PM	53.51			45.1	0.433	0.433	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	10/4/2017 14:00:16	76912-1.RAW	2:00:16 PM	44.03			35.6	0.342	0.342	ng/L	
Hg2600-3	DM2	SAM	F710188-DUP1	100	10/4/2017 14:05:56	76913-1.RAW	2:05:56 PM	2113.42	1		2105.0	20.126	2012.593	ng/L	
Hg2600-3	DM2	SAM	F710188-MS1	400	10/4/2017 14:10:05	76914-1.RAW	2:10:05 PM	2120.80	1		2112.4	20.245	8098.061	ng/L	
Hg2600-3	DM2	SAM	F710188-MSD1	400	10/4/2017 14:14:13	76915-1.RAW	2:14:13 PM	2073.72	1		2065.3	19.794	7917.412	ng/L	
Hg2600-3	DM2	SAM	F710188-MS2	400	10/4/2017 14:18:22	76916-1.RAW	2:18:22 PM	2413.30	1		2404.9	23.051	9220.261	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	DM2	SAM	F710188-MSD2	400	10/4/2017 14:22:30	76917-1.RAW	2:22:30 PM	2400.91	1						
Hg2600-3	DM2	SAM	*F710195-BLK1	20	10/4/2017 14:26:39	76918-1.RAW	2:26:39 PM	79.10	2		2392.5	22.932	9172.731	ng/L	
Hg2600-3	DM2	BLK	F710195-BLK2	20	10/4/2017 14:30:47	76919-1.RAW	2:30:47 PM	51.06	2		70.7	0.374	7.483	ng/L	
Hg2600-3	DM2	BLK	F710195-BLK3	20	10/4/2017 14:34:55	76920-1.RAW	2:34:55 PM	37.02	2		42.7	0.409	8.184	ng/L	
Hg2600-3	DM2	SAM	*F710195-BLK4	20	10/4/2017 14:39:04	76921-1.RAW	2:39:04 PM	31.85	2		28.6	0.275	5.493	ng/L	
Hg2600-3	DM2	SAM	*F710195-BLK5	20	10/4/2017 14:43:12	76922-1.RAW	2:43:12 PM	36.83	2		23.5	-0.079	-1.580	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	10/4/2017 14:47:21	76923-1.RAW	2:47:21 PM	615.92			28.4	-0.031	-0.626	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	10/4/2017 14:51:29	76924-1.RAW	2:51:29 PM	43.88			607.5	5.827	5.827	ng/L	
Hg2600-3	DM2	BLK	F710195-BLK6	20	10/4/2017 14:55:38	76925-1.RAW	2:55:38 PM	32.18	2		35.5	0.340	0.340	ng/L	
Hg2600-3	DM2	SAM	F710195-BS1	20	10/4/2017 14:59:46	76926-1.RAW	2:59:46 PM	613.52	2		23.8	0.228	4.564	ng/L	
Hg2600-3	DM2	SAM	F710195-BS2	20	10/4/2017 15:03:54	76927-1.RAW	3:03:54 PM	655.4614877	2		605.1	5.500	110.001	ng/L	
Hg2600-3	DM2	SAM	1709612-05	400	10/4/2017 15:08:03	76928-1.RAW	3:08:03 PM	633.49	2		647.1	5.902	118.048	ng/L	
Hg2600-3	DM2	SAM	1709613-05	400	10/4/2017 15:12:11	76929-1.RAW	3:12:11 PM	674.12	2		625.1	5.980	2392.197	ng/L	
Hg2600-3	DM2	SAM	1709613-15	400	10/4/2017 15:16:20	76930-1.RAW	3:16:20 PM	1254.11	2		665.7	6.370	2548.058	ng/L	
Hg2600-3	DM2	SAM	1709613-16	400	10/4/2017 15:20:28	76931-1.RAW	3:20:28 PM	1115.47	2		1245.7	11.933	4773.265	ng/L	
Hg2600-3	DM2	SAM	1709613-17	400	10/4/2017 15:24:37	76932-1.RAW	3:24:37 PM	268.43	2		1107.1	10.603	4241.371	ng/L	
Hg2600-3	DM2	SAM	1709613-18	400	10/4/2017 15:28:45	76933-1.RAW	3:28:45 PM	619.07	2		260.0	2.479	991.598	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	10/4/2017 15:32:54	76934-1.RAW	3:32:54 PM	521.87	2		610.7	5.842	2336.860	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	10/4/2017 15:37:02	76935-1.RAW	3:37:02 PM	646.44			513.5	4.910	1963.955	ng/L	
Hg2600-3	DM2	SAM	1709613-19	400	10/4/2017 15:41:10	76936-1.RAW	3:41:10 PM	49.89			638.0	6.120	6.120	ng/L	
Hg2600-3	DM2	SAM	1709613-20	400	10/4/2017 15:45:41	76937-1.RAW	3:45:41 PM	275.56	2		41.5	0.398	0.398	ng/L	
Hg2600-3	DM2	SAM	1709614-03	400	10/4/2017 15:49:49	76938-1.RAW	3:49:49 PM	270.55	2		267.2	2.547	1018.940	ng/L	
Hg2600-3	DM2	SAM	1709614-04	400	10/4/2017 15:53:58	76939-1.RAW	3:53:58 PM	1343.71	2		262.2	2.499	999.737	ng/L	
Hg2600-3	DM2	SAM	1709614-05	400	10/4/2017 15:58:06	76940-1.RAW	3:58:06 PM	824.01	2		1335.3	12.793	5117.011	ng/L	
Hg2600-3	DM2	SAM	1709614-06	400	10/4/2017 16:02:15	76941-1.RAW	4:02:15 PM	695.92	2		815.6	7.808	3123.128	ng/L	
Hg2600-3	DM2	SAM	1709614-07	400	10/4/2017 16:06:23	76942-1.RAW	4:06:23 PM	237.18	2		687.5	6.579	2631.684	ng/L	
Hg2600-3	DM2	SAM	1709614-08	400	10/4/2017 16:10:32	76943-1.RAW	4:10:32 PM	1060.98	2		228.8	2.179	871.691	ng/L	
Hg2600-3	DM2	SAM	1709614-09	400	10/4/2017 16:14:40	76944-1.RAW	4:14:40 PM	1459.41	2		1052.6	10.081	4032.319	ng/L	
Hg2600-3	DM2	SAM	1709614-10	400	10/4/2017 16:18:48	76945-1.RAW	4:18:48 PM	289.94	2		1451.0	13.902	5560.908	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVA	1	10/4/2017 16:22:57	76946-1.RAW	4:22:57 PM	709.68	2		281.5	2.685	1074.117	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	10/4/2017 16:27:05	76947-1.RAW	4:27:05 PM	634.95			701.3	6.711	2684.499	ng/L	
Hg2600-3	DM2	SAM	1709614-11	400	10/4/2017 16:31:14	76948-1.RAW	4:31:14 PM	48.25			626.6	6.010	6.010	ng/L	
Hg2600-3	DM2	SAM	1709614-12	400	10/4/2017 16:35:49	76949-1.RAW	4:35:49 PM	337.92	2		39.9	0.382	0.382	ng/L	
Hg2600-3	DM2	SAM	1709614-13	400	10/4/2017 16:39:58	76950-1.RAW	4:39:58 PM	227.32	2		329.5	3.146	1258.203	ng/L	
Hg2600-3	DM2	SAM	1709614-14	400	10/4/2017 16:44:06	76951-1.RAW	4:44:06 PM	990.21	2		218.9	2.085	833.876	ng/L	
Hg2600-3	DM2	SAM	F710195-DUP1	400	10/4/2017 16:48:15	76952-1.RAW	4:48:15 PM	224.22	2		981.8	9.402	3760.771	ng/L	
Hg2600-3	DM2	SAM	F710195-MS1	400	10/4/2017 16:52:23	76953-1.RAW	4:52:23 PM	640.26	2		215.8	2.055	821.958	ng/L	
Hg2600-3	DM2	SAM	F710195-MSD1	400	10/4/2017 16:56:32	76954-1.RAW	4:56:32 PM	2123.75	2		631.9	6.045	2418.141	ng/L	
Hg2600-3	DM2	SAM	F710195-MS2	400	10/4/2017 17:00:40	76955-1.RAW	5:00:40 PM	2243.91	2		2115.4	20.274	8109.736	ng/L	
Hg2600-3	DM2	SAM	F710195-MSD2	400	10/4/2017 17:04:49	76956-1.RAW	5:04:49 PM	2644.84	2		2235.5	21.427	8570.770	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVB	1	10/4/2017 17:08:57	76957-1.RAW	5:08:57 PM	2898.40	2		2636.4	25.272	10108.957	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBB	1	10/4/2017 17:13:04	76958-1.RAW	5:13:04 PM	683.31			2890.0	27.705	11081.802	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVC	1	10/4/2017 17:17:11	76959-1.RAW	5:17:11 PM	59.38			674.9	6.473	6.473	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVD	1	10/4/2017 17:21:19	76960-1.RAW	5:21:19 PM	638.48			51.0	0.489	0.489	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBC	1	10/4/2017 17:25:27	76961-1.RAW	5:25:27 PM	661.22			630.1	6.043	6.043	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBD	1	10/4/2017 17:29:35	76962-1.RAW	5:29:35 PM	52.79			652.8	6.262	6.262	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBD	1	10/4/2017 17:33:44	76963-1.RAW	5:33:44 PM	40.20			44.4	0.426	0.426	ng/L	
											31.8	0.305	0.305	ng/L	

TotalMercury EPA1631
 Operat DM
 Workst THg2601
 Method #####
 Descrip THg26003-171004-1

Blanks 8.3923
 CalibEqn: 104.26
 Status: 0.9997
 R: 0.9997
 R2:

Conc = (Area-8.392
 QC Warnings:6/QC E
 0.9994

Run Date: 10/4/2017
 Run Time: 16:31:40

Blank SD: 1.571514632
 Blank RSD%: 18.72565975
 CF SD: 3.753088289
 CF RSD%: 3.599794362

Sample/ID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (elf)	Flags	RunCount
Clean				0.00	4.93					76855-1.RAW	10:05:11	513.48	Clean	OK	1
CLEAN										76856-1.RAW	10:08:03	0.00	Clean	NP	1
WS				8.39	0.00					76857-1.RAW	10:12:11	6.11	Sample	OK	1
WS				8.39	0.00					76858-1.RAW	10:16:20	6.18	Sample	OK	1
WS				8.39	0.00					76859-1.RAW	10:20:28	5.45	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.09					76860-1.RAW	10:24:36	8.96	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.06					76861-1.RAW	10:28:45	6.62	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.09					76862-1.RAW	10:32:53	9.60	Sample	OK	1
SEQ-CAL1	A4		1	8.39	0.49			97.41		76863-1.RAW	10:37:02	59.17	Sample	OK	1
SEQ-CAL2	A5		1	8.39	1.01			101.00		76864-1.RAW	10:41:10	113.70	Sample	OK	1
SEQ-CAL3	A6		1	8.39	4.81			96.14		76865-1.RAW	10:45:19	509.55	Sample	OK	1
SEQ-CAL4	A7		1	8.39	20.01			100.04		76866-1.RAW	10:49:27	2094.42	Sample	OK	1
SEQ-CAL5	A8		1	8.39	42.16			105.41		76867-1.RAW	10:53:36	4404.16	Sample	FB	1
SEQ-ICV1	A9		1	8.39	5.63			112.63		76868-1.RAW	10:57:44	595.51	Sample	OK	1
F710188-BLK1	A10		20	8.39	8.58					76869-1.RAW	11:01:52	53.13	Sample	OK	1
F710188-BLK2	A11		20	8.39	5.81					76870-1.RAW	11:06:01	38.66	Sample	OK	1
F710188-BLK3	A12		20	8.39	4.97					76871-1.RAW	11:10:09	34.29	Sample	OK	1
*F710188-BLK4	B1		20	8.39	3.94					76872-1.RAW	11:14:18	28.91	Sample	OK	1
*F710188-BLK5	B2		20	8.39	3.70					76873-1.RAW	11:18:26	27.66	Sample	OK	1
*F710188-BLK6	B3		20	8.39	2.67					76874-1.RAW	11:22:35	22.31	Sample	OK	1
*F710188-BLK7	B4		20	8.39	2.26					76875-1.RAW	11:26:43	20.18	Sample	OK	1
F710188-BS1	B5		20	8.39	104.34					76876-1.RAW	11:30:52	552.30	Sample	OK	1
F710188-BSD1	B6		20	8.39	115.54					76877-1.RAW	11:35:00	610.70	Sample	OK	1
F710188-BS2	B7		400	8.39	2413.72					76878-1.RAW	11:39:08	637.52	Sample	OK	1
SEQ-CCV1	B8		1	8.39	5.78			115.56		76879-1.RAW	11:43:17	610.79	Sample	OK	1
SEQ-CCB1	B9		1	8.39	0.34			0.00		76880-1.RAW	11:47:25	43.35	Sample	OK	1
1709612-01	B10		100	8.39	1347.26					76881-1.RAW	11:51:34	1413.03	Sample	OK	1
1709612-02	B11		100	8.39	1917.36					76882-1.RAW	11:56:03	2007.40	Sample	OK	1
1709612-03	B12		100	8.39	1702.79					76883-1.RAW	12:00:11	1783.69	Sample	FB	1
1709612-04	C1		100	8.39	1948.75					76884-1.RAW	12:04:20	2040.13	Sample	OK	1
1709612-06	C2		100	8.39	3030.35					76885-1.RAW	12:08:28	3167.79	Sample	OK	1
1709612-07	C3		100	8.39	2230.04					76886-1.RAW	12:12:37	2333.40	Sample	FB	1
1709612-08	C4		100	8.39	2224.40					76887-1.RAW	12:16:45	2327.52	Sample	OK	1
1709613-01	C5		100	8.39	3438.22					76888-1.RAW	12:20:53	3593.03	Sample	FB	1
1709613-02	C6		100	8.39	1897.10					76889-1.RAW	12:25:02	1986.28	Sample	OK	1
1709613-03	C7		100	8.39	915.84					76890-1.RAW	12:29:10	963.23	Sample	OK	1
SEQ-CCV2	C8		1	8.39	6.35			126.95		76891-1.RAW	12:33:19	670.18	Sample	OK	1
SEQ-CCB2	C9		1	8.39	0.55			0.00		76892-1.RAW	12:37:27	66.07	Sample	OK	1
SEQ-CCV3	A1		1	8.39	5.82			116.40		76893-1.RAW	12:41:36	615.16	Sample	OK	1
SEQ-CCV4	A2		1	8.39	6.01			120.20		76894-1.RAW	12:45:44	634.96	Sample	OK	1
SEQ-CCB3	A3		1	8.39	0.36			0.00		76895-1.RAW	12:49:53	45.96	Sample	OK	1
SEQ-CCB4	A4		1	8.39	0.27			0.00		76896-1.RAW	12:54:01	36.65	Sample	OK	1
1709613-04	C10		100	8.39	1543.85					76897-1.RAW	12:58:09	1617.98	Sample	OK	1
1709613-06	C11		100	8.39	1349.65					76898-1.RAW	13:02:18	1415.51	Sample	FB	1
1709613-07	C12		100	8.39	1182.48					76899-1.RAW	13:06:26	1241.22	Sample	OK	1
1709613-08	D1		100	8.39	2918.12					76900-1.RAW	13:10:35	3050.78	Sample	FB	1
1709613-09	D2		100	8.39	1550.11					76901-1.RAW	13:14:43	1624.51	Sample	OK	1
1709613-10	D3		100	8.39	2942.81					76902-1.RAW	13:18:52	3076.51	Sample	OK	1
1709613-11	D4		100	8.39	1711.50					76903-1.RAW	13:23:00	1792.77	Sample	OK	1
1709613-12	D5		100	8.39	1374.40					76904-1.RAW	13:27:09	1441.32	Sample	OK	1
1709613-13	D6		100	8.39	1994.24					76905-1.RAW	13:31:17	2087.56	Sample	OK	1
1709613-14	D7		100	8.39	1669.91					76906-1.RAW	13:35:25	1749.42	Sample	FB	1
SEQ-CCV5	D8		1	8.39	6.57			131.32		76907-1.RAW	13:39:34	692.94	Sample	OK	1
SEQ-CCB5	D9		1	8.39	0.53			0.00		76908-1.RAW	13:43:42	63.30	Sample	OK	1
SEQ-CCV6	C1		1	8.39	6.15			122.99		76909-1.RAW	13:47:51	649.51	Sample	OK	1
SEQ-CCV7	C2		1	8.39	6.16			123.29		76910-1.RAW	13:51:59	651.11	Sample	OK	1
SEQ-CCB6	C3		1	8.39	0.43			0.00		76911-1.RAW	13:56:08	53.51	Sample	OK	1
SEQ-CCB7	C4		1	8.39	0.34			0.00		76912-1.RAW	14:00:16	44.03	Sample	OK	1
F710188-DUP1	D10		100	8.39	2019.05					76913-1.RAW	14:05:56	2113.42	Sample	FB	1
F710188-MS1	D11		400	8.39	8104.51			401.20		76914-1.RAW	14:10:05	2120.80	Sample	FB	1
F710188-MSD1	D12		400	8.39	7923.86					76915-1.RAW	14:14:13	2073.72	Sample	OK	1
F710188-MS2	A1		400	8.39	9226.71			116.41		76916-1.RAW	14:18:22	2413.30	Sample	FB	1

ANALYSIS SEQUENCE

7J04018

Instrument: Hg2600-3 ✓

Calibration ID: UNASSIGNED

Analyzed: 10/4/2017 ✓

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J04018-IBL1 ✓	QC	1			
7J04018-IBL2 ✓	QC	2			
7J04018-IBL3 ✓	QC	3			
7J04018-CAL1 ✓	QC	4	1704505 ✓		
7J04018-CAL2 ✓	QC	5	1704506 ✓		
7J04018-CAL3 ✓	QC	6	1704507 ✓		
7J04018-CAL4 ✓	QC	7	1704508 ✓		
7J04018-CAL5 ✓	QC	8	1704509 ✓		
7J04018-ICV1 ✓	QC	9	1705628 ✓		
F710188-BLK1 ✓	QC	10			
F710188-BLK2 ✓	QC	11			
F710188-BLK3 ✓	QC	12			
F710188-BLK4 ✓	QC	13			
F710188-BLK5 ✓	QC	14			
F710188-BLK6 ✓	QC	15			
F710188-BLK7 ✓	QC	16			
F710188-BS1 ✓	QC	17			
F710188-BSD1 ✓	QC	18			
F710188-BS2 ✓	QC	19			
7J04018-CCV1 ✓	QC	20	1705628 ✓		
7J04018-CCB1 ✓	QC	21			
1709612-01 ✓	Hg-CVAFS-T-7030	22			
1709612-02 ✓	Hg-CVAFS-T-7030	23			
1709612-03 ✓	Hg-CVAFS-T-7030	24			
1709612-04 ✓	Hg-CVAFS-T-7030	25			
1709612-06 ✓	Hg-CVAFS-T-7030	26			
1709612-07 ✓	Hg-CVAFS-T-7030	27			
1709612-08 ✓	Hg-CVAFS-T-7030	28			
1709613-01 ✓	Hg-CVAFS-T-7030	29			
1709613-02 ✓	Hg-CVAFS-T-7030	30			
1709613-03 ✓	Hg-CVAFS-T-7030	31			
7J04018-CCV2 ✓	QC	32	1705628 ✓		
7J04018-CCB2 ✓	QC	33			
7J04018-CCV3 ✓	QC	34	1705628 ✓		
7J04018-CCV4 ✓	QC	35	1705628 ✓		

Due Date: 10/20/2017

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ANALYSIS SEQUENCE

7J04018

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/4/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J04018-CCB3 /	QC	36			
7J04018-CCB4 /	QC	37			
1709613-04 /	Hg-CVAFS-T-7030	38			
1709613-06 /	Hg-CVAFS-T-7030	39			
1709613-07 /	Hg-CVAFS-T-7030	40			
1709613-08 /	Hg-CVAFS-T-7030	41			
1709613-09 /	Hg-CVAFS-T-7030	42			
1709613-10 /	Hg-CVAFS-T-7030	43			
1709613-11 /	Hg-CVAFS-T-7030	44			
1709613-12 /	Hg-CVAFS-T-7030	45			
1709613-13 /	Hg-CVAFS-T-7030	46			
1709613-14 /	Hg-CVAFS-T-7030	47			
7J04018-CCV5 /	QC	48	1705628	/	
7J04018-CCB5 /	QC	49			
7J04018-CCV6 /	QC	50	1705628	/	
7J04018-CCV7 /	QC	51	1705628	/	
7J04018-CCB6	QC	52			
7J04018-CCB7 /	QC	53			
F710188-DUP1 /	QC	54			
F710188-MS1 /	QC	55			
F710188-MSD1 /	QC	56			
F710188-MS2 /	QC	57			
F710188-MSD2 /	QC	58			
F710195-BLK1 /	QC	59			
F710195-BLK2 /	QC	60			
F710195-BLK3 /	QC	61			
F710195-BLK4 /	QC	62			
F710195-BLK5 /	QC	63			
7J04018-CCV8 /	QC	64	1705628	/	
7J04018-CCB8 /	QC	65			
F710195-BLK6 /	QC	66			
F710195-BS1 /	QC	67			
F710195-BSD1 /	QC	68			
F710195-BS2 /	QC	69			
1709612-05 /	Hg-CVAFS-T-7030	70			

Due Date: 10/20/2017

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ANALYSIS SEQUENCE

7J04018

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/4/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709613-05 ✓	Hg-CVAFS-T-7030	71			
1709613-15 ✓	Hg-CVAFS-T-7030	72			
1709613-16 ✓	Hg-CVAFS-T-7030	73			
1709613-17 ✓	Hg-CVAFS-T-7030	74			
1709613-18 ✓	Hg-CVAFS-T-7030	75			
7J04018-CCV9 ✓	QC	76	1705628 ✓		
7J04018-CCB9 ✓	QC	77			
1709613-19 ✓	Hg-CVAFS-T-7030	78			
1709613-20 ✓	Hg-CVAFS-T-7030	79			
1709614-03 ✓	Hg-CVAFS-T-7030	80			
1709614-04 ✓	Hg-CVAFS-T-7030	81			
1709614-05 ✓	Hg-CVAFS-T-7030	82			
1709614-06 ✓	Hg-CVAFS-T-7030	83			
1709614-07 ✓	Hg-CVAFS-T-7030	84			
1709614-08 ✓	Hg-CVAFS-T-7030	85			
1709614-09 ✓	Hg-CVAFS-T-7030	86			
1709614-10 ✓	Hg-CVAFS-T-7030	87			
7J04018-CCVA ✓	QC	88	1705628 ✓		
7J04018-CCBA ✓	QC	89			
1709614-11 ✓	Hg-CVAFS-T-7030	90			
1709614-12 ✓	Hg-CVAFS-T-7030	91			
1709614-13 ✓	Hg-CVAFS-T-7030	92			
1709614-14 ✓	Hg-CVAFS-T-7030	93			
F710195-DUP1 ✓	QC	94			
F710195-MS1 ✓	QC	95			
F710195-MSD1 ✓	QC	96			
F710195-MS2 ✓	QC	97			
F710195-MSD2 ✓	QC	98			
7J04018-CCVB ✓	QC	99	1705628 ✓		
7J04018-CCBB ✓	QC	100			
7J04018-CCVC ✓	QC	101	1705628 ✓		
7J04018-CCVD ✓	QC	102	1705628 ✓		
7J04018-CCBC ✓	QC	103			
7J04018-CCBD ✓	QC	104			

Due Date: 10/20/2017

30 of 50

Page 3 of 4

ANALYSIS SEQUENCE

7J04018

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/4/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Don Maxem 10/4/17
Samples Loaded By Date

Don Maxem 10/4/17
Data Processed By Date

PREPARATION BENCH SHEET

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710188-BLK1	Blank	0.25	20					
F710188-BLK2	Blank	0.25	20					
F710188-BLK3	Blank	0.25	20					
F710188-BLK4	Blank	0.2703	20					Pre-homogenization Blank for 1709612
F710188-BLK5	Blank	0.2768	20					Post-homogenization Blank for 1709612
F710188-BLK6	Blank	0.2545	20					Pre-homogenization Blank for 1709613
F710188-BLK7	Blank	0.2889	20					Post-homogenization Blank for 1709613
F710188-BS1	LCS	0.25	20	1704421	20			
F710188-BS2	LCS	0.1263	20	1705412	126.3			
F710188-BSD1	LCS Dup	0.25	20	1704421	20			
F710188-DUP1	Duplicate [1709612-02]	0.2503	20					
F710188-MS1	Matrix Spike [1709612-02]	0.2631	20	1705554	100			
F710188-MS2	Matrix Spike [1709613-01]	0.2659	20	1705554	100			
F710188-MSD1	Matrix Spike Dup [1709612-02]	0.2617	20	1705554	100			
F710188-MSD2	Matrix Spike Dup [1709613-01]	0.2645	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705823	5% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00

PREPARATION BENCH SHEET

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709612-01	BO-04_17ET008_091717_TOM_01_WB	0.2569	20	-	-	-		
1709612-02	BO-04_17ET010_091717_TOM_02_WB	0.2587	20	QC	-	-	MS/MSD	
1709612-03	BO-04_17ET014_091717_TOM_03_WB	0.2763	20	-	-	-		
1709612-04	BO-04_17ET025_092017_TOM_04_WB	0.2548	20	-	-	-		
1709612-06	BO-04_17ET030_092017_TOM_06_WB	0.27	20	-	-	-		
1709612-07	BO-04_17ET035_092017_TOM_07_WB	0.2573	20	-	-	-		
1709612-08	BO-04_17ET041_092017_TOM_08_WB	0.2735	20	-	-	-		
1709613-01	OB-05_17ET002_091717_TOM_01_WB	0.2564	20	QC	-	-	MS/MSD	
1709613-02	OB-05_17ET002_091717_TOM_02_WB	0.2716	20	-	-	-		
1709613-03	OB-05_17ET003_091717_TOM_03_WB	0.2574	20	-	-	-		
1709613-04	OB-05_17ET003_091717_TOM_04_WB	0.2529	20	-	-	-		
1709613-06	OB-05_17ET010_091717_TOM_06_WB	0.2692	20	-	-	-		
1709613-07	OB-05_17ET011_091717_TOM_07_WB	0.2592	20	-	-	-		
1709613-08	OB-05_17ET012_091717_TOM_08_WB	0.2532	20	-	-	-		
1709613-09	OB-05_17ET012_091717_TOM_09_WB	0.2626	20	-	-	-		
1709613-10	OB-05_17ET013_091717_TOM_10_WB	0.2582	20	-	-	-	Sample contains enough volume for QC	
1709613-11	OB-05_17ET013_091717_TOM_11_WB	0.2752	20	-	-	-		
1709613-12	OB-05_17ET014_091717_TOM_12_WB	0.265	20	-	-	-		
1709613-13	OB-05_17ET 014_091717_TOM_13_WB	0.2506	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709613-14	OB-05_17ET014_091717_TOM_14_WB	0.2636	20	-	-	-		
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PREPARATION BENCH SHEET

2000-3
10/4/17 DM

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710188-BLK1	Blank	0.25	20					20X
F710188-BLK2	Blank	0.25	20					20X
F710188-BLK3	Blank	0.25	20					20X
F710188-BLK4	Blank	0.2703	20					Pre-homogenization Blank for 1709612 20X
F710188-BLK5	Blank	0.2768	20					Post-homogenization Blank for 1709612 20X
F710188-BLK6	Blank	0.2545	20					Pre-homogenization Blank for 1709613 20X
F710188-BLK7	Blank	0.2889	20					Post-homogenization Blank for 1709613 20X
F710188-BS1	LCS	0.25	20	1704421	20			20X
F710188-BS2	LCS	0.1263	20	1705412	126.3			400X
F710188-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710188-DUP1	Duplicate [1709612-02]	0.2503	20					100X
F710188-MS1	Matrix Spike [1709612-02]	0.2631	20	1705554	100			400X
F710188-MS2	Matrix Spike [1709613-01]	0.2659	20	1705554	100			400X
F710188-MSD1	Matrix Spike Dup [1709612-02]	0.2617	20	1705554	100			400X
F710188-MSD2	Matrix Spike Dup [1709613-01]	0.2645	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1705412	DORM-4	06-Jan-20 00:00	1705823	5% BrCl	22-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00

20X = 2.5mL
400X = 125µl
100X = 500µl

1705779
1705411
1705610
1703182

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-3
10/4/17 DM

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709612-01	BO-04_17ET008_091717_TOM_01_WB	0.2569	20	-	-	-		100X ✓
1709612-02	BO-04_17ET010_091717_TOM_02_WB	0.2587	20	QC	-	-	MS/MSD	100X ✓
1709612-03	BO-04_17ET014_091717_TOM_03_WB	0.2763	20	-	-	-		100X ✓
1709612-04	BO-04_17ET025_092017_TOM_04_WB	0.2548	20	-	-	-		100X ✓
1709612-06	BO-04_17ET030_092017_TOM_06_WB	0.27	20	-	-	-		100X ✓
1709612-07	BO-04_17ET035_092017_TOM_07_WB	0.2573	20	-	-	-		100X ✓
1709612-08	BO-04_17ET041_092017_TOM_08_WB	0.2735	20	-	-	-		100X ✓
1709613-01	OB-05_17ET002_091717_TOM_01_WB	0.2564	20	QC	-	-	MS/MSD	100X ✓
1709613-02	OB-05_17ET002_091717_TOM_02_WB	0.2716	20	-	-	-		100X ✓
1709613-03	OB-05_17ET003_091717_TOM_03_WB	0.2574	20	-	-	-		100X ✓
1709613-04	OB-05_17ET003_091717_TOM_04_WB	0.2529	20	-	-	-		100X ✓
1709613-06	OB-05_17ET010_091717_TOM_06_WB	0.2692	20	-	-	-		100X ✓
1709613-07	OB-05_17ET011_091717_TOM_07_WB	0.2592	20	-	-	-		100X ✓
1709613-08	OB-05_17ET012_091717_TOM_08_WB	0.2532	20	-	-	-		100X ✓
1709613-09	OB-05_17ET012_091717_TOM_09_WB	0.2626	20	-	-	-		100X ✓
1709613-10	OB-05_17ET013_091717_TOM_10_WB	0.2582	20	-	-	-	Sample contains enough volume for QC	100X ✓
1709613-11	OB-05_17ET013_091717_TOM_11_WB	0.2752	20	-	-	-		100X ✓
1709613-12	OB-05_17ET014_091717_TOM_12_WB	0.265	20	-	-	-		100X ✓
1709613-13	OB-05_17ET 014_091717_TOM_13_WB	0.2506	20	-	-	-		100X ✓

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2100-3
10/4/17 DM

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709613-14	OB-05_17ET014_091717_TOM_14_WB	0.2636	20	-	-	-	100% ✓
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Technician: CWF Batch#: F710188 Date: 10/2/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance #: 19 Calibrated? Yes No Therm. #: 14949 Calibrated? Yes No

*Time in: 16:30 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C

Time out: 18:30 Actual Temp. (raw): 84.0 °C w/ CF: 84.1 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705823) Spike vol.: 100 µL (LIMS ID: 1705554)

Spike Witness: R 10-2-17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: MUM619 Calibration Date: 9/26/17

HNO₃ LIMS ID: N/A

Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1705859

Dispenser #: 0202749 Calibrated? Yes No

Other Acid LIMS ID: N/A

Dispenser #: 15406623

Glass Vial # 00068647 Boiling Chip lot # 1704424 *Hotblock Position: LS

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F710188 - Blk1	0.2554	23	1709613 -- 06	0.2692	BS2 = DO RM-4
2	F710188 - Blk2	0.2689	24	1709613 - 07	0.2592	LIMS: 1705412
3	F710188 - Blk3	0.2706	25	1709613 - 08	0.2737 0.2532	
4	F710188 - BS1	0.2766	26	1709613 - 09	0.2626	Comments
5	F710188 - BSD1	0.2666	27	1709613 - 10	0.2582	DUP1/MS1/MSD1
6	F710188 - BS2	0.1263	28	1709613 - 11	0.2752	source: 1709612-02
7	1709612 - 01	0.2569	29	1709613 - 12	0.2650	MS2/MSD2
8	1709612 - 02	0.2587	30	1709613 - 13	0.2506	source: 1709613-01
9	F710188 - DUP1	0.2503	31	1709613 - 14	0.2636	Blk4 + 5 are
10	F710188 - MS1	0.2631	32	F710188 - Blk4	0.2703	Pre/Post blanks for
11	F710188 - MSD1	0.2617	33	1710188 - Blk5	0.2768	1709612 respectively
12	1709612 - 03	0.2763	34	1710188 - Blk6	0.2545	Blk6 + 7 are
13	1709612 - 04	0.2548	35	1710188 - Blk7	0.2889	Pre/Post blanks for
14	1709612 - 06	0.2700	36			1709613 respectively
15	1709612 - 07	0.2573	37			BS1/BSD1 spiked
16	1709612 - 08	0.2735	38			with 20µL of
17	1709613 - 01	0.2564	39			1704421
18	F710188 - MS2	0.2659	40			
19	F710188 - MSD2	0.2645	41			
20	1709613 - 02	0.2716	42			
21	1709613 - 03	0.2574	43			
22	1709613 - 04	0.2529	44			

CWF
10/3/17

CWF
10/3/17

PREPARATION BENCH SHEET

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710195-BLK1	Blank	0.25	20					
F710195-BLK2	Blank	0.25	20					
F710195-BLK3	Blank	0.25	20					
F710195-BLK4	Blank	0.25	20					Pre-homogenization Blank for 1709614
F710195-BLK5	Blank	0.279	20					Post-homogenization Blank for 1709614
F710195-BLK6	Blank	0.25	20					RR of BLK1
F710195-BS1	LCS	0.25	20	1704421	20			
F710195-BS2	LCS	0.1279	20	1705412	127.9			
F710195-BSD1	LCS Dup	0.25	20	1704421	20			
F710195-DUP1	Duplicate [1709612-05]	0.256	20					
F710195-MS1	Matrix Spike [1709612-05] ✓	0.255	20	1705554	100			
F710195-MS2	Matrix Spike [1709613-05] ✓	0.251	20	1705554	100			
F710195-MSD1	Matrix Spike Dup [1709612-05] ✓	0.27	20	1705554	100			
F710195-MSD2	Matrix Spike Dup [1709613-05] ✓	0.277	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl ₂ THg reductant	13-Mar-18 00:00
			1705823	5% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709612-05	BO-04_17ET026_092017_TOM_05_WB	0.256	20	-	-	-	Sample contains enough volume for QC	
1709613-05	OB-05_17ET009_091717_TOM_05_WB	0.252	20	-	-	-	Sample contains enough volume for QC	
1709613-15	OB-05_17ET014_091717_TOM_15_WB	0.269	20	-	-	-		
1709613-16	OB-05_17ET002_091817_TOM_16_WB	0.276	20	-	-	-		
1709613-17	OB-05_17ET003_091817_TOM_17_WB	0.27	20	-	-	-		
1709613-18	OB-05_17ET003_091817_TOM_18_WB	0.258	20	-	-	-		
1709613-19	OB-05_17ET005_091817_TOM_19_WB	0.26	20	-	-	-		
1709613-20	OB-05_17ET008_091817_TOM_20_WB	0.275	20	-	-	-		
1709614-03	OB-01_17ET001_091617_TOM_03_WB	0.263	20	-	-	-		
1709614-04	OB-01_17ET001_091617_TOM_04_WB	0.268	20	-	-	-		
1709614-05	OB-01_17ET001_091617_TOM_05_WB	0.277	20	-	-	-		
1709614-06	OB-01_17ET001_091617_TOM_06_WB	0.264	20	-	-	-		
1709614-07	OB-01_17ET001_091617_TOM_07_WB	0.262	20	-	-	-		
1709614-08	OB-01_17ET001_091617_TOM_08_WB	0.269	20	-	-	-		
1709614-09	OB-01_17ET001_091617_TOM_09_WB	0.273	20	-	-	-		
1709614-10	OB-01_17ET002_091617_TOM_10_WB	0.262	20	-	-	-		
1709614-11	OB-01_17ET002_091617_TOM_11_WB	0.277	20	-	-	-		
1709614-12	OB-01_17ET002_091617_TOM_12_WB	0.265	20	-	-	-		
1709614-13	OB-01_17ET003_091617_TOM_13_WB	0.27	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709614-14	OB-01_17ET004_091617_TOM_14_WB	0.273	20	-	-	-		
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PREPARATION BENCH SHEET

2600-3
10/4/17 DM

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710195-BLK1	Blank	0.25	20					20x -
F710195-BLK2	Blank	0.25	20					20x -
F710195-BLK3	Blank	0.25	20					20x -
F710195-BLK4	Blank	0.25	20					Pre-homogenization Blank for 1709614 20x
F710195-BLK5	Blank	0.279	20					Post-homogenization Blank for 1709614 20x
F710195-BS1	LCS	0.25	20	1704421	20			20x -
F710195-BS2	LCS	0.1279	20	1705412	127.9			400x -
F710195-BSD1	LCS Dup	0.25	20	1704421	20			20x -
F710195-DUP1	Duplicate 1709612-05	0.256	20					400x -
F710195-MS1	Matrix Spike 1709612-05	0.255	20	1705554	100			400x -
F710195-MS2	Matrix Spike 1709613-05	0.251	20	1705554	100			400x -
F710195-MSD1	Matrix Spike Dup 1709612-05	0.27	20	1705554	100			400x -
F710195-MSD2	Matrix Spike Dup 1709613-05	0.277	20	1705554	100			400x -

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705823	5% BrCl	22-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00

BLK 6 re-run of BLK 1

~~MS1, MSD1 - re-run of MS2, MSD2~~
1/5 DM 10/4

20x = 2.5mL
400x = 125 µl

1705610
1705611
1703182
1705779

Due Date: 10/20/2017

PREPARATION BENCH SHEET

200.3

10/4/17 DM

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709612-05	BO-04_17ET026_092017_TOM_05_WB	0.256	20	-	-	-	Sample contains enough volume for QC	400x ✓
1709613-05	OB-05_17ET009_091717_TOM_05_WB	0.252	20	-	-	-	Sample contains enough volume for QC	400x ✓
1709613-15	OB-05_17ET014_091717_TOM_15_WB	0.269	20	-	-	-		400x ✓
1709613-16	OB-05_17ET002_091817_TOM_16_WB	0.276	20	-	-	-		400x ✓
1709613-17	OB-05_17ET003_091817_TOM_17_WB	0.27	20	-	-	-		400x ✓
1709613-18	OB-05_17ET003_091817_TOM_18_WB	0.258	20	-	-	-		400x ✓
1709613-19	OB-05_17ET005_091817_TOM_19_WB	0.26	20	-	-	-		400x ✓
1709613-20	OB-05_17ET008_091817_TOM_20_WB	0.275	20	-	-	-		400x ✓
1709614-03	OB-01_17ET001_091617_TOM_03_WB	0.263	20	-	-	-		400x ✓
1709614-04	OB-01_17ET001_091617_TOM_04_WB	0.268	20	-	-	-		400x ✓
1709614-05	OB-01_17ET001_091617_TOM_05_WB	0.277	20	-	-	-		400x ✓
1709614-06	OB-01_17ET001_091617_TOM_06_WB	0.264	20	-	-	-		400x ✓
1709614-07	OB-01_17ET001_091617_TOM_07_WB	0.262	20	-	-	-		400x ✓
1709614-08	OB-01_17ET001_091617_TOM_08_WB	0.269	20	-	-	-		400x ✓
1709614-09	OB-01_17ET001_091617_TOM_09_WB	0.273	20	-	-	-		400x ✓
1709614-10	OB-01_17ET002_091617_TOM_10_WB	0.262	20	-	-	-		400x ✓
1709614-11	OB-01_17ET002_091617_TOM_11_WB	0.277	20	-	-	-		400x ✓
1709614-12	OB-01_17ET002_091617_TOM_12_WB	0.265	20	-	-	-		400x ✓
1709614-13	OB-01_17ET003_091617_TOM_13_WB	0.27	20	-	-	-		400x ✓

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-3
10/4/17 DM

F710195

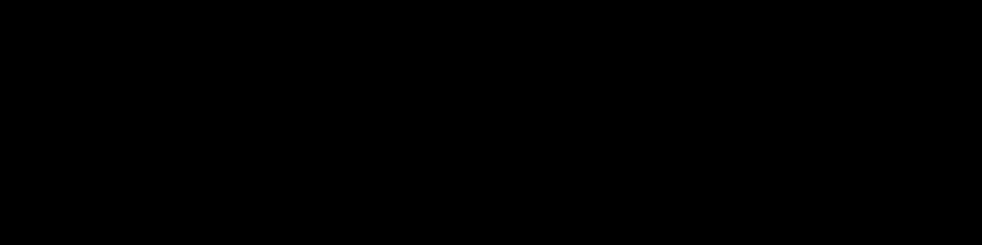
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709614-14	OB-01_17ET004_091617_TOM_14_WB	0.273	20	-	-	-		400X
------------	--------------------------------	-------	----	---	---	---	--	------



Technician: CWF Batch#: FA10195 Date: 10/2/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance #: 102149 6.19 Calibrated? Yes No Therm. #: 14545 Calibrated? Yes No

*Time in: 16:30 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C

Time out: 18:30 Actual Temp. (raw): 84.0 °C w/ CF: 84.1 °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705823) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: A 10-2-17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MUM619 Calibration Date: 9/26/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705859 Dispenser #: 02K2749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 1506023
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: LS

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> BS2 <input type="checkbox"/> NA
1	FA10195 - BLK1	0.268	23	1709614 - 06	0.264	BS2 <input checked="" type="checkbox"/> NA <u>CWF 10/2/17</u>
2	FA10195 - BLK2	0.251	24	1709614 - 07	0.262	<u>BS/BS2 = DORM-4</u> <u>LIMS: 1705412</u>
3	FA10195 - BLK3	0.256	25	1709614 - 08	0.269	
4	FA10195 - BS1	0.264	26	1709614 - 09	0.273	
5	FA10195 - BSD1	0.262	27	1709614 - 10	0.262	<u>Comments</u> <u>DUP/MS/MSD1</u>
6	FA10195 - BS2	0.1279	28	1709614 - 11	0.277	<u>source: 1709612-05</u>
7	1709612 - 05	0.256	29	1709614 - 12	0.265	<u>MS2/MSD2</u>
8	FA10195 - DUP1	0.256	30	1709614 - 13	0.270	<u>source: 170913-05</u>
9	FA10195 - MS1	0.255	31	1709614 - 14	0.273	<u>BS1/BSD1</u>
10	FA10195 - MSD1	0.270	32	<u>FA10195 - BLK4</u>	0.250	<u>spiked with 200µg</u>
11	1709613 - 05	0.252	33	<u>FA10195 - BLK5</u>	0.279	<u>of 1704421</u>
12	FA10195 - MS2	0.251	34			<u>BLK4 & 5 are</u>
13	FA10195 - MSB2	0.277	35			<u>Pre/Post blanks</u>
14	1709613 - 15	0.269	36			<u>for 1709614</u>
15	1709613 - 16	0.276	37			
16	1709613 - 17	0.270	38			
17	1709613 - 18	0.258	39			
18	1709613 - 19	0.260	40			
19	1709613 - 20	0.275	41			
20	1709614 - 03	0.263	42			
21	1709614 - 04	0.268	43			
22	<u>FA10195 - 05</u>	0.277	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J04018
Reviewer: <u>RL 10/5/17</u>	Dataset ID(s): THG26003-171004-1
Date: 10/4/2017	WO (s) #: VARIOUS
Batch #(s): F710195, F710188	

● Select the correct preparation method.

Analyte	Prep Method	Matrix	
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg0	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

RL
1709614-11, 12, 13, 14
E70195-0481, 451, 4501, 452, 4502

Analyst Initials: DM **Reviewer Initials:** RL 10/5/17

- | | | | | |
|---|---|--|-------------------------------------|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | | | | |
| (b) Check 5% of transcription from Instrument print-out and Excel file | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | | | | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 50 ml / aliquot = Excel dilution value | | | | |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J04018
Reviewer: 0 <i>AL 10/5/17</i>	Dataset ID(s): THG26003-171004-1
Date: 10/4/2017	WO (s) #: VARIOUS
Batch #(s): F710195, F710188	0

Analyst Initials DM **Reviewer Initials** AL 10/5/17

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: <u>SEQ-CCV2, CCV5, CCVB, CCVD FAILED.</u> | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J04018
Reviewer: 0 <i>R 10/5/17</i>	Dataset ID(s): THG26003-171004-1
Date: 10/4/2017	WO (s) #: VARIOUS
Batch #(s): F710195, F710188	0

Analyst Initials DM **Reviewer Initials** R 10/5/17

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Files located at: \\Cuprum\qen_admin\Quality Assurance\Training Master\DOCs | | | |
| 36. Date of analyst IDOC/CDOC: _____ 11/23/2016 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2016 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> |
| 38. Date of LOD: _____ 5/9/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> |
| 39. Date of LOQ: _____ 5/9/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709613

PO#

C012505850

October 7, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709613

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October 7, 2017

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Total Pages – 62



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OB-05_17ET002_091717_TOM_01_WB	1709613-01	Tissue	17-Sep-17 12:30	22-Sep-17 10:25
OB-05_17ET002_091717_TOM_02_WB	1709613-02	Tissue	17-Sep-17 12:30	22-Sep-17 10:25
OB-05_17ET003_091717_TOM_03_WB	1709613-03	Tissue	17-Sep-17 12:30	22-Sep-17 10:25
OB-05_17ET003_091717_TOM_04_WB	1709613-04	Tissue	17-Sep-17 12:30	22-Sep-17 10:25
OB-05_17ET009_091717_TOM_05_WB	1709613-05	Tissue	17-Sep-17 12:30	22-Sep-17 10:25
OB-05_17ET010_091717_TOM_06_WB	1709613-06	Tissue	17-Sep-17 12:30	22-Sep-17 10:25
OB-05_17ET011_091717_TOM_07_WB	1709613-07	Tissue	17-Sep-17 12:30	22-Sep-17 10:25
OB-05_17ET012_091717_TOM_08_WB	1709613-08	Tissue	17-Sep-17 12:30	22-Sep-17 10:25
OB-05_17ET012_091717_TOM_09_WB	1709613-09	Tissue	17-Sep-17 12:30	22-Sep-17 10:25
OB-05_17ET013_091717_TOM_10_WB	1709613-10	Tissue	17-Sep-17 12:30	22-Sep-17 10:25
OB-05_17ET013_091717_TOM_11_WB	1709613-11	Tissue	17-Sep-17 12:30	22-Sep-17 10:25
OB-05_17ET014_091717_TOM_12_WB	1709613-12	Tissue	17-Sep-17 12:30	22-Sep-17 10:25
OB-05_17ET 014_091717_TOM_13_WB	1709613-13	Tissue	17-Sep-17 12:30	22-Sep-17 10:25
OB-05_17ET014_091717_TOM_14_WB	1709613-14	Tissue	17-Sep-17 12:30	22-Sep-17 10:25
OB-05_17ET014_091717_TOM_15_WB	1709613-15	Tissue	17-Sep-17 12:30	22-Sep-17 10:25
OB-05_17ET002_091817_TOM_16_WB	1709613-16	Tissue	18-Sep-17 13:00	22-Sep-17 10:25
OB-05_17ET003_091817_TOM_17_WB	1709613-17	Tissue	18-Sep-17 13:00	22-Sep-17 10:25
OB-05_17ET003_091817_TOM_18_WB	1709613-18	Tissue	18-Sep-17 13:00	22-Sep-17 10:25
OB-05_17ET005_091817_TOM_19_WB	1709613-19	Tissue	18-Sep-17 13:00	22-Sep-17 10:25
OB-05_17ET008_091817_TOM_20_WB	1709613-20	Tissue	18-Sep-17 13:00	22-Sep-17 10:25

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:51

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM . The samples were received intact, on-ice within two sealed coolers at -27.1 and -21.6 degrees Celsius.

The COC also requested % lipids, but this was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches for total Mercury; F710188 and F710195. Sample 1709613-01 was used as the source QC in batch F710188, and sample 1709613-05 was used as the source QC in batch F710195. These were analyzed in sequence 7J04018.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
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and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

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Amy Goodall, Project Manager

Sample Receipt Checklist

Client: AMSC Foster Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/23/17 Labeled By: CSG

Project: _____

Received By: LM Label Verified By: BC

of Coolers Received: 2

Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>170404186</u> CF: <u>FC.1</u> °C	Date/time: <u>9/22/17 10:25</u> By: <u>LM</u>
Cooler 1: <u>-27.22</u> °C w/ CF: <u>-27.12</u> °C	Cooler 4: _____ °C w/ CF: _____ °C
Cooler 2: <u>-21.73</u> °C w/ CF: <u>-21.63</u> °C	Cooler 5: _____ °C w/ CF: _____ °C
Cooler 3: _____ °C w/ CF: _____ °C	Cooler 6: _____ °C w/ CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	Y	
Preservation type:	Y	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4846 Cooler 2: 7878 1037 1884

1709613



1709613



Environmental Analysis Request/Chain of Custody

Page 1 of 1

Client: Amco Foster Wheeler / 511 Congress St, Suite 200 Portland, ME 04101		Project Name#: JSDC Pencabot		PN # 3516193952.04A.035		Matrix		Analyses Requested		For Lab Use Only	
Project Manager: Rod Pendleton		P.O. #: 0012505850		Sampler: JB		Quote #:		Preservation Codes		S.F. #:	
Phone #:		State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>				SCR #:	
						Pack <input type="checkbox"/> Grab <input type="checkbox"/> Surface <input type="checkbox"/>				Preservation Codes	
						Water <input type="checkbox"/> H2O2 <input type="checkbox"/>				TIN (NO) <input type="checkbox"/> TE (NO) <input type="checkbox"/>	
						Other: Tissue <input type="checkbox"/>				SIL (NO) <input type="checkbox"/> B- (NO) <input type="checkbox"/>	
						Total # of Containers				Pb (NO) <input type="checkbox"/> Hg (NO) <input type="checkbox"/>	
						1/1g (Other) and 1/10g (2) (NO)				D (NO) <input type="checkbox"/>	
										Remarks	
										use volume for MS / MSD	

Sample Identification	Collection		Grab	Composite	Soil	Water	Other	Total # of Containers	1/1g (Other) and 1/10g (2) (NO)										
	Date	Time																	
1	08-05-17	09:02																	
2	08-05-17	09:02																	
3	08-05-17	09:03																	
4	08-05-17	09:03																	
5	08-05-17	09:09																	
6	08-05-17	09:10																	
7	08-05-17	09:11																	
8	08-05-17	09:12																	
9	08-05-17	09:17																	
10	08-05-17	09:17																	
11	08-05-17	09:17																	
12	08-05-17	09:17																	
13	08-05-17	09:17																	
14	08-05-17	09:17																	
15	08-05-17	09:17																	
16	08-05-17	09:17																	
17	08-05-17	09:17																	
18	08-05-17	09:17																	
19	08-05-17	09:17																	
20	08-05-17	09:17																	

Turnaround Time Requested (TAT) (please check):		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Relinquished by:		Date		Time		Received by:		Date		Time	
(Rush TAT is subject to laboratory approval and surcharges.)						9/2/2017		1630							
Notes:				Relinquished by:		Date		Time		Received by:		Date		Time	
				Relinquished by:		Date		Time		Received by:		Date		Time	
				Relinquished by:		Date		Time		Received by:		Date		Time	
Data Package Options (please check if required)		High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		Relinquished by Commercial Carrier:		Date		Time		Received by:		Date		Time	
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		If yes, format:		UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other <input type="checkbox"/>											
												Temperature upon receipt: _____ °C			

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Project Number: 3616166052.04A.055
Project Manager: Denise King

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OB-05_17ET002_091717_TOM_01_WB
1709613-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	268	0.437	3.90	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	
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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
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OB-05_17ET002_091717_TOM_02_WB
1709613-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	139	0.412	3.68	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project Manager: Denise King

Reported:
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OB-05_17ET003_091717_TOM_03_WB
1709613-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	70.7	0.435	3.89	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
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OB-05_17ET003_091717_TOM_04_WB
1709613-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	122	0.443	3.95	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
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OB-05_17ET009_091717_TOM_05_WB
1709613-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	379	1.78	15.9	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project Manager: Denise King

Reported:
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OB-05_17ET010_091717_TOM_06_WB
1709613-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	99.8	0.416	3.71	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
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OB-05_17ET011_091717_TOM_07_WB
1709613-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	90.7	0.432	3.86	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project Manager: Denise King

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OB-05_17ET012_091717_TOM_08_WB
1709613-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	230	0.442	3.95	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project Manager: Denise King

Reported:
07-Oct-17 14:51

OB-05_17ET012_091717_TOM_09_WB
1709613-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	118	0.427	3.81	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project Manager: Denise King

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OB-05_17ET013_091717_TOM_10_WB
1709613-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	227	0.434	3.87	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project Manager: Denise King

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OB-05_17ET013_091717_TOM_11_WB
1709613-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	124	0.407	3.63	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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**OB-05_17ET014_091717_TOM_12_WB
1709613-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	103	0.423	3.77	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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**OB-05_17ET 014_091717_TOM_13_WB
1709613-13**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	159	0.447	3.99	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Reported:
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OB-05_17ET014_091717_TOM_14_WB
1709613-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	126	0.425	3.79	ng/g	100	F710188	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Reported:
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OB-05_17ET014_091717_TOM_15_WB
1709613-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	315	1.67	14.9	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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OB-05_17ET002_091817_TOM_16_WB
1709613-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	71.9	1.62	14.5	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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OB-05_17ET003_091817_TOM_17_WB
1709613-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	173	1.66	14.8	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project Manager: Denise King

Reported:
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OB-05_17ET003_091817_TOM_18_WB
1709613-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	152	1.74	15.5	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:51

OB-05_17ET005_091817_TOM_19_WB
1709613-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	78.4	1.72	15.4	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Project Manager: Denise King

Reported:
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OB-05_17ET008_091817_TOM_20_WB
1709613-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	72.7	1.63	14.5	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 07-Oct-17 14:51
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J04018 - F710188											
Cal Standard (7J04018-CAL1) Prepared & Analyzed: 04-Oct-17											
Mercury	0.487	-		ng/L	0.50100		97.2				
Cal Standard (7J04018-CAL2) Prepared & Analyzed: 04-Oct-17											
Mercury	1.010	-		ng/L	1.0020		101				
Cal Standard (7J04018-CAL3) Prepared & Analyzed: 04-Oct-17											
Mercury	4.807	-		ng/L	5.0100		95.9				
Cal Standard (7J04018-CAL4) Prepared & Analyzed: 04-Oct-17											
Mercury	20.01	-		ng/L	20.040		99.8				
Cal Standard (7J04018-CAL5) Prepared & Analyzed: 04-Oct-17											
Mercury	42.16	-		ng/L	40.080		105				
Calibration Blank (7J04018-CCB1) Prepared & Analyzed: 04-Oct-17											
Mercury	0.335	-		ng/L							
Calibration Blank (7J04018-CCB3) Prepared & Analyzed: 04-Oct-17											
Mercury	0.360	-		ng/L							
Calibration Blank (7J04018-CCB4) Prepared & Analyzed: 04-Oct-17											
Mercury	0.271	-		ng/L							
Calibration Blank (7J04018-CCB6) Prepared & Analyzed: 04-Oct-17											
Mercury	0.433	-		ng/L							
Calibration Blank (7J04018-CCB7) Prepared & Analyzed: 04-Oct-17											
Mercury	0.342	-		ng/L							

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:51

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 7J04018 - F710188

Calibration Blank (7J04018-CCB8)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.340	-		ng/L							
Calibration Blank (7J04018-CCB9)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.398	-		ng/L							
Calibration Blank (7J04018-CCBA)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.382	-		ng/L							
Calibration Blank (7J04018-CCBB)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.489	-		ng/L							
Calibration Blank (7J04018-CCBC)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.426	-		ng/L							
Calibration Blank (7J04018-CCBD)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.305	-		ng/L							
Calibration Check (7J04018-CCV1)											
Prepared & Analyzed: 04-Oct-17											
Mercury	5.778	-		ng/L	5.0000		116	77-123			
Calibration Check (7J04018-CCV3)											
Prepared & Analyzed: 04-Oct-17											
Mercury	5.820	-		ng/L	5.0000		116	77-123			
Calibration Check (7J04018-CCV4)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.010	-		ng/L	5.0000		120	77-123			
Calibration Check (7J04018-CCV6)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.149	-		ng/L	5.0000		123	77-123			

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:51

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J04018 - F710188

Calibration Check (7J04018-CCV7)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.165	-		ng/L	5.0000		123	77-123			
Calibration Check (7J04018-CCV8)											
Prepared & Analyzed: 04-Oct-17											
Mercury	5.827	-		ng/L	5.0000		117	77-123			
Calibration Check (7J04018-CCV9)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.120	-		ng/L	5.0000		122	77-123			
Calibration Check (7J04018-CCVA)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.010	-		ng/L	5.0000		120	77-123			
Calibration Check (7J04018-CCVB)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.473	-		ng/L	5.0000		129	77-123			
Calibration Check (7J04018-CCVC)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.043	-		ng/L	5.0000		121	77-123			
Calibration Check (7J04018-CCVD)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.262	-		ng/L	5.0000		125	77-123			
Instrument Blank (7J04018-IBL1)											
Prepared & Analyzed: 04-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J04018-IBL2)											
Prepared & Analyzed: 04-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J04018-IBL3)											
Prepared & Analyzed: 04-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:51

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J04018 - F710188

Initial Cal Check (7J04018-ICV1)

Prepared & Analyzed: 04-Oct-17

Mercury	5.631	-		ng/L	5.0000		113	79-121			
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Batch 7J05013 - F710195

Cal Standard (7J05013-CAL1)

Prepared & Analyzed: 05-Oct-17

Mercury	0.554	-		ng/L	0.50100		111				
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Cal Standard (7J05013-CAL2)

Prepared & Analyzed: 05-Oct-17

Mercury	1.012	-		ng/L	1.0020		101				
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Cal Standard (7J05013-CAL3)

Prepared & Analyzed: 05-Oct-17

Mercury	4.823	-		ng/L	5.0100		96.3				
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Cal Standard (7J05013-CAL4)

Prepared & Analyzed: 05-Oct-17

Mercury	18.89	-		ng/L	20.040		94.2				
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Cal Standard (7J05013-CAL5)

Prepared & Analyzed: 05-Oct-17

Mercury	38.82	-		ng/L	40.080		96.8				
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Calibration Blank (7J05013-CCB1)

Prepared & Analyzed: 05-Oct-17

Mercury	0.166	-		ng/L							
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Calibration Blank (7J05013-CCB2)

Prepared & Analyzed: 05-Oct-17

Mercury	0.087	-		ng/L							
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Calibration Blank (7J05013-CCB3)

Prepared & Analyzed: 05-Oct-17

Mercury	0.105	-		ng/L							
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Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 07-Oct-17 14:51
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J05013 - F710195

Calibration Check (7J05013-CCV1) Prepared & Analyzed: 05-Oct-17

Mercury	5.021	-		ng/L	5.0000		100	77-123			
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Calibration Check (7J05013-CCV2) Prepared & Analyzed: 05-Oct-17

Mercury	4.974	-		ng/L	5.0000		99.5	77-123			
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Calibration Check (7J05013-CCV3) Prepared & Analyzed: 05-Oct-17

Mercury	4.747	-		ng/L	5.0000		94.9	77-123			
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Instrument Blank (7J05013-IBL1) Prepared & Analyzed: 05-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J05013-IBL2) Prepared & Analyzed: 05-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J05013-IBL3) Prepared & Analyzed: 05-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7J05013-ICV1) Prepared & Analyzed: 05-Oct-17

Mercury	4.960	-		ng/L	5.0000		99.2	79-121			
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Batch F710188 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710188-BLK1) Prepared: 02-Oct-17 Analyzed: 04-Oct-17

Mercury	0.687	0.090	0.800	ng/g							J
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Blank (F710188-BLK2) Prepared: 02-Oct-17 Analyzed: 04-Oct-17

Mercury	0.465	0.090	0.800	ng/g							J
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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:51

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710188 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710188-BLK3) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	0.397	0.090	0.800	ng/g							J
Blank (F710188-BLK4) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	ND	0.083	0.740	ng/g							F-03, U
Blank (F710188-BLK5) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	ND	0.081	0.723	ng/g							F-03, U
Blank (F710188-BLK6) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	ND	0.088	0.786	ng/g							F-03, U
Blank (F710188-BLK7) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	ND	0.078	0.692	ng/g							F-03, U
LCS (F710188-BS1) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	7.831	0.090	0.800	ng/g	8.0160		97.7	75-125			
LCS (F710188-BS2) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	381.2	3.55	31.7	ng/g	373.70		102	75-125			
LCS Dup (F710188-BSD1) Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	8.727	0.090	0.800	ng/g	8.0160		109	75-125	10.8	24	
Duplicate (F710188-DUP1) Source: 1709612-02 Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	160.8	0.447	4.00	ng/g		147.7			8.48	24	
Matrix Spike (F710188-MS1) Source: 1709612-02 Prepared: 02-Oct-17 Analyzed: 04-Oct-17											
Mercury	615.6	1.70	15.2	ng/g	380.08	147.7	123	71-125			

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 07-Oct-17 14:51
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710188 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike (F710188-MS2)		Source: 1709613-01		Prepared: 02-Oct-17 Analyzed: 04-Oct-17							
Mercury	693.5	1.68	15.0	ng/g	376.08	267.7	113	71-125			
Matrix Spike Dup (F710188-MSD1)		Source: 1709612-02		Prepared: 02-Oct-17 Analyzed: 04-Oct-17							
Mercury	605.1	1.71	15.3	ng/g	382.12	147.7	120	71-125	2.81	24	
Matrix Spike Dup (F710188-MSD2)		Source: 1709613-01		Prepared: 02-Oct-17 Analyzed: 04-Oct-17							
Mercury	693.6	1.69	15.1	ng/g	378.07	267.7	113	71-125	0.510	24	

Batch F710195 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710195-BLK2)				Prepared: 02-Oct-17 Analyzed: 04-Oct-17							
Mercury	0.655	0.090	0.800	ng/g							J
Blank (F710195-BLK3)				Prepared: 02-Oct-17 Analyzed: 04-Oct-17							
Mercury	0.439	0.090	0.800	ng/g							J
Blank (F710195-BLK4)				Prepared: 02-Oct-17 Analyzed: 04-Oct-17							
Mercury	ND	0.090	0.800	ng/g							F-03, U
Blank (F710195-BLK5)				Prepared: 02-Oct-17 Analyzed: 04-Oct-17							
Mercury	ND	0.080	0.717	ng/g							F-03, U
Blank (F710195-BLK6)				Prepared: 02-Oct-17 Analyzed: 04-Oct-17							
Mercury	0.365	0.090	0.800	ng/g							J
Blank (F710195-BLK7)				Prepared: 02-Oct-17 Analyzed: 05-Oct-17							
Mercury	0.299	0.090	0.800	ng/g							J

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:51

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710195 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710195-BLK8)					Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	0.105	0.090	0.800	ng/g							J
Blank (F710195-BLK9)					Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	ND	0.090	0.800	ng/g							U
LCS (F710195-BS1)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	8.800	0.090	0.800	ng/g	8.0160		110	75-125			
LCS (F710195-BS2)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	374.1	3.50	31.3	ng/g	373.70		100	75-125			
LCS Dup (F710195-BSD1)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	9.444	0.090	0.800	ng/g	8.0160		118	75-125	7.06	24	
Duplicate (F710195-DUP2)					Source: 1709612-05 Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	152.9	1.75	15.6	ng/g		199.1			26.2	24	QR-07
Matrix Spike (F710195-MS3)					Source: 1709612-05 Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	505.3	1.76	15.7	ng/g	392.16	199.1	78.1	71-125			
Matrix Spike (F710195-MS4)					Source: 1709613-05 Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	671.6	1.78	15.9	ng/g	398.41	378.8	73.5	71-125			
Matrix Spike Dup (F710195-MSD3)					Source: 1709612-05 Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	502.1	1.66	14.8	ng/g	370.37	199.1	81.8	71-125	4.65	24	
Matrix Spike Dup (F710195-MSD4)					Source: 1709613-05 Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	638.0	1.62	14.4	ng/g	361.01	378.8	71.8	71-125	2.33	24	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 14:51

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26003-171004-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 04, 2017

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7J04018

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	59.17 units	118.35	50.78 units	101.56	97.4 %Rec
SEQ-CAL2	1	1.00 ng/L	113.70 units	113.70	105.30 units	105.30	101.0 %Rec
SEQ-CAL3	1	5.00 ng/L	509.55 units	101.91	501.16 units	100.23	96.1 %Rec
SEQ-CAL4	1	20.00 ng/L	2094.42 units	104.72	2086.03 units	104.30	100.0 %Rec
SEQ-CAL5	1	40.00 ng/L	4404.16 units	110.10	4395.77 units	109.89	105.4 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 104.26 +/- 3.75 3.6% RSD 109.76

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	8.39 units	±1.57	0.08 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	6.452 ng/L	±1.892
BLK	2	3	6.080 ng/L	±1.880
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: RL 10/5/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	DM2	CAL	SEQ-IBL1	1	10/4/2017 10:24:36	76860-1.RAW	10:24:36 AM	8.96			0.6	0.005	0.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	10/4/2017 10:28:45	76861-1.RAW	10:28:45 AM	6.62			-1.8	-0.017	-0.017	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	10/4/2017 10:32:53	76862-1.RAW	10:32:53 AM	9.60			1.2	0.012	0.012	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	10/4/2017 10:37:02	76863-1.RAW	10:37:02 AM	59.17			50.8	0.487	0.487	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	10/4/2017 10:41:10	76864-1.RAW	10:41:10 AM	113.70			105.3	1.010	1.010	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	10/4/2017 10:45:19	76865-1.RAW	10:45:19 AM	509.55			501.2	4.807	4.807	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	10/4/2017 10:49:27	76866-1.RAW	10:49:27 AM	2094.42			2086.0	20.008	20.008	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	10/4/2017 10:53:36	76867-1.RAW	10:53:36 AM	4404.16			4395.8	42.162	42.162	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	10/4/2017 10:57:44	76868-1.RAW	10:57:44 AM	595.51			587.1	5.631	5.631	ng/L	
Hg2600-3	DM2	BLK	F710188-BLK1	20	10/4/2017 11:01:52	76869-1.RAW	11:01:52 AM	53.13	1		44.7	0.429	8.582	ng/L	
Hg2600-3	DM2	BLK	F710188-BLK2	20	10/4/2017 11:06:01	76870-1.RAW	11:06:01 AM	38.66	1		30.3	0.290	5.807	ng/L	
Hg2600-3	DM2	BLK	F710188-BLK3	20	10/4/2017 11:10:09	76871-1.RAW	11:10:09 AM	34.29	1		25.9	0.248	4.967	ng/L	
Hg2600-3	DM2	SAM	*F710188-BLK4	20	10/4/2017 11:14:18	76872-1.RAW	11:14:18 AM	28.91	1		20.5	-0.126	-2.516	ng/L	
Hg2600-3	DM2	SAM	*F710188-BLK5	20	10/4/2017 11:18:26	76873-1.RAW	11:18:26 AM	27.66	1		19.3	-0.138	-2.755	ng/L	
Hg2600-3	DM2	SAM	*F710188-BLK6	20	10/4/2017 11:22:35	76874-1.RAW	11:22:35 AM	22.31	1		13.9	-0.189	-3.783	ng/L	
Hg2600-3	DM2	SAM	*F710188-BLK7	20	10/4/2017 11:26:43	76875-1.RAW	11:26:43 AM	20.18	1		11.8	-0.210	-4.191	ng/L	
Hg2600-3	DM2	SAM	F710188-BS1	20	10/4/2017 11:30:52	76876-1.RAW	11:30:52 AM	552.30	1		543.9	4.894	97.887	ng/L	
Hg2600-3	DM2	SAM	F710188-BSD1	20	10/4/2017 11:35:00	76877-1.RAW	11:35:00 AM	610.70	1		602.3	5.454	109.089	ng/L	
Hg2600-3	DM2	SAM	F710188-BS2	400	10/4/2017 11:39:08	76878-1.RAW	11:39:08 AM	637.52	1		629.1	6.018	2407.271	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	10/4/2017 11:43:17	76879-1.RAW	11:43:17 AM	610.79			602.4	5.778	5.778	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	10/4/2017 11:47:25	76880-1.RAW	11:47:25 AM	43.35			35.0	0.335	0.335	ng/L	
Hg2600-3	DM2	SAM	1709612-01	100	10/4/2017 11:51:34	76881-1.RAW	11:51:34 AM	1413.03	1		1404.6	13.408	1340.809	ng/L	
Hg2600-3	DM2	SAM	1709612-02	100	10/4/2017 11:56:03	76882-1.RAW	11:56:03 AM	2007.40	1		1999.0	19.109	1910.904	ng/L	
Hg2600-3	DM2	SAM	1709612-03	100	10/4/2017 12:00:11	76883-1.RAW	12:00:11 PM	1783.69	1		1775.3	16.963	1696.336	ng/L	
Hg2600-3	DM2	SAM	1709612-04	100	10/4/2017 12:04:20	76884-1.RAW	12:04:20 PM	2040.13	1		2031.7	19.423	1942.297	ng/L	
Hg2600-3	DM2	SAM	1709612-06	100	10/4/2017 12:08:28	76885-1.RAW	12:08:28 PM	3167.79	1		3159.4	30.239	3023.898	ng/L	
Hg2600-3	DM2	SAM	1709612-07	100	10/4/2017 12:12:37	76886-1.RAW	12:12:37 PM	2333.40	1		2325.0	22.236	2223.590	ng/L	
Hg2600-3	DM2	SAM	1709612-08	100	10/4/2017 12:16:45	76887-1.RAW	12:16:45 PM	2327.52	1		2319.1	22.179	2217.949	ng/L	
Hg2600-3	DM2	SAM	1709613-01	100	10/4/2017 12:20:53	76888-1.RAW	12:20:53 PM	3593.03	1		3584.6	34.318	3431.768	ng/L	
Hg2600-3	DM2	SAM	1709613-02	100	10/4/2017 12:25:02	76889-1.RAW	12:25:02 PM	1986.28	1		1977.9	18.907	1890.652	ng/L	
Hg2600-3	DM2	SAM	1709613-03	100	10/4/2017 12:29:10	76890-1.RAW	12:29:10 PM	963.23	1		954.8	9.094	909.383	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	10/4/2017 12:33:19	76891-1.RAW	12:33:19 PM	670.18			661.8	6.348	6.348	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	10/4/2017 12:37:27	76892-1.RAW	12:37:27 PM	66.07			57.7	0.553	0.553	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	10/4/2017 12:41:36	76893-1.RAW	12:41:36 PM	615.16			606.8	5.820	5.820	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	10/4/2017 12:45:44	76894-1.RAW	12:45:44 PM	634.96			626.6	6.010	6.010	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	10/4/2017 12:49:53	76895-1.RAW	12:49:53 PM	45.96			37.6	0.360	0.360	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	10/4/2017 12:54:01	76896-1.RAW	12:54:01 PM	36.65			28.3	0.271	0.271	ng/L	
Hg2600-3	DM2	SAM	1709613-04	100	10/4/2017 12:58:09	76897-1.RAW	12:58:09 PM	1617.98	1		1609.6	15.374	1537.395	ng/L	
Hg2600-3	DM2	SAM	1709613-06	100	10/4/2017 13:02:18	76898-1.RAW	1:02:18 PM	1415.51	1		1407.1	13.432	1343.196	ng/L	
Hg2600-3	DM2	SAM	1709613-07	100	10/4/2017 13:06:26	76899-1.RAW	1:06:26 PM	1241.22	1		1232.8	11.760	1176.025	ng/L	
Hg2600-3	DM2	SAM	1709613-08	100	10/4/2017 13:10:35	76900-1.RAW	1:10:35 PM	3050.78	1		3042.4	29.117	2911.671	ng/L	
Hg2600-3	DM2	SAM	1709613-09	100	10/4/2017 13:14:43	76901-1.RAW	1:14:43 PM	1624.51	1		1616.1	15.437	1543.658	ng/L	
Hg2600-3	DM2	SAM	1709613-10	100	10/4/2017 13:18:52	76902-1.RAW	1:18:52 PM	3076.51	1		3068.1	29.364	2936.353	ng/L	
Hg2600-3	DM2	SAM	1709613-11	100	10/4/2017 13:23:00	76903-1.RAW	1:23:00 PM	1792.77	1		1784.4	17.050	1705.046	ng/L	
Hg2600-3	DM2	SAM	1709613-12	100	10/4/2017 13:27:09	76904-1.RAW	1:27:09 PM	1441.32	1		1432.9	13.679	1367.948	ng/L	
Hg2600-3	DM2	SAM	1709613-13	100	10/4/2017 13:31:17	76905-1.RAW	1:31:17 PM	2087.56	1		2079.2	19.878	1987.789	ng/L	
Hg2600-3	DM2	SAM	1709613-14	100	10/4/2017 13:35:25	76906-1.RAW	1:35:25 PM	1749.42	1		1741.0	16.635	1663.460	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	10/4/2017 13:39:34	76907-1.RAW	1:39:34 PM	692.94			684.5	6.566	6.566	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	10/4/2017 13:43:42	76908-1.RAW	1:43:42 PM	63.30			54.9	0.527	0.527	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	10/4/2017 13:47:51	76909-1.RAW	1:47:51 PM	649.51			641.1	6.149	6.149	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	10/4/2017 13:51:59	76910-1.RAW	1:51:59 PM	651.11			642.7	6.165	6.165	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	10/4/2017 13:56:08	76911-1.RAW	1:56:08 PM	53.51			45.1	0.433	0.433	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	10/4/2017 14:00:16	76912-1.RAW	2:00:16 PM	44.03			35.6	0.342	0.342	ng/L	
Hg2600-3	DM2	SAM	F710188-DUP1	100	10/4/2017 14:05:56	76913-1.RAW	2:05:56 PM	2113.42	1		2105.0	20.126	2012.593	ng/L	
Hg2600-3	DM2	SAM	F710188-MS1	400	10/4/2017 14:10:05	76914-1.RAW	2:10:05 PM	2120.80	1		2112.4	20.245	8098.061	ng/L	
Hg2600-3	DM2	SAM	F710188-MSD1	400	10/4/2017 14:14:13	76915-1.RAW	2:14:13 PM	2073.72	1		2065.3	19.794	7917.412	ng/L	
Hg2600-3	DM2	SAM	F710188-MS2	400	10/4/2017 14:18:22	76916-1.RAW	2:18:22 PM	2413.30	1		2404.9	23.051	9220.261	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	DM2	SAM	F710188-MSD2	400	10/4/2017 14:22:30	76917-1.RAW	2:22:30 PM	2400.91	1						
Hg2600-3	DM2	SAM	*F710195-BLK1	20	10/4/2017 14:26:39	76918-1.RAW	2:26:39 PM	79.10	2		2392.5	22.932	9172.731	ng/L	
Hg2600-3	DM2	BLK	F710195-BLK2	20	10/4/2017 14:30:47	76919-1.RAW	2:30:47 PM	51.06	2		70.7	0.374	7.483	ng/L	
Hg2600-3	DM2	BLK	F710195-BLK3	20	10/4/2017 14:34:55	76920-1.RAW	2:34:55 PM	37.02	2		42.7	0.409	8.184	ng/L	
Hg2600-3	DM2	SAM	*F710195-BLK4	20	10/4/2017 14:39:04	76921-1.RAW	2:39:04 PM	31.85	2		28.6	0.275	5.493	ng/L	
Hg2600-3	DM2	SAM	*F710195-BLK5	20	10/4/2017 14:43:12	76922-1.RAW	2:43:12 PM	36.83	2		23.5	-0.079	-1.580	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	10/4/2017 14:47:21	76923-1.RAW	2:47:21 PM	615.92			28.4	-0.031	-0.626	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	10/4/2017 14:51:29	76924-1.RAW	2:51:29 PM	43.88			607.5	5.827	5.827	ng/L	
Hg2600-3	DM2	BLK	F710195-BLK6	20	10/4/2017 14:55:38	76925-1.RAW	2:55:38 PM	32.18	2		35.5	0.340	0.340	ng/L	
Hg2600-3	DM2	SAM	F710195-BS1	20	10/4/2017 14:59:46	76926-1.RAW	2:59:46 PM	613.52	2		23.8	0.228	4.564	ng/L	
Hg2600-3	DM2	SAM	F710195-BS2	20	10/4/2017 15:03:54	76927-1.RAW	3:03:54 PM	655.4614877	2		605.1	5.500	110.001	ng/L	
Hg2600-3	DM2	SAM	1709612-05	400	10/4/2017 15:08:03	76928-1.RAW	3:08:03 PM	633.49	2		647.1	5.902	118.048	ng/L	
Hg2600-3	DM2	SAM	1709613-05	400	10/4/2017 15:12:11	76929-1.RAW	3:12:11 PM	674.12	2		625.1	5.980	2392.197	ng/L	
Hg2600-3	DM2	SAM	1709613-15	400	10/4/2017 15:16:20	76930-1.RAW	3:16:20 PM	1254.11	2		665.7	6.370	2548.058	ng/L	
Hg2600-3	DM2	SAM	1709613-16	400	10/4/2017 15:20:28	76931-1.RAW	3:20:28 PM	1115.47	2		1245.7	11.933	4773.265	ng/L	
Hg2600-3	DM2	SAM	1709613-17	400	10/4/2017 15:24:37	76932-1.RAW	3:24:37 PM	268.43	2		1107.1	10.603	4241.371	ng/L	
Hg2600-3	DM2	SAM	1709613-18	400	10/4/2017 15:28:45	76933-1.RAW	3:28:45 PM	619.07	2		260.0	2.479	991.598	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	10/4/2017 15:32:54	76934-1.RAW	3:32:54 PM	521.87	2		610.7	5.842	2336.860	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	10/4/2017 15:37:02	76935-1.RAW	3:37:02 PM	646.44			513.5	4.910	1963.955	ng/L	
Hg2600-3	DM2	SAM	1709613-19	400	10/4/2017 15:41:10	76936-1.RAW	3:41:10 PM	49.89			638.0	6.120	6.120	ng/L	
Hg2600-3	DM2	SAM	1709613-20	400	10/4/2017 15:45:41	76937-1.RAW	3:45:41 PM	275.56	2		41.5	0.398	0.398	ng/L	
Hg2600-3	DM2	SAM	1709614-03	400	10/4/2017 15:49:49	76938-1.RAW	3:49:49 PM	270.55	2		267.2	2.547	1018.940	ng/L	
Hg2600-3	DM2	SAM	1709614-04	400	10/4/2017 15:53:58	76939-1.RAW	3:53:58 PM	1343.71	2		262.2	2.499	999.737	ng/L	
Hg2600-3	DM2	SAM	1709614-05	400	10/4/2017 15:58:06	76940-1.RAW	3:58:06 PM	824.01	2		1335.3	12.793	5117.011	ng/L	
Hg2600-3	DM2	SAM	1709614-06	400	10/4/2017 16:02:15	76941-1.RAW	4:02:15 PM	695.92	2		815.6	7.808	3123.128	ng/L	
Hg2600-3	DM2	SAM	1709614-07	400	10/4/2017 16:06:23	76942-1.RAW	4:06:23 PM	237.18	2		687.5	6.579	2631.684	ng/L	
Hg2600-3	DM2	SAM	1709614-08	400	10/4/2017 16:10:32	76943-1.RAW	4:10:32 PM	1060.98	2		228.8	2.179	871.691	ng/L	
Hg2600-3	DM2	SAM	1709614-09	400	10/4/2017 16:14:40	76944-1.RAW	4:14:40 PM	1459.41	2		1052.6	10.081	4032.319	ng/L	
Hg2600-3	DM2	SAM	1709614-10	400	10/4/2017 16:18:48	76945-1.RAW	4:18:48 PM	289.94	2		1451.0	13.902	5560.908	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVA	1	10/4/2017 16:22:57	76946-1.RAW	4:22:57 PM	709.68	2		281.5	2.685	1074.117	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	10/4/2017 16:27:05	76947-1.RAW	4:27:05 PM	634.95			701.3	6.711	2684.499	ng/L	
Hg2600-3	DM2	SAM	1709614-11	400	10/4/2017 16:31:14	76948-1.RAW	4:31:14 PM	48.25			626.6	6.010	6.010	ng/L	
Hg2600-3	DM2	SAM	1709614-12	400	10/4/2017 16:35:49	76949-1.RAW	4:35:49 PM	337.92	2		39.9	0.382	0.382	ng/L	
Hg2600-3	DM2	SAM	1709614-13	400	10/4/2017 16:39:58	76950-1.RAW	4:39:58 PM	227.32	2		329.5	3.146	1258.203	ng/L	
Hg2600-3	DM2	SAM	1709614-14	400	10/4/2017 16:44:06	76951-1.RAW	4:44:06 PM	990.21	2		218.9	2.085	833.876	ng/L	
Hg2600-3	DM2	SAM	F710195-DUP1	400	10/4/2017 16:48:15	76952-1.RAW	4:48:15 PM	224.22	2		981.8	9.402	3760.771	ng/L	
Hg2600-3	DM2	SAM	F710195-MS1	400	10/4/2017 16:52:23	76953-1.RAW	4:52:23 PM	640.26	2		215.8	2.055	821.958	ng/L	
Hg2600-3	DM2	SAM	F710195-MSD1	400	10/4/2017 16:56:32	76954-1.RAW	4:56:32 PM	2123.75	2		631.9	6.045	2418.141	ng/L	
Hg2600-3	DM2	SAM	F710195-MS2	400	10/4/2017 17:00:40	76955-1.RAW	5:00:40 PM	2243.91	2		2115.4	20.274	8109.736	ng/L	
Hg2600-3	DM2	SAM	F710195-MSD2	400	10/4/2017 17:04:49	76956-1.RAW	5:04:49 PM	2644.84	2		2235.5	21.427	8570.770	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVB	1	10/4/2017 17:08:57	76957-1.RAW	5:08:57 PM	2898.40	2		2636.4	25.272	10108.957	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBB	1	10/4/2017 17:13:04	76958-1.RAW	5:13:04 PM	683.31			2890.0	27.705	11081.802	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVC	1	10/4/2017 17:17:11	76959-1.RAW	5:17:11 PM	59.38			674.9	6.473	6.473	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVD	1	10/4/2017 17:21:19	76960-1.RAW	5:21:19 PM	638.48			51.0	0.489	0.489	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBC	1	10/4/2017 17:25:27	76961-1.RAW	5:25:27 PM	661.22			630.1	6.043	6.043	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBD	1	10/4/2017 17:29:35	76962-1.RAW	5:29:35 PM	52.79			652.8	6.262	6.262	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBD	1	10/4/2017 17:33:44	76963-1.RAW	5:33:44 PM	40.20			44.4	0.426	0.426	ng/L	
											31.8	0.305	0.305	ng/L	

TotalMercury EPA1631
 Operat: DM
 Workst: THg2601
 Method: #####
 Descrip: THg26003-171004-1

Blanks: 8.3923
 CalibEqn: Conc = (Area-8.392
 Status: 104.26
 R: 0.9997
 R2: 0.9994

QC Warnings: 6/QC E
 Run Date: 10/4/2017
 Run Time: 16:31:40

Blank SD: 1.571514632
 Blank RSD%: 18.72565975
 CF SD: 3.753088289
 CF RSD%: 3.599794362

Sample/ID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (elf)	Flags	RunCount
Clean				0.00	4.93					76855-1.RAW	10:05:11	513.48	Clean	OK	1
CLEAN										76856-1.RAW	10:08:03	0.00	Clean	NP	1
WS				8.39	0.00					76857-1.RAW	10:12:11	6.11	Sample	OK	1
WS				8.39	0.00					76858-1.RAW	10:16:20	6.18	Sample	OK	1
WS				8.39	0.00					76859-1.RAW	10:20:28	5.45	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.09					76860-1.RAW	10:24:36	8.96	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.06					76861-1.RAW	10:28:45	6.62	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.09					76862-1.RAW	10:32:53	9.60	Sample	OK	1
SEQ-CAL1	A4		1	8.39	0.49			97.41		76863-1.RAW	10:37:02	59.17	Sample	OK	1
SEQ-CAL2	A5		1	8.39	1.01			101.00		76864-1.RAW	10:41:10	113.70	Sample	OK	1
SEQ-CAL3	A6		1	8.39	4.81			96.14		76865-1.RAW	10:45:19	509.55	Sample	OK	1
SEQ-CAL4	A7		1	8.39	20.01			100.04		76866-1.RAW	10:49:27	2094.42	Sample	OK	1
SEQ-CAL5	A8		1	8.39	42.16			105.41		76867-1.RAW	10:53:36	4404.16	Sample	FB	1
SEQ-ICV1	A9		1	8.39	5.63			112.63		76868-1.RAW	10:57:44	595.51	Sample	OK	1
F710188-BLK1	A10		20	8.39	8.58					76869-1.RAW	11:01:52	53.13	Sample	OK	1
F710188-BLK2	A11		20	8.39	5.81					76870-1.RAW	11:06:01	38.66	Sample	OK	1
F710188-BLK3	A12		20	8.39	4.97					76871-1.RAW	11:10:09	34.29	Sample	OK	1
*F710188-BLK4	B1		20	8.39	3.94					76872-1.RAW	11:14:18	28.91	Sample	OK	1
*F710188-BLK5	B2		20	8.39	3.70					76873-1.RAW	11:18:26	27.66	Sample	OK	1
*F710188-BLK6	B3		20	8.39	2.67					76874-1.RAW	11:22:35	22.31	Sample	OK	1
*F710188-BLK7	B4		20	8.39	2.26					76875-1.RAW	11:26:43	20.18	Sample	OK	1
F710188-BS1	B5		20	8.39	104.34					76876-1.RAW	11:30:52	552.30	Sample	OK	1
F710188-BSD1	B6		20	8.39	115.54					76877-1.RAW	11:35:00	610.70	Sample	OK	1
F710188-BS2	B7		400	8.39	2413.72					76878-1.RAW	11:39:08	637.52	Sample	OK	1
SEQ-CCV1	B8		1	8.39	5.78			115.56		76879-1.RAW	11:43:17	610.79	Sample	OK	1
SEQ-CCB1	B9		1	8.39	0.34			0.00		76880-1.RAW	11:47:25	43.35	Sample	OK	1
1709612-01	B10		100	8.39	1347.26					76881-1.RAW	11:51:34	1413.03	Sample	OK	1
1709612-02	B11		100	8.39	1917.36					76882-1.RAW	11:56:03	2007.40	Sample	OK	1
1709612-03	B12		100	8.39	1702.79					76883-1.RAW	12:00:11	1783.69	Sample	FB	1
1709612-04	C1		100	8.39	1948.75					76884-1.RAW	12:04:20	2040.13	Sample	OK	1
1709612-06	C2		100	8.39	3030.35					76885-1.RAW	12:08:28	3167.79	Sample	OK	1
1709612-07	C3		100	8.39	2230.04					76886-1.RAW	12:12:37	2333.40	Sample	FB	1
1709612-08	C4		100	8.39	2224.40					76887-1.RAW	12:16:45	2327.52	Sample	OK	1
1709613-01	C5		100	8.39	3438.22					76888-1.RAW	12:20:53	3593.03	Sample	FB	1
1709613-02	C6		100	8.39	1897.10					76889-1.RAW	12:25:02	1986.28	Sample	OK	1
1709613-03	C7		100	8.39	915.84					76890-1.RAW	12:29:10	963.23	Sample	OK	1
SEQ-CCV2	C8		1	8.39	6.35			126.95		76891-1.RAW	12:33:19	670.18	Sample	OK	1
SEQ-CCB2	C9		1	8.39	0.55			0.00		76892-1.RAW	12:37:27	66.07	Sample	OK	1
SEQ-CCV3	A1		1	8.39	5.82			116.40		76893-1.RAW	12:41:36	615.16	Sample	OK	1
SEQ-CCV4	A2		1	8.39	6.01			120.20		76894-1.RAW	12:45:44	634.96	Sample	OK	1
SEQ-CCB3	A3		1	8.39	0.36			0.00		76895-1.RAW	12:49:53	45.96	Sample	OK	1
SEQ-CCB4	A4		1	8.39	0.27			0.00		76896-1.RAW	12:54:01	36.65	Sample	OK	1
1709613-04	C10		100	8.39	1543.85					76897-1.RAW	12:58:09	1617.98	Sample	OK	1
1709613-06	C11		100	8.39	1349.65					76898-1.RAW	13:02:18	1415.51	Sample	FB	1
1709613-07	C12		100	8.39	1182.48					76899-1.RAW	13:06:26	1241.22	Sample	OK	1
1709613-08	D1		100	8.39	2918.12					76900-1.RAW	13:10:35	3050.78	Sample	FB	1
1709613-09	D2		100	8.39	1550.11					76901-1.RAW	13:14:43	1624.51	Sample	OK	1
1709613-10	D3		100	8.39	2942.81					76902-1.RAW	13:18:52	3076.51	Sample	OK	1
1709613-11	D4		100	8.39	1711.50					76903-1.RAW	13:23:00	1792.77	Sample	OK	1
1709613-12	D5		100	8.39	1374.40					76904-1.RAW	13:27:09	1441.32	Sample	OK	1
1709613-13	D6		100	8.39	1994.24					76905-1.RAW	13:31:17	2087.56	Sample	OK	1
1709613-14	D7		100	8.39	1669.91					76906-1.RAW	13:35:25	1749.42	Sample	FB	1
SEQ-CCV5	D8		1	8.39	6.57			131.32		76907-1.RAW	13:39:34	692.94	Sample	OK	1
SEQ-CCB5	D9		1	8.39	0.53			0.00		76908-1.RAW	13:43:42	63.30	Sample	OK	1
SEQ-CCV6	C1		1	8.39	6.15			122.99		76909-1.RAW	13:47:51	649.51	Sample	OK	1
SEQ-CCV7	C2		1	8.39	6.16			123.29		76910-1.RAW	13:51:59	651.11	Sample	OK	1
SEQ-CCB6	C3		1	8.39	0.43			0.00		76911-1.RAW	13:56:08	53.51	Sample	OK	1
SEQ-CCB7	C4		1	8.39	0.34			0.00		76912-1.RAW	14:00:16	44.03	Sample	OK	1
F710188-DUP1	D10		100	8.39	2019.05					76913-1.RAW	14:05:56	2113.42	Sample	FB	1
F710188-MS1	D11		400	8.39	8104.51			401.20		76914-1.RAW	14:10:05	2120.80	Sample	FB	1
F710188-MSD1	D12		400	8.39	7923.86					76915-1.RAW	14:14:13	2073.72	Sample	OK	1
F710188-MS2	A1		400	8.39	9226.71			116.41		76916-1.RAW	14:18:22	2413.30	Sample	FB	1

ANALYSIS SEQUENCE

7J04018

Instrument: Hg2600-3 ✓

Calibration ID: UNASSIGNED

Analyzed: 10/4/2017 ✓

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J04018-IBL1 ✓	QC	1			
7J04018-IBL2 ✓	QC	2			
7J04018-IBL3 ✓	QC	3			
7J04018-CAL1 ✓	QC	4	1704505 ✓		
7J04018-CAL2 ✓	QC	5	1704506 ✓		
7J04018-CAL3 ✓	QC	6	1704507 ✓		
7J04018-CAL4 ✓	QC	7	1704508 ✓		
7J04018-CAL5 ✓	QC	8	1704509 ✓		
7J04018-ICV1 ✓	QC	9	1705628 ✓		
F710188-BLK1 ✓	QC	10			
F710188-BLK2 ✓	QC	11			
F710188-BLK3 ✓	QC	12			
F710188-BLK4 ✓	QC	13			
F710188-BLK5 ✓	QC	14			
F710188-BLK6 ✓	QC	15			
F710188-BLK7 ✓	QC	16			
F710188-BS1 ✓	QC	17			
F710188-BSD1 ✓	QC	18			
F710188-BS2 ✓	QC	19			
7J04018-CCV1 ✓	QC	20	1705628 ✓		
7J04018-CCB1 ✓	QC	21			
1709612-01 ✓	Hg-CVAFS-T-7030	22			
1709612-02 ✓	Hg-CVAFS-T-7030	23			
1709612-03 ✓	Hg-CVAFS-T-7030	24			
1709612-04 ✓	Hg-CVAFS-T-7030	25			
1709612-06 ✓	Hg-CVAFS-T-7030	26			
1709612-07 ✓	Hg-CVAFS-T-7030	27			
1709612-08 ✓	Hg-CVAFS-T-7030	28			
1709613-01 ✓	Hg-CVAFS-T-7030	29			
1709613-02 ✓	Hg-CVAFS-T-7030	30			
1709613-03 ✓	Hg-CVAFS-T-7030	31			
7J04018-CCV2 ✓	QC	32	1705628 ✓		
7J04018-CCB2 ✓	QC	33			
7J04018-CCV3 ✓	QC	34	1705628 ✓		
7J04018-CCV4 ✓	QC	35	1705628 ✓		

Due Date: 10/20/2017

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ANALYSIS SEQUENCE

7J04018

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/4/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J04018-CCB3 /	QC	36			
7J04018-CCB4 /	QC	37			
1709613-04 /	Hg-CVAFS-T-7030	38			
1709613-06 /	Hg-CVAFS-T-7030	39			
1709613-07 /	Hg-CVAFS-T-7030	40			
1709613-08 /	Hg-CVAFS-T-7030	41			
1709613-09 /	Hg-CVAFS-T-7030	42			
1709613-10 /	Hg-CVAFS-T-7030	43			
1709613-11 /	Hg-CVAFS-T-7030	44			
1709613-12 /	Hg-CVAFS-T-7030	45			
1709613-13 /	Hg-CVAFS-T-7030	46			
1709613-14 /	Hg-CVAFS-T-7030	47			
7J04018-CCV5 /	QC	48	1705628	/	
7J04018-CCB5 /	QC	49			
7J04018-CCV6 /	QC	50	1705628	/	
7J04018-CCV7 /	QC	51	1705628	/	
7J04018-CCB6	QC	52			
7J04018-CCB7 /	QC	53			
F710188-DUP1 /	QC	54			
F710188-MS1 /	QC	55			
F710188-MSD1 /	QC	56			
F710188-MS2 /	QC	57			
F710188-MSD2 /	QC	58			
F710195-BLK1 /	QC	59			
F710195-BLK2 /	QC	60			
F710195-BLK3 /	QC	61			
F710195-BLK4 /	QC	62			
F710195-BLK5 /	QC	63			
7J04018-CCV8 /	QC	64	1705628	/	
7J04018-CCB8 /	QC	65			
F710195-BLK6 /	QC	66			
F710195-BS1 /	QC	67			
F710195-BSD1 /	QC	68			
F710195-BS2 /	QC	69			
1709612-05 /	Hg-CVAFS-T-7030	70			

Due Date: 10/20/2017

ANALYSIS SEQUENCE

7J04018

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/4/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709613-05 ✓	Hg-CVAFS-T-7030	71			
1709613-15 ✓	Hg-CVAFS-T-7030	72			
1709613-16 ✓	Hg-CVAFS-T-7030	73			
1709613-17 ✓	Hg-CVAFS-T-7030	74			
1709613-18 ✓	Hg-CVAFS-T-7030	75			
7J04018-CCV9 ✓	QC	76	1705628 ✓		
7J04018-CCB9 ✓	QC	77			
1709613-19 ✓	Hg-CVAFS-T-7030	78			
1709613-20 ✓	Hg-CVAFS-T-7030	79			
1709614-03 ✓	Hg-CVAFS-T-7030	80			
1709614-04 ✓	Hg-CVAFS-T-7030	81			
1709614-05 ✓	Hg-CVAFS-T-7030	82			
1709614-06 ✓	Hg-CVAFS-T-7030	83			
1709614-07 ✓	Hg-CVAFS-T-7030	84			
1709614-08 ✓	Hg-CVAFS-T-7030	85			
1709614-09 ✓	Hg-CVAFS-T-7030	86			
1709614-10 ✓	Hg-CVAFS-T-7030	87			
7J04018-CCVA ✓	QC	88	1705628 ✓		
7J04018-CCBA ✓	QC	89			
1709614-11 ✓	Hg-CVAFS-T-7030	90			
1709614-12 ✓	Hg-CVAFS-T-7030	91			
1709614-13 ✓	Hg-CVAFS-T-7030	92			
1709614-14 ✓	Hg-CVAFS-T-7030	93			
F710195-DUP1 ✓	QC	94			
F710195-MS1 ✓	QC	95			
F710195-MSD1 ✓	QC	96			
F710195-MS2 ✓	QC	97			
F710195-MSD2 ✓	QC	98			
7J04018-CCVB ✓	QC	99	1705628 ✓		
7J04018-CCBB ✓	QC	100			
7J04018-CCVC ✓	QC	101	1705628 ✓		
7J04018-CCVD ✓	QC	102	1705628 ✓		
7J04018-CCBC ✓	QC	103			
7J04018-CCBD ✓	QC	104			

Due Date: 10/20/2017

ANALYSIS SEQUENCE

7J04018

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/4/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Don Moore 10/4/17
Samples Loaded By Date

Don Moore 10/4/17
Data Processed By Date

PREPARATION BENCH SHEET

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710188-BLK1	Blank	0.25	20					
F710188-BLK2	Blank	0.25	20					
F710188-BLK3	Blank	0.25	20					
F710188-BLK4	Blank	0.2703	20					Pre-homogenization Blank for 1709612
F710188-BLK5	Blank	0.2768	20					Post-homogenization Blank for 1709612
F710188-BLK6	Blank	0.2545	20					Pre-homogenization Blank for 1709613
F710188-BLK7	Blank	0.2889	20					Post-homogenization Blank for 1709613
F710188-BS1	LCS	0.25	20	1704421	20			
F710188-BS2	LCS	0.1263	20	1705412	126.3			
F710188-BSD1	LCS Dup	0.25	20	1704421	20			
F710188-DUP1	Duplicate [1709612-02]	0.2503	20					
F710188-MS1	Matrix Spike [1709612-02]	0.2631	20	1705554	100			
F710188-MS2	Matrix Spike [1709613-01]	0.2659	20	1705554	100			
F710188-MSD1	Matrix Spike Dup [1709612-02]	0.2617	20	1705554	100			
F710188-MSD2	Matrix Spike Dup [1709613-01]	0.2645	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705823	5% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00

PREPARATION BENCH SHEET

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709612-01	BO-04_17ET008_091717_TOM_01_WB	0.2569	20	-	-	-		
1709612-02	BO-04_17ET010_091717_TOM_02_WB	0.2587	20	QC	-	-	MS/MSD	
1709612-03	BO-04_17ET014_091717_TOM_03_WB	0.2763	20	-	-	-		
1709612-04	BO-04_17ET025_092017_TOM_04_WB	0.2548	20	-	-	-		
1709612-06	BO-04_17ET030_092017_TOM_06_WB	0.27	20	-	-	-		
1709612-07	BO-04_17ET035_092017_TOM_07_WB	0.2573	20	-	-	-		
1709612-08	BO-04_17ET041_092017_TOM_08_WB	0.2735	20	-	-	-		
1709613-01	OB-05_17ET002_091717_TOM_01_WB	0.2564	20	QC	-	-	MS/MSD	
1709613-02	OB-05_17ET002_091717_TOM_02_WB	0.2716	20	-	-	-		
1709613-03	OB-05_17ET003_091717_TOM_03_WB	0.2574	20	-	-	-		
1709613-04	OB-05_17ET003_091717_TOM_04_WB	0.2529	20	-	-	-		
1709613-06	OB-05_17ET010_091717_TOM_06_WB	0.2692	20	-	-	-		
1709613-07	OB-05_17ET011_091717_TOM_07_WB	0.2592	20	-	-	-		
1709613-08	OB-05_17ET012_091717_TOM_08_WB	0.2532	20	-	-	-		
1709613-09	OB-05_17ET012_091717_TOM_09_WB	0.2626	20	-	-	-		
1709613-10	OB-05_17ET013_091717_TOM_10_WB	0.2582	20	-	-	-	Sample contains enough volume for QC	
1709613-11	OB-05_17ET013_091717_TOM_11_WB	0.2752	20	-	-	-		
1709613-12	OB-05_17ET014_091717_TOM_12_WB	0.265	20	-	-	-		
1709613-13	OB-05_17ET 014_091717_TOM_13_WB	0.2506	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710188

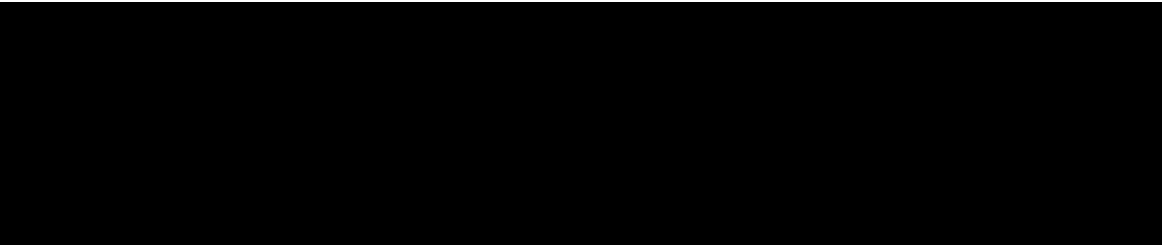
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709613-14	OB-05_17ET014_091717_TOM_14_WB	0.2636	20	-	-	-		
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PREPARATION BENCH SHEET

2000-3
10/4/17 DM

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710188-BLK1	Blank	0.25	20					20X
F710188-BLK2	Blank	0.25	20					20X
F710188-BLK3	Blank	0.25	20					20X
F710188-BLK4	Blank	0.2703	20					Pre-homogenization Blank for 1709612 20X
F710188-BLK5	Blank	0.2768	20					Post-homogenization Blank for 1709612 20X
F710188-BLK6	Blank	0.2545	20					Pre-homogenization Blank for 1709613 20X
F710188-BLK7	Blank	0.2889	20					Post-homogenization Blank for 1709613 20X
F710188-BS1	LCS	0.25	20	1704421	20			20X
F710188-BS2	LCS	0.1263	20	1705412	126.3			400X
F710188-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710188-DUP1	Duplicate [1709612-02]	0.2503	20					100X
F710188-MS1	Matrix Spike [1709612-02]	0.2631	20	1705554	100			400X
F710188-MS2	Matrix Spike [1709613-01]	0.2659	20	1705554	100			400X
F710188-MSD1	Matrix Spike Dup [1709612-02]	0.2617	20	1705554	100			400X
F710188-MSD2	Matrix Spike Dup [1709613-01]	0.2645	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1705412	DORM-4	06-Jan-20 00:00	1705823	5% BrCl	22-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00

20X = 2.5mL
400X = 125µl
100X = 500µl

1705779
1705411
1705610
1703182

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-3
10/4/17 DM

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709612-01	BO-04_17ET008_091717_TOM_01_WB	0.2569	20	-	-	-		100X ✓
1709612-02	BO-04_17ET010_091717_TOM_02_WB	0.2587	20	QC	-	-	MS/MSD	100X ✓
1709612-03	BO-04_17ET014_091717_TOM_03_WB	0.2763	20	-	-	-		100X ✓
1709612-04	BO-04_17ET025_092017_TOM_04_WB	0.2548	20	-	-	-		100X ✓
1709612-06	BO-04_17ET030_092017_TOM_06_WB	0.27	20	-	-	-		100X ✓
1709612-07	BO-04_17ET035_092017_TOM_07_WB	0.2573	20	-	-	-		100X ✓
1709612-08	BO-04_17ET041_092017_TOM_08_WB	0.2735	20	-	-	-		100X ✓
1709613-01	OB-05_17ET002_091717_TOM_01_WB	0.2564	20	QC	-	-	MS/MSD	100X ✓
1709613-02	OB-05_17ET002_091717_TOM_02_WB	0.2716	20	-	-	-		100X ✓
1709613-03	OB-05_17ET003_091717_TOM_03_WB	0.2574	20	-	-	-		100X ✓
1709613-04	OB-05_17ET003_091717_TOM_04_WB	0.2529	20	-	-	-		100X ✓
1709613-06	OB-05_17ET010_091717_TOM_06_WB	0.2692	20	-	-	-		100X ✓
1709613-07	OB-05_17ET011_091717_TOM_07_WB	0.2592	20	-	-	-		100X ✓
1709613-08	OB-05_17ET012_091717_TOM_08_WB	0.2532	20	-	-	-		100X ✓
1709613-09	OB-05_17ET012_091717_TOM_09_WB	0.2626	20	-	-	-		100X ✓
1709613-10	OB-05_17ET013_091717_TOM_10_WB	0.2582	20	-	-	-	Sample contains enough volume for QC	100X ✓
1709613-11	OB-05_17ET013_091717_TOM_11_WB	0.2752	20	-	-	-		100X ✓
1709613-12	OB-05_17ET014_091717_TOM_12_WB	0.265	20	-	-	-		100X ✓
1709613-13	OB-05_17ET 014_091717_TOM_13_WB	0.2506	20	-	-	-		100X ✓

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2100-3
10/4/17 DM

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709613-14	OB-05_17ET014_091717_TOM_14_WB	0.2636	20	-	-	-		100% ✓
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Technician: CWF Batch#: F710188 Date: 10/2/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance #: 19 Calibrated? Yes No Therm. #: 14949 Calibrated? Yes No

*Time in: 16:30 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C

Time out: 18:30 Actual Temp. (raw): 84.0 °C w/ CF: 84.1 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705823) Spike vol.: 100 µL (LIMS ID: 1705554)

Spike Witness: R 10-2-17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: MUM619 Calibration Date: 9/26/17

HNO₃ LIMS ID: N/A

Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1705859

Dispenser #: 0202749 Calibrated? Yes No

Other Acid LIMS ID: N/A

Dispenser #: 15406623

Glass Vial # 00068647 Boiling Chip lot # 1704424 *Hotblock Position: LS

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F710188 - Blk1	0.2554	23	1709613 -- 06	0.2692	BS2 = DO RM-4
2	F710188 - Blk2	0.2689	24	1709613 - 07	0.2592	LIMS: 1705412
3	F710188 - Blk3	0.2706	25	1709613 - 08	0.2737 0.2532	
4	F710188 - BS1	0.2766	26	1709613 - 09	0.2626	Comments
5	F710188 - BSD1	0.2666	27	1709613 - 10	0.2582	DUP1/MS1/MSD1
6	F710188 - BS2	0.1263	28	1709613 - 11	0.2752	source: 1709612-02
7	1709612 - 01	0.2569	29	1709613 - 12	0.2650	MS2/MSD2
8	1709612 - 02	0.2587	30	1709613 - 13	0.2506	source: 1709613-01
9	F710188 - DUP1	0.2503	31	1709613 - 14	0.2636	Blk4 + 5 are
10	F710188 - MS1	0.2631	32	F710188 - Blk4	0.2703	Pre/Post blanks for
11	F710188 - MSD1	0.2617	33	1710188 - Blk5	0.2768	1709612 respectively
12	1709612 - 03	0.2763	34	1710188 - Blk6	0.2545	Blk6 + 7 are
13	1709612 - 04	0.2548	35	1710188 - Blk7	0.2889	Pre/Post blanks for
14	1709612 - 06	0.2700	36			1709613 respectively
15	1709612 - 07	0.2573	37			BS1/BSD1 spiked
16	1709612 - 08	0.2735	38			with 20µL of
17	1709613 - 01	0.2564	39			1704421
18	F710188 - MS2	0.2659	40			
19	F710188 - MSD2	0.2645	41			
20	1709613 - 02	0.2716	42			
21	1709613 - 03	0.2574	43			
22	1709613 - 04	0.2529	44			

CWF
10/3/17

PREPARATION BENCH SHEET

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710195-BLK1	Blank	0.25	20					
F710195-BLK2	Blank	0.25	20					
F710195-BLK3	Blank	0.25	20					
F710195-BLK4	Blank	0.25	20					Pre-homogenization Blank for 1709614
F710195-BLK5	Blank	0.279	20					Post-homogenization Blank for 1709614
F710195-BLK6	Blank	0.25	20					RR of BLK1
F710195-BS1	LCS	0.25	20	1704421	20			
F710195-BS2	LCS	0.1279	20	1705412	127.9			
F710195-BSD1	LCS Dup	0.25	20	1704421	20			
F710195-DUP1	Duplicate [1709612-05]	0.256	20					
F710195-MS1	Matrix Spike [1709612-05] ✓	0.255	20	1705554	100			
F710195-MS2	Matrix Spike [1709613-05] ✓	0.251	20	1705554	100			
F710195-MSD1	Matrix Spike Dup [1709612-05] ✓	0.27	20	1705554	100			
F710195-MSD2	Matrix Spike Dup [1709613-05] ✓	0.277	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>
1704421	THg 100ng/mL Primary Spiking Standard
1705412	DORM-4
1705554	THg 1,000ng/mL Secondary Spiking Standard

<u>Expiration:</u>
21-Oct-17 00:00
06-Jan-20 00:00
18-Mar-18 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705610	THg Washstation (0.5% BrCl)	
1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
1705779	3% SnCl ₂ THg reductant	13-Mar-18 00:00
1705823	5% BrCl	22-Jan-18 00:00
1705859	70/30 Digestion Acid	28-Mar-18 00:00

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709612-05	BO-04_17ET026_092017_TOM_05_WB	0.256	20	-	-	-	Sample contains enough volume for QC	
1709613-05	OB-05_17ET009_091717_TOM_05_WB	0.252	20	-	-	-	Sample contains enough volume for QC	
1709613-15	OB-05_17ET014_091717_TOM_15_WB	0.269	20	-	-	-		
1709613-16	OB-05_17ET002_091817_TOM_16_WB	0.276	20	-	-	-		
1709613-17	OB-05_17ET003_091817_TOM_17_WB	0.27	20	-	-	-		
1709613-18	OB-05_17ET003_091817_TOM_18_WB	0.258	20	-	-	-		
1709613-19	OB-05_17ET005_091817_TOM_19_WB	0.26	20	-	-	-		
1709613-20	OB-05_17ET008_091817_TOM_20_WB	0.275	20	-	-	-		
1709614-03	OB-01_17ET001_091617_TOM_03_WB	0.263	20	-	-	-		
1709614-04	OB-01_17ET001_091617_TOM_04_WB	0.268	20	-	-	-		
1709614-05	OB-01_17ET001_091617_TOM_05_WB	0.277	20	-	-	-		
1709614-06	OB-01_17ET001_091617_TOM_06_WB	0.264	20	-	-	-		
1709614-07	OB-01_17ET001_091617_TOM_07_WB	0.262	20	-	-	-		
1709614-08	OB-01_17ET001_091617_TOM_08_WB	0.269	20	-	-	-		
1709614-09	OB-01_17ET001_091617_TOM_09_WB	0.273	20	-	-	-		
1709614-10	OB-01_17ET002_091617_TOM_10_WB	0.262	20	-	-	-		
1709614-11	OB-01_17ET002_091617_TOM_11_WB	0.277	20	-	-	-		
1709614-12	OB-01_17ET002_091617_TOM_12_WB	0.265	20	-	-	-		
1709614-13	OB-01_17ET003_091617_TOM_13_WB	0.27	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709614-14	OB-01_17ET004_091617_TOM_14_WB	0.273	20	-	-	-		
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PREPARATION BENCH SHEET

2600-3
10/4/17 DM

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710195-BLK1	Blank	0.25	20					20x -
F710195-BLK2	Blank	0.25	20					20x -
F710195-BLK3	Blank	0.25	20					20x -
F710195-BLK4	Blank	0.25	20					Pre-homogenization Blank for 1709614 20x
F710195-BLK5	Blank	0.279	20					Post-homogenization Blank for 1709614 20x
F710195-BS1	LCS	0.25	20	1704421	20			20x -
F710195-BS2	LCS	0.1279	20	1705412	127.9			400x -
F710195-BSD1	LCS Dup	0.25	20	1704421	20			20x -
F710195-DUP1	Duplicate 1709612-05	0.256	20					400x -
F710195-MS1	Matrix Spike 1709612-05	0.255	20	1705554	100			400x -
F710195-MS2	Matrix Spike 1709613-05	0.251	20	1705554	100			400x -
F710195-MSD1	Matrix Spike Dup 1709612-05	0.27	20	1705554	100			400x -
F710195-MSD2	Matrix Spike Dup 1709613-05	0.277	20	1705554	100			400x -

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705823	5% BrCl	22-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00

BLK 6 re-run of BLK 1

~~MS1, MSD1 - re-run of MS2, MSD2~~
1/5 DM 10/4

20x = 2.5mL
400x = 125 µl

1705610
1705611
1703182
1705779

Due Date: 10/20/2017

PREPARATION BENCH SHEET

200.3

10/4/17 DM

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709612-05	BO-04_17ET026_092017_TOM_05_WB	0.256	20	-	-	-	Sample contains enough volume for QC	400x ✓
1709613-05	OB-05_17ET009_091717_TOM_05_WB	0.252	20	-	-	-	Sample contains enough volume for QC	400x ✓
1709613-15	OB-05_17ET014_091717_TOM_15_WB	0.269	20	-	-	-		400x ✓
1709613-16	OB-05_17ET002_091817_TOM_16_WB	0.276	20	-	-	-		400x ✓
1709613-17	OB-05_17ET003_091817_TOM_17_WB	0.27	20	-	-	-		400x ✓
1709613-18	OB-05_17ET003_091817_TOM_18_WB	0.258	20	-	-	-		400x ✓
1709613-19	OB-05_17ET005_091817_TOM_19_WB	0.26	20	-	-	-		400x ✓
1709613-20	OB-05_17ET008_091817_TOM_20_WB	0.275	20	-	-	-		400x ✓
1709614-03	OB-01_17ET001_091617_TOM_03_WB	0.263	20	-	-	-		400x ✓
1709614-04	OB-01_17ET001_091617_TOM_04_WB	0.268	20	-	-	-		400x ✓
1709614-05	OB-01_17ET001_091617_TOM_05_WB	0.277	20	-	-	-		400x ✓
1709614-06	OB-01_17ET001_091617_TOM_06_WB	0.264	20	-	-	-		400x ✓
1709614-07	OB-01_17ET001_091617_TOM_07_WB	0.262	20	-	-	-		400x ✓
1709614-08	OB-01_17ET001_091617_TOM_08_WB	0.269	20	-	-	-		400x ✓
1709614-09	OB-01_17ET001_091617_TOM_09_WB	0.273	20	-	-	-		400x ✓
1709614-10	OB-01_17ET002_091617_TOM_10_WB	0.262	20	-	-	-		400x ✓
1709614-11	OB-01_17ET002_091617_TOM_11_WB	0.277	20	-	-	-		400x ✓
1709614-12	OB-01_17ET002_091617_TOM_12_WB	0.265	20	-	-	-		400x ✓
1709614-13	OB-01_17ET003_091617_TOM_13_WB	0.27	20	-	-	-		400x ✓

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-3
10/4/17 DM

F710195

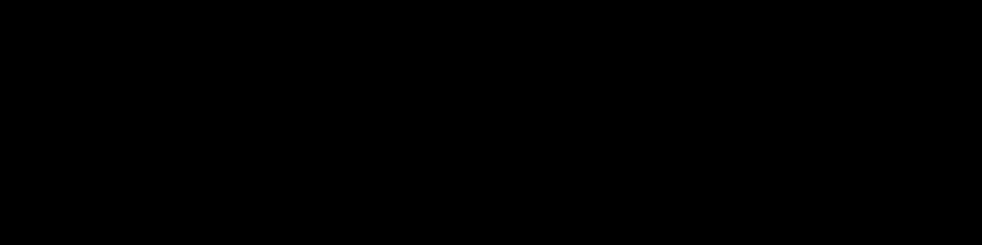
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709614-14	OB-01_17ET004_091617_TOM_14_WB	0.273	20	-	-	-		400X
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Technician: CWF Batch#: FA10195 Date: 10/2/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance #: 102149 6.19 Calibrated? Yes No Therm. #: 14545 Calibrated? Yes No

*Time in: 16:30 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C

Time out: 18:30 Actual Temp. (raw): 84.0 °C w/ CF: 84.1 °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705823) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: A 10-2-17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MUM619 Calibration Date: 9/26/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705859 Dispenser #: 02K2749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 1506623
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: LS

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> BS2 <input type="checkbox"/> NA
1	F710195 - BLK1	0.268	23	1709614 - 06	0.264	BS2 <input type="checkbox"/> NA <u>CWF 10/2/17</u>
2	F710195 - BLK2	0.251	24	1709614 - 07	0.262	<u>BS/BSD = DORM-4</u> <u>LIMS: 1705412</u>
3	F710195 - BLK3	0.256	25	1709614 - 08	0.269	
4	F710195 - BS1	0.264	26	1709614 - 09	0.273	
5	F710195 - BSD1	0.262	27	1709614 - 10	0.262	<u>Comments</u> <u>DUP/MS/MSD1</u>
6	F710195 - BS2	0.1279	28	1709614 - 11	0.277	<u>source: 1709612-05</u>
7	1709612 - 05	0.256	29	1709614 - 12	0.265	<u>MS2/MSD2</u>
8	F710195 - DUP1	0.256	30	1709614 - 13	0.270	<u>source: 170913-05</u>
9	F710195 - MS1	0.255	31	1709614 - 14	0.273	<u>BS1/BSD1</u>
10	F710195 - MSD1	0.270	32	<u>F710195 - BLK4</u>	0.250	<u>spiked with 200µg</u>
11	1709613 - 05	0.252	33	<u>F710195 - BLK5</u>	0.279	<u>of 1704421</u>
12	F710195 - MS2	0.251	34			<u>BLK4 & 5 are</u>
13	F710195 - MSB2	0.277	35			<u>Pre/Post blanks</u>
14	1709613 - 15	0.269	36			<u>for 1709614</u>
15	1709613 - 16	0.276	37			
16	1709613 - 17	0.270	38			
17	1709613 - 18	0.258	39			
18	1709613 - 19	0.260	40			
19	1709613 - 20	0.275	41			
20	1709614 - 03	0.263	42			
21	1709614 - 04	0.268	43			
22	<u>1709614 - 05</u>	0.277	44			

Failing Data Report - 7J04018

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
7J04018-CCV2	Hg-CVAFS-T-7030	6.348	1.000			5.0000	ng/L	127	77.00	123.00			PASS-OVER	FAIL-CCV	Re-Anal/Need
7J04018-CCV5	Hg-CVAFS-T-7030	6.566	1.000			5.0000	ng/L	131	77.00	123.00			PASS-OVER	FAIL-CCV	Re-Analyzed
7J04018-CCVB	Hg-CVAFS-T-7030	6.473	1.000			5.0000	ng/L	129	77.00	123.00			PASS-OVER	FAIL-CCV	
7J04018-CCVD	Hg-CVAFS-T-7030	6.262	1.000			5.0000	ng/L	125	77.00	123.00			PASS-OVER	FAIL-CCV	RR entire bracket

Dan Mozam 10/4/17
 Analyst Reviewed By Date

[Signature] 10/5/17
 Peer Reviewed By Date

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J04018
Reviewer: <u>RL 10/5/17</u>	Dataset ID(s): THG26003-171004-1
Date: 10/4/2017	WO (s) #: VARIOUS
Batch #(s): F710195, F710188	

• Select the correct preparation method.

Analyte	Prep Method	Matrix
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation Water
<input type="checkbox"/> Hg0	NA	NA Water
<input type="checkbox"/> Inorg Hg	NA	NA Water

RL
1709614-11, 12, 13, 14
E70195-0481, 451, 4501, 452, 4502

Analyst Initials: DM **Reviewer Initials:** RL 10/5/17

- | | | | |
|---|---|--|--|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | | | |
| (b) Check 5% of transcription from Instrument print-out and Excel file | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | | | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 50 ml / aliquot = Excel dilution value | | | |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J04018
Reviewer: 0 <i>AL 10/5/17</i>	Dataset ID(s): THG26003-171004-1
Date: 10/4/2017	WO (s) #: VARIOUS
Batch #(s): F710195, F710188	0

Analyst Initials DM **Reviewer Initials** AL 10/5/17

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: <u>SEQ-CCV2, CCV5, CCVB, CCVD FAILED.</u> | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J04018
Reviewer: 0 <i>R 10/5/17</i>	Dataset ID(s): THG26003-171004-1
Date: 10/4/2017	WO (s) #: VARIOUS
Batch #(s): F710195, F710188	0

Analyst Initials *DM* **Reviewer Initials** *R 10/5/17*

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Files located at: \\Cuprum\qen_admin\Quality Assurance\Training Master\DOCs | | | |
| 36. Date of analyst IDOC/CDOC: _____ 11/23/2016 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2016 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> |
| 38. Date of LOD: _____ 5/9/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> |
| 39. Date of LOQ: _____ 5/9/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709614

PO#

C012505850

October 13, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709614

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October 13, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OB-01_17ET001_091617_TOM_01_WB	1709614-01	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET001_091617_TOM_02_WB	1709614-02	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET001_091617_TOM_03_WB	1709614-03	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET001_091617_TOM_04_WB	1709614-04	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET001_091617_TOM_05_WB	1709614-05	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET001_091617_TOM_06_WB	1709614-06	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET001_091617_TOM_07_WB	1709614-07	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET001_091617_TOM_08_WB	1709614-08	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET001_091617_TOM_09_WB	1709614-09	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET002_091617_TOM_10_WB	1709614-10	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET002_091617_TOM_11_WB	1709614-11	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET002_091617_TOM_12_WB	1709614-12	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET003_091617_TOM_13_WB	1709614-13	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET004_091617_TOM_14_WB	1709614-14	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET004_091617_TOM_15_WB	1709614-15	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET004_091617_TOM_16_WB	1709614-16	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET005_091617_TOM_17_WB	1709614-17	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET006_091617_TOM_18_WB	1709614-18	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET007_091617_TOM_19_WB	1709614-19	Tissue	16-Sep-17 08:45	22-Sep-17 10:25
OB-01_17ET008_091617_TOM_20_WB	1709614-20	Tissue	16-Sep-17 08:45	22-Sep-17 10:25

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
13-Oct-17 12:34

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM. The samples were received intact, on-ice within two sealed coolers at -27.1 and -21.6 degrees Celsius.

Client requested Lipids Analysis by NOAA 1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches; F710195 and F710204. Per client request, sample 1709614-01 was used as the QC source in batch F710204. These samples were analyzed in sequences 7J04018, 7J05013, and 7J09010.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

Client: AMSC Foster Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/23/17 Labeled By: CSJ

Project: _____

Received By: LM Label Verified By: Ba

of Coolers Received: 2 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>1709614</u>	CF: <u>10.1</u> °C	Date/time: <u>9/22/17 10:25</u>	By: <u>LM</u>
Cooler 1: <u>27.2</u> °C	w/ CF: <u>-27.12</u> °C	Cooler 4: _____°C	w/ CF: _____°C
Cooler 2: <u>21.73</u> °C	w/ CF: <u>-21.63</u> °C	Cooler 5: _____°C	w/ CF: _____°C
Cooler 3: _____°C	w/ CF: _____°C	Cooler 6: _____°C	w/ CF: _____°C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	N	
Preservation type:	N	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4846 Cooler 2: 7878 1037 1884

1709614



1709614

Environmental Analysis Request/Chain of Custody

Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101		Matrix		Analyses Requested				For Lab Use Only							
Project Name#: USDC Penobscot		PN #: 3616166052 DAA 055		Preservation Codes				SF #:							
Project Manager: Rod Pendleton		P.O. #: 0072505850						SCR #:							
Sampler: JB		PWSID #:						Performance Codes							
Phone #:		Quote #:						10-PT To: Tissues 1-MSD To: MSD 5-MSD To: MSD 1-MSD							
State where samples were collected: <u>ME</u>		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>						Remarks							
Sample Identification		Collection		Composite		Matrix		Total # of Containers (5 100ml Liquid 100 10 25ml bag Freeze)							
		Date	Time	Grab	Seal	Water	Other								
1	08-01_17ET001_091617_TOM_01_WB	091617	08:05	X			X	1	X						
2	08-01_17ET001_091617_TOM_02_WB	091617	08:05	X			X	1	X						
3	08-01_17ET001_091617_TOM_03_WB	091617	08:06	X			X	1	X						
4	08-01_17ET001_091617_TOM_04_WB	091617	08:06	X			X	1	X						
5	08-01_17ET001_091617_TOM_05_WB	091617	08:06	X			X	1	X						
6	08-01_17ET001_091617_TOM_06_WB	091617	08:06	X			X	1	X						
7	08-01_17ET001_091617_TOM_07_WB	091617	08:06	X			X	1	X						
8	08-01_17ET001_091617_TOM_08_WB	091617	08:06	X			X	1	X						
9	08-01_17ET001_091617_TOM_09_WB	091617	08:06	X			X	1	X						
10	08-01_17ET002_091617_TOM_01_WS	091617	08:06	X			X	1	X						
11	08-01_17ET002_091617_TOM_02_WS	091617	08:06	X			X	1	X						
12	08-01_17ET002_091617_TOM_03_WS	091617	08:06	X			X	1	X						
13	08-01_17ET003_091617_TOM_01_WS	091617	08:06	X			X	1	X						
14	08-01_17ET004_091617_TOM_01_WS	091617	08:06	X			X	1	X						
15	08-01_17ET004_091617_TOM_02_WS	091617	08:06	X			X	1	X						
16	08-01_17ET004_091617_TOM_03_WS	091617	08:06	X			X	1	X						
17	08-01_17ET005_091617_TOM_01_WS	091617	08:06	X			X	1	X						
18	08-01_17ET006_091617_TOM_02_WS	091617	08:06	X			X	1	X						
19	08-01_17ET007_091617_TOM_03_WS	091617	08:06	X			X	1	X						
20	08-01_17ET008_091617_TOM_04_WS	091617	08:06	X			X	1	X						
Turnaround Time Requested (TAT) (please check):		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Relinquished by: <i>[Signature]</i>		Date: <u>9/21/2017</u>		Time: <u>1633</u>		Received by:		Date:		Time:	
(Rush TAT is subject to Laboratory approval and surcharges.)				Relinquished by:		Date:		Time:		Received by:		Date:		Time:	
Notes:				Relinquished by:		Date:		Time:		Received by:		Date:		Time:	
FedEx # <u>3102 4444 4849</u> # of Containers <u>2</u> Sample disposal: Hold Equipment 30 days 1-4 mtl 30 days after delivery of report Report and ECD to dsh60.lhg@amcfdw.com / 914-697-6531				Relinquished by:		Date:		Time:		Received by:		Date:		Time:	
Data Package Options (please check if required)		High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		Relinquished by Commercial Carrier:						Temperature upon receipt:				°C	
EOD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		If yes, format:		I/P:		FedEx:		Other:							

Eurofins Frontiers Global, Eastchoc - 11720 Northcreek Hwy N., Suite 401, Bothell, WA 98011 • 425-688-1595



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET001_091617_TOM_01_WB
1709614-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	274	1.62	14.4	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	
---------	-----	------	------	------	-----	---------	-----------	---------	-----------	-----------	--



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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET001_091617_TOM_02_WB
1709614-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	382	1.64	14.6	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET001_091617_TOM_03_WB
1709614-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	389	1.70	15.2	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET001_091617_TOM_04_WB
1709614-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	233	1.67	14.9	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET001_091617_TOM_05_WB
1709614-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	190	1.62	14.4	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET001_091617_TOM_06_WB
1709614-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	66.0	1.70	15.2	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET001_091617_TOM_07_WB
1709614-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	308	1.71	15.3	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET001_091617_TOM_08_WB
1709614-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	413	1.67	14.9	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET001_091617_TOM_09_WB
1709614-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	78.7	1.64	14.7	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET002_091617_TOM_10_WB
1709614-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	205	1.71	15.3	ng/g	400	F710195	02-Oct-17	7J04018	04-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET002_091617_TOM_11_WB
1709614-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	70.0	1.62	14.4	ng/g	400	F710195	02-Oct-17	7J05013	05-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET002_091617_TOM_12_WB
1709614-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	49.7	1.69	15.1	ng/g	400	F710195	02-Oct-17	7J05013	05-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET003_091617_TOM_13_WB
1709614-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	231	1.66	14.8	ng/g	400	F710195	02-Oct-17	7J05013	05-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET004_091617_TOM_14_WB
1709614-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	50.1	1.64	14.7	ng/g	400	F710195	02-Oct-17	7J05013	05-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET004_091617_TOM_15_WB
1709614-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	81.1	1.65	14.7	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET004_091617_TOM_16_WB
1709614-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	77.3	1.67	14.9	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET005_091617_TOM_17_WB
1709614-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	65.7	1.74	15.6	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET006_091617_TOM_18_WB
1709614-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	136	1.74	15.6	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET007_091617_TOM_19_WB
1709614-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	160	1.76	15.7	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

OB-01_17ET008_091617_TOM_20_WB
1709614-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	182	1.76	15.7	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 13-Oct-17 12:34
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J04018 - F710188											
Cal Standard (7J04018-CAL1)					Prepared & Analyzed: 04-Oct-17						
Mercury	0.487	-		ng/L	0.50100		97.2				
Cal Standard (7J04018-CAL2)					Prepared & Analyzed: 04-Oct-17						
Mercury	1.010	-		ng/L	1.0020		101				
Cal Standard (7J04018-CAL3)					Prepared & Analyzed: 04-Oct-17						
Mercury	4.807	-		ng/L	5.0100		95.9				
Cal Standard (7J04018-CAL4)					Prepared & Analyzed: 04-Oct-17						
Mercury	20.01	-		ng/L	20.040		99.8				
Cal Standard (7J04018-CAL5)					Prepared & Analyzed: 04-Oct-17						
Mercury	42.16	-		ng/L	40.080		105				
Calibration Blank (7J04018-CCB1)					Prepared & Analyzed: 04-Oct-17						
Mercury	0.335	-		ng/L							
Calibration Blank (7J04018-CCB3)					Prepared & Analyzed: 04-Oct-17						
Mercury	0.360	-		ng/L							
Calibration Blank (7J04018-CCB4)					Prepared & Analyzed: 04-Oct-17						
Mercury	0.271	-		ng/L							
Calibration Blank (7J04018-CCB6)					Prepared & Analyzed: 04-Oct-17						
Mercury	0.433	-		ng/L							
Calibration Blank (7J04018-CCB7)					Prepared & Analyzed: 04-Oct-17						
Mercury	0.342	-		ng/L							

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J04018 - F710188

Calibration Blank (7J04018-CCB8)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.340	-		ng/L							
Calibration Blank (7J04018-CCB9)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.398	-		ng/L							
Calibration Blank (7J04018-CCBA)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.382	-		ng/L							
Calibration Blank (7J04018-CCBB)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.489	-		ng/L							
Calibration Blank (7J04018-CCBC)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.426	-		ng/L							
Calibration Blank (7J04018-CCBD)											
Prepared & Analyzed: 04-Oct-17											
Mercury	0.305	-		ng/L							
Calibration Check (7J04018-CCV1)											
Prepared & Analyzed: 04-Oct-17											
Mercury	5.778	-		ng/L	5.0000		116	77-123			
Calibration Check (7J04018-CCV3)											
Prepared & Analyzed: 04-Oct-17											
Mercury	5.820	-		ng/L	5.0000		116	77-123			
Calibration Check (7J04018-CCV4)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.010	-		ng/L	5.0000		120	77-123			
Calibration Check (7J04018-CCV6)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.149	-		ng/L	5.0000		123	77-123			

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 13-Oct-17 12:34
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J04018 - F710188											
Calibration Check (7J04018-CCV7)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.165	-		ng/L	5.0000		123	77-123			
Calibration Check (7J04018-CCV8)											
Prepared & Analyzed: 04-Oct-17											
Mercury	5.827	-		ng/L	5.0000		117	77-123			
Calibration Check (7J04018-CCV9)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.120	-		ng/L	5.0000		122	77-123			
Calibration Check (7J04018-CCVA)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.010	-		ng/L	5.0000		120	77-123			
Calibration Check (7J04018-CCVB)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.473	-		ng/L	5.0000		129	77-123			
Calibration Check (7J04018-CCVC)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.043	-		ng/L	5.0000		121	77-123			
Calibration Check (7J04018-CCVD)											
Prepared & Analyzed: 04-Oct-17											
Mercury	6.262	-		ng/L	5.0000		125	77-123			
Instrument Blank (7J04018-IBL1)											
Prepared & Analyzed: 04-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J04018-IBL2)											
Prepared & Analyzed: 04-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J04018-IBL3)											
Prepared & Analyzed: 04-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J04018 - F710188											
Initial Cal Check (7J04018-ICV1)					Prepared & Analyzed: 04-Oct-17						
Mercury	5.631	-		ng/L	5.0000		113	79-121			
Batch 7J05013 - F710195											
Cal Standard (7J05013-CAL1)					Prepared & Analyzed: 05-Oct-17						
Mercury	0.554	-		ng/L	0.50100		111				
Cal Standard (7J05013-CAL2)					Prepared & Analyzed: 05-Oct-17						
Mercury	1.012	-		ng/L	1.0020		101				
Cal Standard (7J05013-CAL3)					Prepared & Analyzed: 05-Oct-17						
Mercury	4.823	-		ng/L	5.0100		96.3				
Cal Standard (7J05013-CAL4)					Prepared & Analyzed: 05-Oct-17						
Mercury	18.89	-		ng/L	20.040		94.2				
Cal Standard (7J05013-CAL5)					Prepared & Analyzed: 05-Oct-17						
Mercury	38.82	-		ng/L	40.080		96.8				
Calibration Blank (7J05013-CCB1)					Prepared & Analyzed: 05-Oct-17						
Mercury	0.166	-		ng/L							
Calibration Blank (7J05013-CCB2)					Prepared & Analyzed: 05-Oct-17						
Mercury	0.087	-		ng/L							
Calibration Blank (7J05013-CCB3)					Prepared & Analyzed: 05-Oct-17						
Mercury	0.105	-		ng/L							

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 13-Oct-17 12:34
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J05013 - F710195

Calibration Check (7J05013-CCV1) Prepared & Analyzed: 05-Oct-17

Mercury	5.021	-		ng/L	5.0000		100	77-123			
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Calibration Check (7J05013-CCV2) Prepared & Analyzed: 05-Oct-17

Mercury	4.974	-		ng/L	5.0000		99.5	77-123			
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Calibration Check (7J05013-CCV3) Prepared & Analyzed: 05-Oct-17

Mercury	4.747	-		ng/L	5.0000		94.9	77-123			
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Instrument Blank (7J05013-IBL1) Prepared & Analyzed: 05-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J05013-IBL2) Prepared & Analyzed: 05-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J05013-IBL3) Prepared & Analyzed: 05-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7J05013-ICV1) Prepared & Analyzed: 05-Oct-17

Mercury	4.960	-		ng/L	5.0000		99.2	79-121			
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Batch 7J09010 - F710204

Cal Standard (7J09010-CAL1) Prepared & Analyzed: 06-Oct-17

Mercury	0.520	-		ng/L	0.50100		104				
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Cal Standard (7J09010-CAL2) Prepared & Analyzed: 06-Oct-17

Mercury	1.027	-		ng/L	1.0020		103				
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AMEC Foster Wheeler
271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J09010 - F710204

Cal Standard (7J09010-CAL3)						Prepared & Analyzed: 06-Oct-17					
Mercury	4.852	-		ng/L	5.0100		96.8				
Cal Standard (7J09010-CAL4)						Prepared & Analyzed: 06-Oct-17					
Mercury	19.52	-		ng/L	20.040		97.4				
Cal Standard (7J09010-CAL5)						Prepared & Analyzed: 06-Oct-17					
Mercury	39.46	-		ng/L	40.080		98.5				
Calibration Blank (7J09010-CCB1)						Prepared & Analyzed: 06-Oct-17					
Mercury	0.070	-		ng/L							
Calibration Blank (7J09010-CCB2)						Prepared & Analyzed: 06-Oct-17					
Mercury	0.056	-		ng/L							
Calibration Blank (7J09010-CCB3)						Prepared & Analyzed: 06-Oct-17					
Mercury	0.056	-		ng/L							
Calibration Blank (7J09010-CCB4)						Prepared & Analyzed: 06-Oct-17					
Mercury	0.049	-		ng/L							
Calibration Blank (7J09010-CCB5)						Prepared & Analyzed: 06-Oct-17					
Mercury	0.123	-		ng/L							
Calibration Blank (7J09010-CCB6)						Prepared & Analyzed: 06-Oct-17					
Mercury	0.107	-		ng/L							
Calibration Blank (7J09010-CCB7)						Prepared & Analyzed: 06-Oct-17					
Mercury	0.196	-		ng/L							

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J09010 - F710204

Calibration Check (7J09010-CCV1)											
Prepared & Analyzed: 06-Oct-17											
Mercury	4.749	-		ng/L	5.0000		95.0	77-123			
Calibration Check (7J09010-CCV2)											
Prepared & Analyzed: 06-Oct-17											
Mercury	4.751	-		ng/L	5.0000		95.0	77-123			
Calibration Check (7J09010-CCV3)											
Prepared & Analyzed: 06-Oct-17											
Mercury	4.551	-		ng/L	5.0000		91.0	77-123			
Calibration Check (7J09010-CCV4)											
Prepared & Analyzed: 06-Oct-17											
Mercury	4.659	-		ng/L	5.0000		93.2	77-123			
Calibration Check (7J09010-CCV5)											
Prepared & Analyzed: 06-Oct-17											
Mercury	4.715	-		ng/L	5.0000		94.3	77-123			
Calibration Check (7J09010-CCV6)											
Prepared & Analyzed: 06-Oct-17											
Mercury	4.755	-		ng/L	5.0000		95.1	77-123			
Calibration Check (7J09010-CCV7)											
Prepared & Analyzed: 06-Oct-17											
Mercury	4.963	-		ng/L	5.0000		99.3	77-123			
Instrument Blank (7J09010-IBL1)											
Prepared & Analyzed: 06-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J09010-IBL2)											
Prepared & Analyzed: 06-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J09010-IBL3)											
Prepared & Analyzed: 06-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 13-Oct-17 12:34
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J09010 - F710204

Initial Cal Check (7J09010-ICV1)					Prepared & Analyzed: 06-Oct-17						
Mercury	4.849	-		ng/L	5.0000		97.0	79-121			

Batch F710195 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710195-BLK2)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	0.655	0.090	0.800	ng/g							J

Blank (F710195-BLK3)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	0.439	0.090	0.800	ng/g							J

Blank (F710195-BLK4)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	ND	0.090	0.800	ng/g							F-03, U

Blank (F710195-BLK5)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	ND	0.080	0.717	ng/g							F-03, U

Blank (F710195-BLK6)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	0.365	0.090	0.800	ng/g							J

Blank (F710195-BLK7)					Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	0.299	0.090	0.800	ng/g							J

Blank (F710195-BLK8)					Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	0.105	0.090	0.800	ng/g							J

Blank (F710195-BLK9)					Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	ND	0.090	0.800	ng/g							U



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 13-Oct-17 12:34
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710195 - EFGS-011 Nitric/Sulfuric Hg Digestion											
LCS (F710195-BS1)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	8.800	0.090	0.800	ng/g	8.0160		110	75-125			
LCS (F710195-BS2)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	374.1	3.50	31.3	ng/g	373.70		100	75-125			
LCS Dup (F710195-BSD1)					Prepared: 02-Oct-17 Analyzed: 04-Oct-17						
Mercury	9.444	0.090	0.800	ng/g	8.0160		118	75-125	7.06	24	
Duplicate (F710195-DUP2)					Source: 1709612-05 Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	152.9	1.75	15.6	ng/g		199.1			26.2	24	QR-07
Matrix Spike (F710195-MS3)					Source: 1709612-05 Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	505.3	1.76	15.7	ng/g	392.16	199.1	78.1	71-125			
Matrix Spike (F710195-MS4)					Source: 1709613-05 Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	671.6	1.78	15.9	ng/g	398.41	378.8	73.5	71-125			
Matrix Spike Dup (F710195-MSD3)					Source: 1709612-05 Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	502.1	1.66	14.8	ng/g	370.37	199.1	81.8	71-125	4.65	24	
Matrix Spike Dup (F710195-MSD4)					Source: 1709613-05 Prepared: 02-Oct-17 Analyzed: 05-Oct-17						
Mercury	638.0	1.62	14.4	ng/g	361.01	378.8	71.8	71-125	2.33	24	
Batch F710204 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710204-BLK1)					Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	0.204	0.090	0.800	ng/g							J

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 13-Oct-17 12:34
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710204 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710204-BLK2)												Prepared: 03-Oct-17 Analyzed: 06-Oct-17	
Mercury	0.134	0.090	0.800	ng/g								J	
Blank (F710204-BLK3)												Prepared: 03-Oct-17 Analyzed: 06-Oct-17	
Mercury	0.141	0.090	0.800	ng/g								J	
Blank (F710204-BLK4)												Prepared: 03-Oct-17 Analyzed: 06-Oct-17	
Mercury	ND	0.079	0.704	ng/g								F-03, U	
Blank (F710204-BLK5)												Prepared: 03-Oct-17 Analyzed: 06-Oct-17	
Mercury	ND	0.085	0.755	ng/g								F-03, U	
LCS (F710204-BS1)												Prepared: 03-Oct-17 Analyzed: 06-Oct-17	
Mercury	7.229	0.090	0.800	ng/g	8.0160		90.2	75-125					
LCS (F710204-BS2)												Prepared: 03-Oct-17 Analyzed: 06-Oct-17	
Mercury	331.0	3.50	31.2	ng/g	373.70		88.6	75-125					
LCS Dup (F710204-BSD1)												Prepared: 03-Oct-17 Analyzed: 06-Oct-17	
Mercury	7.582	0.090	0.800	ng/g	8.0160		94.6	75-125	4.76	24			
Duplicate (F710204-DUP1)												Prepared: 03-Oct-17 Analyzed: 06-Oct-17	
				Source: 1709614-02									
Mercury	374.4	1.65	14.7	ng/g		382.5			2.15	24			
Matrix Spike (F710204-MS1)												Prepared: 03-Oct-17 Analyzed: 06-Oct-17	
				Source: 1709614-01									
Mercury	591.4	1.61	14.4	ng/g	359.71	273.5	88.4	71-125					
Matrix Spike (F710204-MS2)												Prepared: 03-Oct-17 Analyzed: 06-Oct-17	
				Source: 1709614-02									
Mercury	695.8	1.62	14.5	ng/g	362.32	382.5	86.5	71-125					

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 13-Oct-17 12:34
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710204 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F710204-MSD1)		Source: 1709614-01			Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	606.3	1.72	15.4	ng/g	384.62	273.5	86.5	71-125	2.12	24	
Matrix Spike Dup (F710204-MSD2)		Source: 1709614-02			Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	712.6	1.64	14.7	ng/g	366.30	382.5	90.1	71-125	4.16	24	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:34

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

Analysis Datasheet for Total Mercury

Date of Analysis: October 04, 2017

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7J04018

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	59.17 units	118.35	50.78 units	101.56	97.4 %Rec
SEQ-CAL2	1	1.00 ng/L	113.70 units	113.70	105.30 units	105.30	101.0 %Rec
SEQ-CAL3	1	5.00 ng/L	509.55 units	101.91	501.16 units	100.23	96.1 %Rec
SEQ-CAL4	1	20.00 ng/L	2094.42 units	104.72	2086.03 units	104.30	100.0 %Rec
SEQ-CAL5	1	40.00 ng/L	4404.16 units	110.10	4395.77 units	109.89	105.4 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 104.26 +/- 3.75 3.6% RSD 109.76

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	8.39 units	±1.57	0.08 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	6.452 ng/L	±1.892
BLK	2	3	6.080 ng/L	±1.880
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: RL 10/5/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	DM2	CAL	SEQ-IBL1	1	10/4/2017 10:24:36	76860-1.RAW	10:24:36 AM	8.96			0.6	0.005	0.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	10/4/2017 10:28:45	76861-1.RAW	10:28:45 AM	6.62			-1.8	-0.017	-0.017	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	10/4/2017 10:32:53	76862-1.RAW	10:32:53 AM	9.60			1.2	0.012	0.012	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	10/4/2017 10:37:02	76863-1.RAW	10:37:02 AM	59.17			50.8	0.487	0.487	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	10/4/2017 10:41:10	76864-1.RAW	10:41:10 AM	113.70			105.3	1.010	1.010	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	10/4/2017 10:45:19	76865-1.RAW	10:45:19 AM	509.55			501.2	4.807	4.807	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	10/4/2017 10:49:27	76866-1.RAW	10:49:27 AM	2094.42			2086.0	20.008	20.008	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	10/4/2017 10:53:36	76867-1.RAW	10:53:36 AM	4404.16			4395.8	42.162	42.162	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	10/4/2017 10:57:44	76868-1.RAW	10:57:44 AM	595.51			587.1	5.631	5.631	ng/L	
Hg2600-3	DM2	BLK	F710188-BLK1	20	10/4/2017 11:01:52	76869-1.RAW	11:01:52 AM	53.13	1		44.7	0.429	8.582	ng/L	
Hg2600-3	DM2	BLK	F710188-BLK2	20	10/4/2017 11:06:01	76870-1.RAW	11:06:01 AM	38.66	1		30.3	0.290	5.807	ng/L	
Hg2600-3	DM2	BLK	F710188-BLK3	20	10/4/2017 11:10:09	76871-1.RAW	11:10:09 AM	34.29	1		25.9	0.248	4.967	ng/L	
Hg2600-3	DM2	SAM	*F710188-BLK4	20	10/4/2017 11:14:18	76872-1.RAW	11:14:18 AM	28.91	1		20.5	-0.126	-2.516	ng/L	
Hg2600-3	DM2	SAM	*F710188-BLK5	20	10/4/2017 11:18:26	76873-1.RAW	11:18:26 AM	27.66	1		19.3	-0.138	-2.755	ng/L	
Hg2600-3	DM2	SAM	*F710188-BLK6	20	10/4/2017 11:22:35	76874-1.RAW	11:22:35 AM	22.31	1		13.9	-0.189	-3.783	ng/L	
Hg2600-3	DM2	SAM	*F710188-BLK7	20	10/4/2017 11:26:43	76875-1.RAW	11:26:43 AM	20.18	1		11.8	-0.210	-4.191	ng/L	
Hg2600-3	DM2	SAM	F710188-BS1	20	10/4/2017 11:30:52	76876-1.RAW	11:30:52 AM	552.30	1		543.9	4.894	97.887	ng/L	
Hg2600-3	DM2	SAM	F710188-BSD1	20	10/4/2017 11:35:00	76877-1.RAW	11:35:00 AM	610.70	1		602.3	5.454	109.089	ng/L	
Hg2600-3	DM2	SAM	F710188-BS2	400	10/4/2017 11:39:08	76878-1.RAW	11:39:08 AM	637.52	1		629.1	6.018	2407.271	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	10/4/2017 11:43:17	76879-1.RAW	11:43:17 AM	610.79			602.4	5.778	5.778	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	10/4/2017 11:47:25	76880-1.RAW	11:47:25 AM	43.35			35.0	0.335	0.335	ng/L	
Hg2600-3	DM2	SAM	1709612-01	100	10/4/2017 11:51:34	76881-1.RAW	11:51:34 AM	1413.03	1		1404.6	13.408	1340.809	ng/L	
Hg2600-3	DM2	SAM	1709612-02	100	10/4/2017 11:56:03	76882-1.RAW	11:56:03 AM	2007.40	1		1999.0	19.109	1910.904	ng/L	
Hg2600-3	DM2	SAM	1709612-03	100	10/4/2017 12:00:11	76883-1.RAW	12:00:11 PM	1783.69	1		1775.3	16.963	1696.336	ng/L	
Hg2600-3	DM2	SAM	1709612-04	100	10/4/2017 12:04:20	76884-1.RAW	12:04:20 PM	2040.13	1		2031.7	19.423	1942.297	ng/L	
Hg2600-3	DM2	SAM	1709612-06	100	10/4/2017 12:08:28	76885-1.RAW	12:08:28 PM	3167.79	1		3159.4	30.239	3023.898	ng/L	
Hg2600-3	DM2	SAM	1709612-07	100	10/4/2017 12:12:37	76886-1.RAW	12:12:37 PM	2333.40	1		2325.0	22.236	2223.590	ng/L	
Hg2600-3	DM2	SAM	1709612-08	100	10/4/2017 12:16:45	76887-1.RAW	12:16:45 PM	2327.52	1		2319.1	22.179	2217.949	ng/L	
Hg2600-3	DM2	SAM	1709613-01	100	10/4/2017 12:20:53	76888-1.RAW	12:20:53 PM	3593.03	1		3584.6	34.318	3431.768	ng/L	
Hg2600-3	DM2	SAM	1709613-02	100	10/4/2017 12:25:02	76889-1.RAW	12:25:02 PM	1986.28	1		1977.9	18.907	1890.652	ng/L	
Hg2600-3	DM2	SAM	1709613-03	100	10/4/2017 12:29:10	76890-1.RAW	12:29:10 PM	963.23	1		954.8	9.094	909.383	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	10/4/2017 12:33:19	76891-1.RAW	12:33:19 PM	670.18			661.8	6.348	6.348	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	10/4/2017 12:37:27	76892-1.RAW	12:37:27 PM	66.07			57.7	0.553	0.553	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	10/4/2017 12:41:36	76893-1.RAW	12:41:36 PM	615.16			606.8	5.820	5.820	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	10/4/2017 12:45:44	76894-1.RAW	12:45:44 PM	634.96			626.6	6.010	6.010	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	10/4/2017 12:49:53	76895-1.RAW	12:49:53 PM	45.96			37.6	0.360	0.360	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	10/4/2017 12:54:01	76896-1.RAW	12:54:01 PM	36.65			28.3	0.271	0.271	ng/L	
Hg2600-3	DM2	SAM	1709613-04	100	10/4/2017 12:58:09	76897-1.RAW	12:58:09 PM	1617.98	1		1609.6	15.374	1537.395	ng/L	
Hg2600-3	DM2	SAM	1709613-06	100	10/4/2017 13:02:18	76898-1.RAW	1:02:18 PM	1415.51	1		1407.1	13.432	1343.196	ng/L	
Hg2600-3	DM2	SAM	1709613-07	100	10/4/2017 13:06:26	76899-1.RAW	1:06:26 PM	1241.22	1		1232.8	11.760	1176.025	ng/L	
Hg2600-3	DM2	SAM	1709613-08	100	10/4/2017 13:10:35	76900-1.RAW	1:10:35 PM	3050.78	1		3042.4	29.117	2911.671	ng/L	
Hg2600-3	DM2	SAM	1709613-09	100	10/4/2017 13:14:43	76901-1.RAW	1:14:43 PM	1624.51	1		1616.1	15.437	1543.658	ng/L	
Hg2600-3	DM2	SAM	1709613-10	100	10/4/2017 13:18:52	76902-1.RAW	1:18:52 PM	3076.51	1		3068.1	29.364	2936.353	ng/L	
Hg2600-3	DM2	SAM	1709613-11	100	10/4/2017 13:23:00	76903-1.RAW	1:23:00 PM	1792.77	1		1784.4	17.050	1705.046	ng/L	
Hg2600-3	DM2	SAM	1709613-12	100	10/4/2017 13:27:09	76904-1.RAW	1:27:09 PM	1441.32	1		1432.9	13.679	1367.948	ng/L	
Hg2600-3	DM2	SAM	1709613-13	100	10/4/2017 13:31:17	76905-1.RAW	1:31:17 PM	2087.56	1		2079.2	19.878	1987.789	ng/L	
Hg2600-3	DM2	SAM	1709613-14	100	10/4/2017 13:35:25	76906-1.RAW	1:35:25 PM	1749.42	1		1741.0	16.635	1663.460	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	10/4/2017 13:39:34	76907-1.RAW	1:39:34 PM	692.94			684.5	6.566	6.566	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	10/4/2017 13:43:42	76908-1.RAW	1:43:42 PM	63.30			54.9	0.527	0.527	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	10/4/2017 13:47:51	76909-1.RAW	1:47:51 PM	649.51			641.1	6.149	6.149	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	10/4/2017 13:51:59	76910-1.RAW	1:51:59 PM	651.11			642.7	6.165	6.165	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	10/4/2017 13:56:08	76911-1.RAW	1:56:08 PM	53.51			45.1	0.433	0.433	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	10/4/2017 14:00:16	76912-1.RAW	2:00:16 PM	44.03			35.6	0.342	0.342	ng/L	
Hg2600-3	DM2	SAM	F710188-DUP1	100	10/4/2017 14:05:56	76913-1.RAW	2:05:56 PM	2113.42	1		2105.0	20.126	2012.593	ng/L	
Hg2600-3	DM2	SAM	F710188-MS1	400	10/4/2017 14:10:05	76914-1.RAW	2:10:05 PM	2120.80	1		2112.4	20.245	8098.061	ng/L	
Hg2600-3	DM2	SAM	F710188-MSD1	400	10/4/2017 14:14:13	76915-1.RAW	2:14:13 PM	2073.72	1		2065.3	19.794	7917.412	ng/L	
Hg2600-3	DM2	SAM	F710188-MS2	400	10/4/2017 14:18:22	76916-1.RAW	2:18:22 PM	2413.30	1		2404.9	23.051	9220.261	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	DM2	SAM	F710188-MSD2	400	10/4/2017 14:22:30	76917-1.RAW	2:22:30 PM	2400.91	1						
Hg2600-3	DM2	SAM	*F710195-BLK1	20	10/4/2017 14:26:39	76918-1.RAW	2:26:39 PM	79.10	2		2392.5	22.932	9172.731	ng/L	
Hg2600-3	DM2	BLK	F710195-BLK2	20	10/4/2017 14:30:47	76919-1.RAW	2:30:47 PM	51.06	2		70.7	0.374	7.483	ng/L	
Hg2600-3	DM2	BLK	F710195-BLK3	20	10/4/2017 14:34:55	76920-1.RAW	2:34:55 PM	37.02	2		42.7	0.409	8.184	ng/L	
Hg2600-3	DM2	SAM	*F710195-BLK4	20	10/4/2017 14:39:04	76921-1.RAW	2:39:04 PM	31.85	2		28.6	0.275	5.493	ng/L	
Hg2600-3	DM2	SAM	*F710195-BLK5	20	10/4/2017 14:43:12	76922-1.RAW	2:43:12 PM	36.83	2		23.5	-0.079	-1.580	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	10/4/2017 14:47:21	76923-1.RAW	2:47:21 PM	615.92			28.4	-0.031	-0.626	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	10/4/2017 14:51:29	76924-1.RAW	2:51:29 PM	43.88			607.5	5.827	5.827	ng/L	
Hg2600-3	DM2	BLK	F710195-BLK6	20	10/4/2017 14:55:38	76925-1.RAW	2:55:38 PM	32.18	2		35.5	0.340	0.340	ng/L	
Hg2600-3	DM2	SAM	F710195-BS1	20	10/4/2017 14:59:46	76926-1.RAW	2:59:46 PM	613.52	2		23.8	0.228	4.564	ng/L	
Hg2600-3	DM2	SAM	F710195-BS2	400	10/4/2017 15:03:54	76927-1.RAW	3:03:54 PM	655.4614877	2		605.1	5.500	110.001	ng/L	
Hg2600-3	DM2	SAM	1709612-05	400	10/4/2017 15:08:03	76928-1.RAW	3:08:03 PM	633.49	2		647.1	5.902	118.048	ng/L	
Hg2600-3	DM2	SAM	1709613-05	400	10/4/2017 15:12:11	76929-1.RAW	3:12:11 PM	674.12	2		625.1	5.980	2392.197	ng/L	
Hg2600-3	DM2	SAM	1709613-15	400	10/4/2017 15:16:20	76930-1.RAW	3:16:20 PM	1254.11	2		665.7	6.370	2548.058	ng/L	
Hg2600-3	DM2	SAM	1709613-16	400	10/4/2017 15:20:28	76931-1.RAW	3:20:28 PM	1115.47	2		1245.7	11.933	4773.265	ng/L	
Hg2600-3	DM2	SAM	1709613-17	400	10/4/2017 15:24:37	76932-1.RAW	3:24:37 PM	268.43	2		1107.1	10.603	4241.371	ng/L	
Hg2600-3	DM2	SAM	1709613-18	400	10/4/2017 15:28:45	76933-1.RAW	3:28:45 PM	619.07	2		260.0	2.479	991.598	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	10/4/2017 15:32:54	76934-1.RAW	3:32:54 PM	521.87	2		610.7	5.842	2336.860	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	10/4/2017 15:37:02	76935-1.RAW	3:37:02 PM	646.44			513.5	4.910	1963.955	ng/L	
Hg2600-3	DM2	SAM	1709613-19	400	10/4/2017 15:41:10	76936-1.RAW	3:41:10 PM	49.89			638.0	6.120	6.120	ng/L	
Hg2600-3	DM2	SAM	1709613-20	400	10/4/2017 15:45:41	76937-1.RAW	3:45:41 PM	275.56	2		41.5	0.398	0.398	ng/L	
Hg2600-3	DM2	SAM	1709614-03	400	10/4/2017 15:49:49	76938-1.RAW	3:49:49 PM	270.55	2		267.2	2.547	1018.940	ng/L	
Hg2600-3	DM2	SAM	1709614-04	400	10/4/2017 15:53:58	76939-1.RAW	3:53:58 PM	1343.71	2		262.2	2.499	999.737	ng/L	
Hg2600-3	DM2	SAM	1709614-05	400	10/4/2017 15:58:06	76940-1.RAW	3:58:06 PM	824.01	2		1335.3	12.793	5117.011	ng/L	
Hg2600-3	DM2	SAM	1709614-06	400	10/4/2017 16:02:15	76941-1.RAW	4:02:15 PM	695.92	2		815.6	7.808	3123.128	ng/L	
Hg2600-3	DM2	SAM	1709614-07	400	10/4/2017 16:06:23	76942-1.RAW	4:06:23 PM	237.18	2		687.5	6.579	2631.684	ng/L	
Hg2600-3	DM2	SAM	1709614-08	400	10/4/2017 16:10:32	76943-1.RAW	4:10:32 PM	1060.98	2		228.8	2.179	871.691	ng/L	
Hg2600-3	DM2	SAM	1709614-09	400	10/4/2017 16:14:40	76944-1.RAW	4:14:40 PM	1459.41	2		1052.6	10.081	4032.319	ng/L	
Hg2600-3	DM2	SAM	1709614-10	400	10/4/2017 16:18:48	76945-1.RAW	4:18:48 PM	289.94	2		1451.0	13.902	5560.908	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVA	1	10/4/2017 16:22:57	76946-1.RAW	4:22:57 PM	709.68	2		281.5	2.685	1074.117	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	10/4/2017 16:27:05	76947-1.RAW	4:27:05 PM	634.95			701.3	6.711	2684.499	ng/L	
Hg2600-3	DM2	SAM	1709614-11	400	10/4/2017 16:31:14	76948-1.RAW	4:31:14 PM	48.25			626.6	6.010	6.010	ng/L	
Hg2600-3	DM2	SAM	1709614-12	400	10/4/2017 16:35:49	76949-1.RAW	4:35:49 PM	337.92	2		39.9	0.382	0.382	ng/L	
Hg2600-3	DM2	SAM	1709614-13	400	10/4/2017 16:39:58	76950-1.RAW	4:39:58 PM	227.32	2		329.5	3.146	1258.203	ng/L	
Hg2600-3	DM2	SAM	1709614-14	400	10/4/2017 16:44:06	76951-1.RAW	4:44:06 PM	990.21	2		218.9	2.085	833.876	ng/L	
Hg2600-3	DM2	SAM	F710195-DUP1	400	10/4/2017 16:48:15	76952-1.RAW	4:48:15 PM	224.22	2		981.8	9.402	3760.771	ng/L	
Hg2600-3	DM2	SAM	F710195-MS1	400	10/4/2017 16:52:23	76953-1.RAW	4:52:23 PM	640.26	2		215.8	2.055	821.958	ng/L	
Hg2600-3	DM2	SAM	F710195-MSD1	400	10/4/2017 16:56:32	76954-1.RAW	4:56:32 PM	2123.75	2		631.9	6.045	2418.141	ng/L	
Hg2600-3	DM2	SAM	F710195-MS2	400	10/4/2017 17:00:40	76955-1.RAW	5:00:40 PM	2243.91	2		2115.4	20.274	8109.736	ng/L	
Hg2600-3	DM2	SAM	F710195-MSD2	400	10/4/2017 17:04:49	76956-1.RAW	5:04:49 PM	2644.84	2		2235.5	21.427	8570.770	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVB	1	10/4/2017 17:08:57	76957-1.RAW	5:08:57 PM	2898.40	2		2636.4	25.272	10108.957	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBB	1	10/4/2017 17:13:04	76958-1.RAW	5:13:04 PM	683.31			2890.0	27.705	11081.802	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVC	1	10/4/2017 17:17:11	76959-1.RAW	5:17:11 PM	59.38			674.9	6.473	6.473	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVD	1	10/4/2017 17:21:19	76960-1.RAW	5:21:19 PM	638.48			51.0	0.489	0.489	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBC	1	10/4/2017 17:25:27	76961-1.RAW	5:25:27 PM	661.22			630.1	6.043	6.043	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBD	1	10/4/2017 17:29:35	76962-1.RAW	5:29:35 PM	52.79			652.8	6.262	6.262	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBD	1	10/4/2017 17:33:44	76963-1.RAW	5:33:44 PM	40.20			44.4	0.426	0.426	ng/L	
											31.8	0.305	0.305	ng/L	

TotalMercury EPA1631
 Operat: DM
 Works: THg2601
 Method: ##### R:
 Descrip: THg26003-171004-1

BlankS: 8.3923
 CalibEqn:
 Status: 104.26
 R2: 0.9997

Conc = (Area-8.392
 QC Warnings:6/QC E
 0.9994

Run Date: 10/4/2017
 Run Time: 16:31:40

Blank SD: 1.571514632
 Blank RSD%: 18.72565975
 CF SD: 3.753088289
 CF RSD%: 3.599794362

Sample/ID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eft)	Flags	RunCount
Clean				0.00	4.93					76855-1.RAW	10:05:11	513.48	Clean	OK	1
CLEAN										76856-1.RAW	10:08:03	0.00	Clean	NP	1
WS				8.39	0.00					76857-1.RAW	10:12:11	6.11	Sample	OK	1
WS				8.39	0.00					76858-1.RAW	10:16:20	6.18	Sample	OK	1
WS				8.39	0.00					76859-1.RAW	10:20:28	5.45	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.09					76860-1.RAW	10:24:36	8.96	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.06					76861-1.RAW	10:28:45	6.62	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.09					76862-1.RAW	10:32:53	9.60	Sample	OK	1
SEQ-CAL1	A4		1	8.39	0.49			97.41		76863-1.RAW	10:37:02	59.17	Sample	OK	1
SEQ-CAL2	A5		1	8.39	1.01			101.00		76864-1.RAW	10:41:10	113.70	Sample	OK	1
SEQ-CAL3	A6		1	8.39	4.81			96.14		76865-1.RAW	10:45:19	509.55	Sample	OK	1
SEQ-CAL4	A7		1	8.39	20.01			100.04		76866-1.RAW	10:49:27	2094.42	Sample	OK	1
SEQ-CAL5	A8		1	8.39	42.16			105.41		76867-1.RAW	10:53:36	4404.16	Sample	FB	1
SEQ-ICV1	A9		1	8.39	5.63			112.63		76868-1.RAW	10:57:44	595.51	Sample	OK	1
F710188-BLK1	A10		20	8.39	8.58					76869-1.RAW	11:01:52	53.13	Sample	OK	1
F710188-BLK2	A11		20	8.39	5.81					76870-1.RAW	11:06:01	38.66	Sample	OK	1
F710188-BLK3	A12		20	8.39	4.97					76871-1.RAW	11:10:09	34.29	Sample	OK	1
*F710188-BLK4	B1		20	8.39	3.94					76872-1.RAW	11:14:18	28.91	Sample	OK	1
*F710188-BLK5	B2		20	8.39	3.70					76873-1.RAW	11:18:26	27.66	Sample	OK	1
*F710188-BLK6	B3		20	8.39	2.67					76874-1.RAW	11:22:35	22.31	Sample	OK	1
*F710188-BLK7	B4		20	8.39	2.26					76875-1.RAW	11:26:43	20.18	Sample	OK	1
F710188-BS1	B5		20	8.39	104.34					76876-1.RAW	11:30:52	552.30	Sample	OK	1
F710188-BSD1	B6		20	8.39	115.54					76877-1.RAW	11:35:00	610.70	Sample	OK	1
F710188-BS2	B7		400	8.39	2413.72					76878-1.RAW	11:39:08	637.52	Sample	OK	1
SEQ-CCV1	B8		1	8.39	5.78			115.56		76879-1.RAW	11:43:17	610.79	Sample	OK	1
SEQ-CCB1	B9		1	8.39	0.34			0.00		76880-1.RAW	11:47:25	43.35	Sample	OK	1
1709612-01	B10		100	8.39	1347.26					76881-1.RAW	11:51:34	1413.03	Sample	OK	1
1709612-02	B11		100	8.39	1917.36					76882-1.RAW	11:56:03	2007.40	Sample	OK	1
1709612-03	B12		100	8.39	1702.79					76883-1.RAW	12:00:11	1783.69	Sample	FB	1
1709612-04	C1		100	8.39	1948.75					76884-1.RAW	12:04:20	2040.13	Sample	OK	1
1709612-06	C2		100	8.39	3030.35					76885-1.RAW	12:08:28	3167.79	Sample	OK	1
1709612-07	C3		100	8.39	2230.04					76886-1.RAW	12:12:37	2333.40	Sample	FB	1
1709612-08	C4		100	8.39	2224.40					76887-1.RAW	12:16:45	2327.52	Sample	OK	1
1709613-01	C5		100	8.39	3438.22					76888-1.RAW	12:20:53	3593.03	Sample	FB	1
1709613-02	C6		100	8.39	1897.10					76889-1.RAW	12:25:02	1986.28	Sample	OK	1
1709613-03	C7		100	8.39	915.84					76890-1.RAW	12:29:10	963.23	Sample	OK	1
SEQ-CCV2	C8		1	8.39	6.35			126.95		76891-1.RAW	12:33:19	670.18	Sample	OK	1
SEQ-CCB2	C9		1	8.39	0.55			0.00		76892-1.RAW	12:37:27	66.07	Sample	OK	1
SEQ-CCV3	A1		1	8.39	5.82			116.40		76893-1.RAW	12:41:36	615.16	Sample	OK	1
SEQ-CCV4	A2		1	8.39	6.01			120.20		76894-1.RAW	12:45:44	634.96	Sample	OK	1
SEQ-CCB3	A3		1	8.39	0.36			0.00		76895-1.RAW	12:49:53	45.96	Sample	OK	1
SEQ-CCB4	A4		1	8.39	0.27			0.00		76896-1.RAW	12:54:01	36.65	Sample	OK	1
1709613-04	C10		100	8.39	1543.85					76897-1.RAW	12:58:09	1617.98	Sample	OK	1
1709613-06	C11		100	8.39	1349.65					76898-1.RAW	13:02:18	1415.51	Sample	FB	1
1709613-07	C12		100	8.39	1182.48					76899-1.RAW	13:06:26	1241.22	Sample	OK	1
1709613-08	D1		100	8.39	2918.12					76900-1.RAW	13:10:35	3050.78	Sample	FB	1
1709613-09	D2		100	8.39	1550.11					76901-1.RAW	13:14:43	1624.51	Sample	OK	1
1709613-10	D3		100	8.39	2942.81					76902-1.RAW	13:18:52	3076.51	Sample	OK	1
1709613-11	D4		100	8.39	1711.50					76903-1.RAW	13:23:00	1792.77	Sample	OK	1
1709613-12	D5		100	8.39	1374.40					76904-1.RAW	13:27:09	1441.32	Sample	OK	1
1709613-13	D6		100	8.39	1994.24					76905-1.RAW	13:31:17	2087.56	Sample	OK	1
1709613-14	D7		100	8.39	1669.91					76906-1.RAW	13:35:25	1749.42	Sample	FB	1
SEQ-CCV5	D8		1	8.39	6.57			131.32		76907-1.RAW	13:39:34	692.94	Sample	OK	1
SEQ-CCB5	D9		1	8.39	0.53			0.00		76908-1.RAW	13:43:42	63.30	Sample	OK	1
SEQ-CCV6	C1		1	8.39	6.15			122.99		76909-1.RAW	13:47:51	649.51	Sample	OK	1
SEQ-CCV7	C2		1	8.39	6.16			123.29		76910-1.RAW	13:51:59	651.11	Sample	OK	1
SEQ-CCB6	C3		1	8.39	0.43			0.00		76911-1.RAW	13:56:08	53.51	Sample	OK	1
SEQ-CCB7	C4		1	8.39	0.34			0.00		76912-1.RAW	14:00:16	44.03	Sample	OK	1
F710188-DUP1	D10		100	8.39	2019.05					76913-1.RAW	14:05:56	2113.42	Sample	FB	1
F710188-MS1	D11		400	8.39	8104.51			401.20		76914-1.RAW	14:10:05	2120.80	Sample	FB	1
F710188-MSD1	D12		400	8.39	7923.86					76915-1.RAW	14:14:13	2073.72	Sample	OK	1
F710188-MS2	A1		400	8.39	9226.71			116.41		76916-1.RAW	14:18:22	2413.30	Sample	FB	1

ANALYSIS SEQUENCE

7J04018

Instrument: Hg2600-3 ✓

Calibration ID: UNASSIGNED

Analyzed: 10/4/2017 ✓

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J04018-IBL1 ✓	QC	1			
7J04018-IBL2 ✓	QC	2			
7J04018-IBL3 ✓	QC	3			
7J04018-CAL1 ✓	QC	4	1704505 ✓		
7J04018-CAL2 ✓	QC	5	1704506 ✓		
7J04018-CAL3 ✓	QC	6	1704507 ✓		
7J04018-CAL4 ✓	QC	7	1704508 ✓		
7J04018-CAL5 ✓	QC	8	1704509 ✓		
7J04018-ICV1 ✓	QC	9	1705628 ✓		
F710188-BLK1 ✓	QC	10			
F710188-BLK2 ✓	QC	11			
F710188-BLK3 ✓	QC	12			
F710188-BLK4 ✓	QC	13			
F710188-BLK5 ✓	QC	14			
F710188-BLK6 ✓	QC	15			
F710188-BLK7 ✓	QC	16			
F710188-BS1 ✓	QC	17			
F710188-BSD1 ✓	QC	18			
F710188-BS2 ✓	QC	19			
7J04018-CCV1 ✓	QC	20	1705628 ✓		
7J04018-CCB1 ✓	QC	21			
1709612-01 ✓	Hg-CVAFS-T-7030	22			
1709612-02 ✓	Hg-CVAFS-T-7030	23			
1709612-03 ✓	Hg-CVAFS-T-7030	24			
1709612-04 ✓	Hg-CVAFS-T-7030	25			
1709612-06 ✓	Hg-CVAFS-T-7030	26			
1709612-07 ✓	Hg-CVAFS-T-7030	27			
1709612-08 ✓	Hg-CVAFS-T-7030	28			
1709613-01 ✓	Hg-CVAFS-T-7030	29			
1709613-02 ✓	Hg-CVAFS-T-7030	30			
1709613-03 ✓	Hg-CVAFS-T-7030	31			
7J04018-CCV2 ✓	QC	32	1705628 ✓		
7J04018-CCB2 ✓	QC	33			
7J04018-CCV3 ✓	QC	34	1705628 ✓		
7J04018-CCV4 ✓	QC	35	1705628 ✓		

Due Date: 10/20/2017

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ANALYSIS SEQUENCE

7J04018

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/4/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J04018-CCB3 /	QC	36			
7J04018-CCB4 /	QC	37			
1709613-04 /	Hg-CVAFS-T-7030	38			
1709613-06 /	Hg-CVAFS-T-7030	39			
1709613-07 /	Hg-CVAFS-T-7030	40			
1709613-08 /	Hg-CVAFS-T-7030	41			
1709613-09 /	Hg-CVAFS-T-7030	42			
1709613-10 /	Hg-CVAFS-T-7030	43			
1709613-11 /	Hg-CVAFS-T-7030	44			
1709613-12 /	Hg-CVAFS-T-7030	45			
1709613-13 /	Hg-CVAFS-T-7030	46			
1709613-14 /	Hg-CVAFS-T-7030	47			
7J04018-CCV5 /	QC	48	1705628	/	
7J04018-CCB5 /	QC	49			
7J04018-CCV6 /	QC	50	1705628	/	
7J04018-CCV7 /	QC	51	1705628	/	
7J04018-CCB6	QC	52			
7J04018-CCB7 /	QC	53			
F710188-DUP1 /	QC	54			
F710188-MS1 /	QC	55			
F710188-MSD1 /	QC	56			
F710188-MS2 /	QC	57			
F710188-MSD2 /	QC	58			
F710195-BLK1 /	QC	59			
F710195-BLK2 /	QC	60			
F710195-BLK3 /	QC	61			
F710195-BLK4 /	QC	62			
F710195-BLK5 /	QC	63			
7J04018-CCV8 /	QC	64	1705628	/	
7J04018-CCB8 /	QC	65			
F710195-BLK6 /	QC	66			
F710195-BS1 /	QC	67			
F710195-BSD1 /	QC	68			
F710195-BS2 /	QC	69			
1709612-05 /	Hg-CVAFS-T-7030	70			

Due Date: 10/20/2017

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ANALYSIS SEQUENCE

7J04018

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/4/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709613-05 ✓	Hg-CVAFS-T-7030	71			
1709613-15 ✓	Hg-CVAFS-T-7030	72			
1709613-16 ✓	Hg-CVAFS-T-7030	73			
1709613-17 ✓	Hg-CVAFS-T-7030	74			
1709613-18 ✓	Hg-CVAFS-T-7030	75			
7J04018-CCV9 ✓	QC	76	1705628 ✓		
7J04018-CCB9 ✓	QC	77			
1709613-19 ✓	Hg-CVAFS-T-7030	78			
1709613-20 ✓	Hg-CVAFS-T-7030	79			
1709614-03 ✓	Hg-CVAFS-T-7030	80			
1709614-04 ✓	Hg-CVAFS-T-7030	81			
1709614-05 ✓	Hg-CVAFS-T-7030	82			
1709614-06 ✓	Hg-CVAFS-T-7030	83			
1709614-07 ✓	Hg-CVAFS-T-7030	84			
1709614-08 ✓	Hg-CVAFS-T-7030	85			
1709614-09 ✓	Hg-CVAFS-T-7030	86			
1709614-10 ✓	Hg-CVAFS-T-7030	87			
7J04018-CCVA ✓	QC	88	1705628 ✓		
7J04018-CCBA ✓	QC	89			
1709614-11 ✓	Hg-CVAFS-T-7030	90			
1709614-12 ✓	Hg-CVAFS-T-7030	91			
1709614-13 ✓	Hg-CVAFS-T-7030	92			
1709614-14 ✓	Hg-CVAFS-T-7030	93			
F710195-DUP1 ✓	QC	94			
F710195-MS1 ✓	QC	95			
F710195-MSD1 ✓	QC	96			
F710195-MS2 ✓	QC	97			
F710195-MSD2 ✓	QC	98			
7J04018-CCVB ✓	QC	99	1705628 ✓		
7J04018-CCBB ✓	QC	100			
7J04018-CCVC ✓	QC	101	1705628 ✓		
7J04018-CCVD ✓	QC	102	1705628 ✓		
7J04018-CCBC ✓	QC	103			
7J04018-CCBD ✓	QC	104			

Due Date: 10/20/2017

45 of 134

Page 3 of 4

ANALYSIS SEQUENCE

7J04018

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/4/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Don Moorem 10/4/17
Samples Loaded By Date

Don Moorem 10/4/17
Data Processed By Date

PREPARATION BENCH SHEET

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710188-BLK1	Blank	0.25	20					
F710188-BLK2	Blank	0.25	20					
F710188-BLK3	Blank	0.25	20					
F710188-BLK4	Blank	0.2703	20					Pre-homogenization Blank for 1709612
F710188-BLK5	Blank	0.2768	20					Post-homogenization Blank for 1709612
F710188-BLK6	Blank	0.2545	20					Pre-homogenization Blank for 1709613
F710188-BLK7	Blank	0.2889	20					Post-homogenization Blank for 1709613
F710188-BS1	LCS	0.25	20	1704421	20			
F710188-BS2	LCS	0.1263	20	1705412	126.3			
F710188-BSD1	LCS Dup	0.25	20	1704421	20			
F710188-DUP1	Duplicate [1709612-02]	0.2503	20					
F710188-MS1	Matrix Spike [1709612-02]	0.2631	20	1705554	100			
F710188-MS2	Matrix Spike [1709613-01]	0.2659	20	1705554	100			
F710188-MSD1	Matrix Spike Dup [1709612-02]	0.2617	20	1705554	100			
F710188-MSD2	Matrix Spike Dup [1709613-01]	0.2645	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705823	5% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00

PREPARATION BENCH SHEET

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709612-01	BO-04_17ET008_091717_TOM_01_WB	0.2569	20	-	-	-		
1709612-02	BO-04_17ET010_091717_TOM_02_WB	0.2587	20	QC	-	-	MS/MSD	
1709612-03	BO-04_17ET014_091717_TOM_03_WB	0.2763	20	-	-	-		
1709612-04	BO-04_17ET025_092017_TOM_04_WB	0.2548	20	-	-	-		
1709612-06	BO-04_17ET030_092017_TOM_06_WB	0.27	20	-	-	-		
1709612-07	BO-04_17ET035_092017_TOM_07_WB	0.2573	20	-	-	-		
1709612-08	BO-04_17ET041_092017_TOM_08_WB	0.2735	20	-	-	-		
1709613-01	OB-05_17ET002_091717_TOM_01_WB	0.2564	20	QC	-	-	MS/MSD	
1709613-02	OB-05_17ET002_091717_TOM_02_WB	0.2716	20	-	-	-		
1709613-03	OB-05_17ET003_091717_TOM_03_WB	0.2574	20	-	-	-		
1709613-04	OB-05_17ET003_091717_TOM_04_WB	0.2529	20	-	-	-		
1709613-06	OB-05_17ET010_091717_TOM_06_WB	0.2692	20	-	-	-		
1709613-07	OB-05_17ET011_091717_TOM_07_WB	0.2592	20	-	-	-		
1709613-08	OB-05_17ET012_091717_TOM_08_WB	0.2532	20	-	-	-		
1709613-09	OB-05_17ET012_091717_TOM_09_WB	0.2626	20	-	-	-		
1709613-10	OB-05_17ET013_091717_TOM_10_WB	0.2582	20	-	-	-	Sample contains enough volume for QC	
1709613-11	OB-05_17ET013_091717_TOM_11_WB	0.2752	20	-	-	-		
1709613-12	OB-05_17ET014_091717_TOM_12_WB	0.265	20	-	-	-		
1709613-13	OB-05_17ET 014_091717_TOM_13_WB	0.2506	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710188

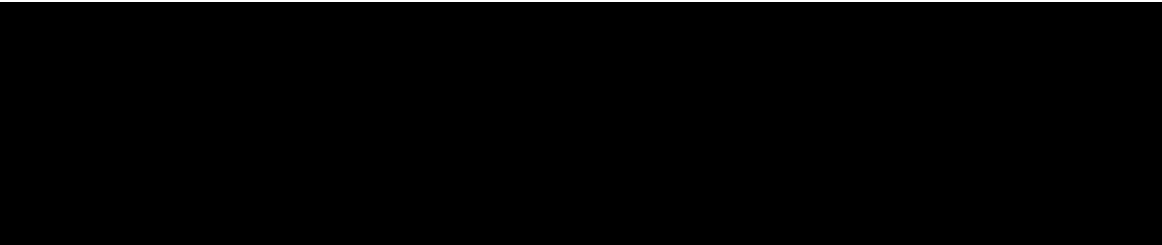
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709613-14	OB-05_17ET014_091717_TOM_14_WB	0.2636	20	-	-	-		
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PREPARATION BENCH SHEET

2000-3
10/4/17 DM

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710188-BLK1	Blank	0.25	20					20X
F710188-BLK2	Blank	0.25	20					20X
F710188-BLK3	Blank	0.25	20					20X
F710188-BLK4	Blank	0.2703	20					Pre-homogenization Blank for 1709612 20X
F710188-BLK5	Blank	0.2768	20					Post-homogenization Blank for 1709612 20X
F710188-BLK6	Blank	0.2545	20					Pre-homogenization Blank for 1709613 20X
F710188-BLK7	Blank	0.2889	20					Post-homogenization Blank for 1709613 20X
F710188-BS1	LCS	0.25	20	1704421	20			20X
F710188-BS2	LCS	0.1263	20	1705412	126.3			400X
F710188-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710188-DUP1	Duplicate [1709612-02]	0.2503	20					100X
F710188-MS1	Matrix Spike [1709612-02]	0.2631	20	1705554	100			400X
F710188-MS2	Matrix Spike [1709613-01]	0.2659	20	1705554	100			400X
F710188-MSD1	Matrix Spike Dup [1709612-02]	0.2617	20	1705554	100			400X
F710188-MSD2	Matrix Spike Dup [1709613-01]	0.2645	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1705412	DORM-4	06-Jan-20 00:00	1705823	5% BrCl	22-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00

20X = 2.5mL
400X = 125µl
100X = 500µl

1705779
1705411
1705610
1703182

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-3
10/4/17 DM

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709612-01	BO-04_17ET008_091717_TOM_01_WB	0.2569	20	-	-	-		100X ✓
1709612-02	BO-04_17ET010_091717_TOM_02_WB	0.2587	20	QC	-	-	MS/MSD	100X ✓
1709612-03	BO-04_17ET014_091717_TOM_03_WB	0.2763	20	-	-	-		100X ✓
1709612-04	BO-04_17ET025_092017_TOM_04_WB	0.2548	20	-	-	-		100X ✓
1709612-06	BO-04_17ET030_092017_TOM_06_WB	0.27	20	-	-	-		100X ✓
1709612-07	BO-04_17ET035_092017_TOM_07_WB	0.2573	20	-	-	-		100X ✓
1709612-08	BO-04_17ET041_092017_TOM_08_WB	0.2735	20	-	-	-		100X ✓
1709613-01	OB-05_17ET002_091717_TOM_01_WB	0.2564	20	QC	-	-	MS/MSD	100X ✓
1709613-02	OB-05_17ET002_091717_TOM_02_WB	0.2716	20	-	-	-		100X ✓
1709613-03	OB-05_17ET003_091717_TOM_03_WB	0.2574	20	-	-	-		100X ✓
1709613-04	OB-05_17ET003_091717_TOM_04_WB	0.2529	20	-	-	-		100X ✓
1709613-06	OB-05_17ET010_091717_TOM_06_WB	0.2692	20	-	-	-		100X ✓
1709613-07	OB-05_17ET011_091717_TOM_07_WB	0.2592	20	-	-	-		100X ✓
1709613-08	OB-05_17ET012_091717_TOM_08_WB	0.2532	20	-	-	-		100X ✓
1709613-09	OB-05_17ET012_091717_TOM_09_WB	0.2626	20	-	-	-		100X ✓
1709613-10	OB-05_17ET013_091717_TOM_10_WB	0.2582	20	-	-	-	Sample contains enough volume for QC	100X ✓
1709613-11	OB-05_17ET013_091717_TOM_11_WB	0.2752	20	-	-	-		100X ✓
1709613-12	OB-05_17ET014_091717_TOM_12_WB	0.265	20	-	-	-		100X ✓
1709613-13	OB-05_17ET 014_091717_TOM_13_WB	0.2506	20	-	-	-		100X ✓

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2100-3
10/4/17 DM

F710188

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709613-14	OB-05_17ET014_091717_TOM_14_WB	0.2636	20	-	-	-		100% ✓
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Technician: CWF Batch#: F710188 Date: 10/2/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance #: 19 Calibrated? Yes No Therm. #: 14949 Calibrated? Yes No

*Time in: 16:30 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C

Time out: 18:30 Actual Temp. (raw): 84.0 °C w/ CF: 84.1 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705823) Spike vol.: 100 µL (LIMS ID: 1705554)

Spike Witness: R 10-2-17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: MUM619 Calibration Date: 9/26/17

HNO₃ LIMS ID: N/A

Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1705859

Dispenser #: 0202749 Calibrated? Yes No

Other Acid LIMS ID: N/A

Dispenser #: 15406623

Glass Vial # 00068647 Boiling Chip lot # 1704424 *Hotblock Position: LS

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710188 - Blk1	0.2554	23	1709613 -- 06	0.2692	BS2 = DO RM-4
2	F710188 - Blk2	0.2689	24	1709613 - 07	0.2592	LIMS: 1705412
3	F710188 - Blk3	0.2706	25	1709613 - 08	0.2737 0.2532	
4	F710188 - BS1	0.2766	26	1709613 - 09	0.2626	Comments
5	F710188 - BSD1	0.2666	27	1709613 - 10	0.2582	DUP1/MS1/MSD1
6	F710188 - BS2	0.1263	28	1709613 - 11	0.2752	source: 1709612-02
7	1709612 - 01	0.2569	29	1709613 - 12	0.2650	MS2/MSD2
8	1709612 - 02	0.2587	30	1709613 - 13	0.2506	source: 1709613-01
9	F710188 - DUP1	0.2503	31	1709613 - 14	0.2636	Blk4 + 5 are
10	F710188 - MS1	0.2631	32	F710188 - Blk4	0.2703	Pre/Post blanks for
11	F710188 - MSD1	0.2617	33	1710188 - Blk5	0.2768	1709612 respectively
12	1709612 - 03	0.2763	34	1710188 - Blk6	0.2545	Blk6 + 7 are
13	1709612 - 04	0.2548	35	1710188 - Blk7	0.2889	Pre/Post blanks for
14	1709612 - 06	0.2700	36			1709613 respectively
15	1709612 - 07	0.2573	37			BS1/BSD1 spiked
16	1709612 - 08	0.2735	38			with 20µL of
17	1709613 - 01	0.2564	39			1704424
18	F710188 - MS2	0.2659	40			
19	F710188 - MSD2	0.2645	41			
20	1709613 - 02	0.2716	42			
21	1709613 - 03	0.2574	43			
22	1709613 - 04	0.2529	44			

CWF
10/3/17

CWF
10/3/17

PREPARATION BENCH SHEET

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710195-BLK1	Blank	0.25	20					
F710195-BLK2	Blank	0.25	20					
F710195-BLK3	Blank	0.25	20					
F710195-BLK4	Blank	0.25	20					Pre-homogenization Blank for 1709614
F710195-BLK5	Blank	0.279	20					Post-homogenization Blank for 1709614
F710195-BLK6	Blank	0.25	20					RR of BLK1
F710195-BS1	LCS	0.25	20	1704421	20			
F710195-BS2	LCS	0.1279	20	1705412	127.9			
F710195-BSD1	LCS Dup	0.25	20	1704421	20			
F710195-DUP1	Duplicate [1709612-05]	0.256	20					
F710195-MS1	Matrix Spike [1709612-05] ✓	0.255	20	1705554	100			
F710195-MS2	Matrix Spike [1709613-05] ✓	0.251	20	1705554	100			
F710195-MSD1	Matrix Spike Dup [1709612-05] ✓	0.27	20	1705554	100			
F710195-MSD2	Matrix Spike Dup [1709613-05] ✓	0.277	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>
1704421	THg 100ng/mL Primary Spiking Standard
1705412	DORM-4
1705554	THg 1,000ng/mL Secondary Spiking Standard

<u>Expiration:</u>
21-Oct-17 00:00
06-Jan-20 00:00
18-Mar-18 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705610	THg Washstation (0.5% BrCl)	
1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
1705823	5% BrCl	22-Jan-18 00:00
1705859	70/30 Digestion Acid	28-Mar-18 00:00

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709612-05	BO-04_17ET026_092017_TOM_05_WB	0.256	20	-	-	-	Sample contains enough volume for QC	
1709613-05	OB-05_17ET009_091717_TOM_05_WB	0.252	20	-	-	-	Sample contains enough volume for QC	
1709613-15	OB-05_17ET014_091717_TOM_15_WB	0.269	20	-	-	-		
1709613-16	OB-05_17ET002_091817_TOM_16_WB	0.276	20	-	-	-		
1709613-17	OB-05_17ET003_091817_TOM_17_WB	0.27	20	-	-	-		
1709613-18	OB-05_17ET003_091817_TOM_18_WB	0.258	20	-	-	-		
1709613-19	OB-05_17ET005_091817_TOM_19_WB	0.26	20	-	-	-		
1709613-20	OB-05_17ET008_091817_TOM_20_WB	0.275	20	-	-	-		
1709614-03	OB-01_17ET001_091617_TOM_03_WB	0.263	20	-	-	-		
1709614-04	OB-01_17ET001_091617_TOM_04_WB	0.268	20	-	-	-		
1709614-05	OB-01_17ET001_091617_TOM_05_WB	0.277	20	-	-	-		
1709614-06	OB-01_17ET001_091617_TOM_06_WB	0.264	20	-	-	-		
1709614-07	OB-01_17ET001_091617_TOM_07_WB	0.262	20	-	-	-		
1709614-08	OB-01_17ET001_091617_TOM_08_WB	0.269	20	-	-	-		
1709614-09	OB-01_17ET001_091617_TOM_09_WB	0.273	20	-	-	-		
1709614-10	OB-01_17ET002_091617_TOM_10_WB	0.262	20	-	-	-		
1709614-11	OB-01_17ET002_091617_TOM_11_WB	0.277	20	-	-	-		
1709614-12	OB-01_17ET002_091617_TOM_12_WB	0.265	20	-	-	-		
1709614-13	OB-01_17ET003_091617_TOM_13_WB	0.27	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709614-14	OB-01_17ET004_091617_TOM_14_WB	0.273	20	-	-	-		
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PREPARATION BENCH SHEET

2600-3
10/4/17 DM

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710195-BLK1	Blank	0.25	20					20x -
F710195-BLK2	Blank	0.25	20					20x -
F710195-BLK3	Blank	0.25	20					20x -
F710195-BLK4	Blank	0.25	20					Pre-homogenization Blank for 1709614 20x
F710195-BLK5	Blank	0.279	20					Post-homogenization Blank for 1709614 20x
F710195-BS1	LCS	0.25	20	1704421	20			20x -
F710195-BS2	LCS	0.1279	20	1705412	127.9			400x -
F710195-BSD1	LCS Dup	0.25	20	1704421	20			20x -
F710195-DUP1	Duplicate 1709612-05	0.256	20					400x -
F710195-MS1	Matrix Spike 1709612-05	0.255	20	1705554	100			400x -
F710195-MS2	Matrix Spike 1709613-05	0.251	20	1705554	100			400x -
F710195-MSD1	Matrix Spike Dup 1709612-05	0.27	20	1705554	100			400x -
F710195-MSD2	Matrix Spike Dup 1709613-05	0.277	20	1705554	100			400x -

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705823	5% BrCl	22-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00

BLK 6 re-run of BLK 1

~~MS1, MSD1 - re-run of MS2, MSD2~~
1/10 DM 10/4

20x = 2.5mL
400x = 125 µl

1705610
1705611
1703182
1705779

Due Date: 10/20/2017

PREPARATION BENCH SHEET

200.3

10/4/17 DM

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709612-05	BO-04_17ET026_092017_TOM_05_WB	0.256	20	-	-	-	Sample contains enough volume for QC	400x ✓
1709613-05	OB-05_17ET009_091717_TOM_05_WB	0.252	20	-	-	-	Sample contains enough volume for QC	400x ✓
1709613-15	OB-05_17ET014_091717_TOM_15_WB	0.269	20	-	-	-		400x ✓
1709613-16	OB-05_17ET002_091817_TOM_16_WB	0.276	20	-	-	-		400x ✓
1709613-17	OB-05_17ET003_091817_TOM_17_WB	0.27	20	-	-	-		400x ✓
1709613-18	OB-05_17ET003_091817_TOM_18_WB	0.258	20	-	-	-		400x ✓
1709613-19	OB-05_17ET005_091817_TOM_19_WB	0.26	20	-	-	-		400x ✓
1709613-20	OB-05_17ET008_091817_TOM_20_WB	0.275	20	-	-	-		400x ✓
1709614-03	OB-01_17ET001_091617_TOM_03_WB	0.263	20	-	-	-		400x ✓
1709614-04	OB-01_17ET001_091617_TOM_04_WB	0.268	20	-	-	-		400x ✓
1709614-05	OB-01_17ET001_091617_TOM_05_WB	0.277	20	-	-	-		400x ✓
1709614-06	OB-01_17ET001_091617_TOM_06_WB	0.264	20	-	-	-		400x ✓
1709614-07	OB-01_17ET001_091617_TOM_07_WB	0.262	20	-	-	-		400x ✓
1709614-08	OB-01_17ET001_091617_TOM_08_WB	0.269	20	-	-	-		400x ✓
1709614-09	OB-01_17ET001_091617_TOM_09_WB	0.273	20	-	-	-		400x ✓
1709614-10	OB-01_17ET002_091617_TOM_10_WB	0.262	20	-	-	-		400x ✓
1709614-11	OB-01_17ET002_091617_TOM_11_WB	0.277	20	-	-	-		400x ✓
1709614-12	OB-01_17ET002_091617_TOM_12_WB	0.265	20	-	-	-		400x ✓
1709614-13	OB-01_17ET003_091617_TOM_13_WB	0.27	20	-	-	-		400x ✓

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-3
10/4/17 DM

F710195

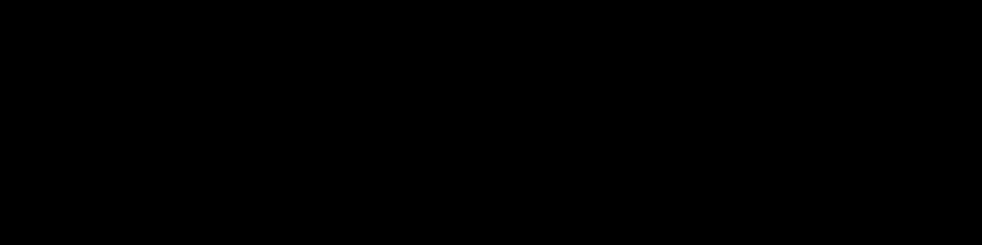
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709614-14	OB-01_17ET004_091617_TOM_14_WB	0.273	20	-	-	-		400X
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Technician: CWF Batch#: FA10195 Date: 10/2/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance #: 102149 6.19 Calibrated? Yes No Therm. #: 14549 Calibrated? Yes No

*Time in: 16:30 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C

Time out: 18:30 Actual Temp. (raw): 84.0 °C w/ CF: 84.1 °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705823) Spike vol.: 100 µL (LIMS ID: 1705594)
 Spike Witness: A 10-2-17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MUM619 Calibration Date: 9/26/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705859 Dispenser #: 02K2749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 1506023
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: LS

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> BS2 <input type="checkbox"/> NA
1	F710195 - BLK1	0.268	23	1709614 - 06	0.264	<u>BS2</u> <u>NA</u> <u>CWF 10/2/17</u>
2	F710195 - BLK2	0.251	24	1709614 - 07	0.262	<u>BS2/BSD = DORM-4</u>
3	F710195 - BLK3	0.256	25	1709614 - 08	0.269	<u>LIMS: 1705412</u>
4	F710195 - BS1	0.264	26	1709614 - 09	0.273	Comments
5	F710195 - BSD1	0.262	27	1709614 - 10	0.262	
6	F710195 - BS2	0.1279	28	1709614 - 11	0.277	<u>DUP / MS / MSDI</u>
7	1709612 - 05	0.256	29	1709614 - 12	0.265	<u>source: 1709612-05</u>
8	F710195 - DUP1	0.256	30	1709614 - 13	0.270	<u>MS2 / MS22</u>
9	F710195 - MS1	0.255	31	1709614 - 14	0.273	<u>source: 170913-05</u>
10	F710195 - MSD1	0.270	32	F710195 - BLK4	0.250	<u>BS1 / BSD1</u>
11	1709613 - 05	0.252	33	F710195 - BLK5	0.279	
12	F710195 - MS2	0.251	34	<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); opacity: 0.5;"></div> CWF 10/3/17		<u>spiked with 200µg of 1704421</u>
13	F710195 - MSB2	0.277	35			<u>BLK4 & 5 are Pre/Post blanks for 1709614</u>
14	1709613 - 15	0.269	36			
15	1709613 - 16	0.276	37			
16	1709613 - 17	0.270	38			
17	1709613 - 18	0.258	39			
18	1709613 - 19	0.260	40			
19	1709613 - 20	0.275	41			
20	1709614 - 03	0.263	42			
21	1709614 - 04	0.268	43			
22	1709614 - 05	0.277	44			

Failing Data Report - 7J04018

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
7J04018-CCV2	Hg-CVAFS-T-7030	6.348	1.000			5.0000	ng/L	127	77.00	123.00			PASS-OVER	FAIL-CCV	Re-Analyzed
7J04018-CCV5	Hg-CVAFS-T-7030	6.566	1.000			5.0000	ng/L	131	77.00	123.00			PASS-OVER	FAIL-CCV	Re-Analyzed
7J04018-CCVB	Hg-CVAFS-T-7030	6.473	1.000			5.0000	ng/L	129	77.00	123.00			PASS-OVER	FAIL-CCV	
7J04018-CCVD	Hg-CVAFS-T-7030	6.262	1.000			5.0000	ng/L	125	77.00	123.00			PASS-OVER	FAIL-CCV	Re-Analyzed

Re-Analyzed
 Re-Analyzed
 Re-Analyzed
 Re-Analyzed

 Dan Moran 10/4/17
 Analyst Reviewed By Date

 [Signature] 10/5/17
 Peer Reviewed By Date

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J04018
Reviewer: <u>RL 10/5/17</u>	Dataset ID(s): THG26003-171004-1
Date: 10/4/2017	WO (s) #: VARIOUS
Batch #(s): F710195, F710188	

• Select the correct preparation method.

Analyte	Prep Method	Matrix
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation Water
<input type="checkbox"/> Hg0	NA	NA Water
<input type="checkbox"/> Inorg Hg	NA	NA Water

RL
1709614-11, 12, 13, 14
E70195-0481, 451, 4501, 452, 4502

Analyst Initials: DM **Reviewer Initials:** RL 10/5/17

- | | | | |
|---|---|--|--|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?
Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Check 5% of transcription from Instrument print-out and Excel file
Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel?
50 ml / aliquot = Excel dilution value | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J04018
Reviewer: 0 <i>AL 10/5/17</i>	Dataset ID(s): THG26003-171004-1
Date: 10/4/2017	WO (s) #: VARIOUS
Batch #(s): F710195, F710188	0

Analyst Initials DM **Reviewer Initials** AL 10/5/17

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: <u>SEQ-CCV2, CCV5, CCVB, CCVD FAILED.</u> | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J04018
Reviewer: 0 <i>R 10/5/17</i>	Dataset ID(s): THG26003-171004-1
Date: 10/4/2017	WO (s) #: VARIOUS
Batch #(s): F710195, F710188	0

Analyst Initials *DM* **Reviewer Initials** *R 10/5/17*

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs | | | |
| 36. Date of analyst IDOC/CDOC: _____ 11/23/2016 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2016 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> |
| 38. Date of LOD: _____ 5/9/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> |
| 39. Date of LOQ: _____ 5/9/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.



Frontier Global Sciences

THg26002-171005-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 05, 2017

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7J05014, 7J05015, 7J05013

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	102.43 units	204.86	94.60 units	189.19	110.9 %Rec
SEQ-CAL2	1	1.00 ng/L	180.46 units	180.46	172.62 units	172.62	101.2 %Rec
SEQ-CAL3	1	5.00 ng/L	830.62 units	166.12	822.79 units	164.56	96.5 %Rec
SEQ-CAL4	1	20.00 ng/L	3229.82 units	161.49	3221.99 units	161.10	94.4 %Rec
SEQ-CAL5	1	40.00 ng/L	6630.09 units	165.75	6622.26 units	165.56	97.0 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						
Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF				
170.61	+/- 11.20	6.6% RSD	175.74				

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	7.83 units	±6.16	0.04 ng/L	±0.04

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.771 ng/L	±1.787
BLK	2	3	16.885 ng/L	±11.941
BLK	3	2	0.638 ng/L	±0.584
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: DM 10/6/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-2	DM2	CAL	SEQ-JBL1	1	10/5/2017 10:45:27	86611-1.RAW	10:45:27 AM	13.12			5.3	0.031	0.031	ng/L	
Hg2600-2	DM2	CAL	SEQ-JBL2	1	10/5/2017 10:49:36	86612-1.RAW	10:49:36 AM	9.32			1.5	0.009	0.009	ng/L	
Hg2600-2	DM2	CAL	SEQ-JBL3	1	10/5/2017 10:53:44	86613-1.RAW	10:53:44 AM	1.06			-6.8	-0.040	-0.040	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	10/5/2017 10:57:53	86614-1.RAW	10:57:53 AM	102.43			94.6	0.554	0.554	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	10/5/2017 11:02:01	86615-1.RAW	11:02:01 AM	180.46			172.6	1.012	1.012	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	10/5/2017 11:06:10	86616-1.RAW	11:06:10 AM	830.62			822.8	4.823	4.823	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	10/5/2017 11:10:18	86617-1.RAW	11:10:18 AM	3229.82			3222.0	18.886	18.886	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	10/5/2017 11:14:26	86618-1.RAW	11:14:26 AM	6630.09			6622.3	38.816	38.816	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	10/5/2017 11:18:35	86619-1.RAW	11:18:35 AM	854.11			846.3	4.960	4.960	ng/L	
Hg2600-2	DM2	BLK	F710195-BLK7	20	10/5/2017 11:22:43	86620-1.RAW	11:22:43 AM	39.75	1		31.9	0.187	3.742	ng/L	
Hg2600-2	DM2	BLK	F710195-BLK8	20	10/5/2017 11:26:52	86621-1.RAW	11:26:52 AM	19.05	1		11.2	0.066	1.315	ng/L	
Hg2600-2	DM2	BLK	F710195-BLK9	20	10/5/2017 11:31:00	86622-1.RAW	11:31:00 AM	10.01	1		2.2	0.013	0.255	ng/L	
Hg2600-2	DM2	SAM	1709614-11RE1	400	10/5/2017 11:35:08	86623-1.RAW	11:35:08 AM	422.09	1		414.3	2.424	969.482	ng/L	
Hg2600-2	DM2	SAM	1709614-12RE1	400	10/5/2017 11:39:17	86624-1.RAW	11:39:17 AM	289.25	1		281.4	1.645	658.048	ng/L	
Hg2600-2	DM2	SAM	1709614-13RE1	400	10/5/2017 11:43:25	86625-1.RAW	11:43:25 AM	1338.35	1		1330.5	7.794	3117.741	ng/L	
Hg2600-2	DM2	SAM	1709614-14RE1	400	10/5/2017 11:47:34	86626-1.RAW	11:47:34 AM	300.29	1		292.5	1.710	683.917	ng/L	
Hg2600-2	DM2	SAM	F710195-DUP2	400	10/5/2017 11:51:42	86627-1.RAW	11:51:42 AM	843.26	1		835.4	4.892	1956.963	ng/L	
Hg2600-2	DM2	SAM	F710195-MS3	400	10/5/2017 11:55:51	86628-1.RAW	11:55:51 AM	2756.54	1		2748.7	16.107	6442.812	ng/L	
Hg2600-2	DM2	SAM	F710195-MSD3	400	10/5/2017 11:59:59	86629-1.RAW	11:59:59 AM	2899.53	1		2891.7	16.945	6778.083	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	10/5/2017 12:04:07	86630-1.RAW	12:04:07 PM	864.43			856.6	5.021	5.021	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	10/5/2017 12:08:16	86631-1.RAW	12:08:16 PM	36.10			28.3	0.166	0.166	ng/L	
Hg2600-2	DM2	SAM	F710195-MS4	400	10/5/2017 12:12:24	86632-1.RAW	12:12:24 PM	3603.38	1		3595.5	21.071	8428.315	ng/L	
Hg2600-2	DM2	SAM	F710195-MSD4	400	10/5/2017 12:16:33	86633-1.RAW	12:16:33 PM	3777.37	1		3769.5	22.091	8836.257	ng/L	
Hg2600-2	DM2	BLK	F710193-BLK1	100	10/5/2017 12:20:41	86634-1.RAW	12:20:41 PM	60.14	2		52.3	0.307	30.658	ng/L	
Hg2600-2	DM2	BLK	F710193-BLK2	100	10/5/2017 12:24:50	86635-1.RAW	12:24:50 PM	25.81	2		18.0	0.105	10.539	ng/L	
Hg2600-2	DM2	BLK	F710193-BLK3	100	10/5/2017 12:28:58	86636-1.RAW	12:28:58 PM	23.97	2		16.1	0.095	9.456	ng/L	
Hg2600-2	DM2	SAM	F710193-BS1	400	10/5/2017 12:33:07	86637-1.RAW	12:33:07 PM	2000.38	2		1992.5	11.637	4654.815	ng/L	
Hg2600-2	DM2	SAM	F710193-BSD1	400	10/5/2017 12:37:16	86638-1.RAW	12:37:16 PM	1981.36	2		1973.5	11.526	4610.226	ng/L	
Hg2600-2	DM2	SAM	1709806-31	100	10/5/2017 12:41:24	86639-1.RAW	12:41:24 PM	66.98	2		59.1	0.178	17.782	ng/L	
Hg2600-2	DM2	SAM	1709806-32	100	10/5/2017 12:45:33	86640-1.RAW	12:45:33 PM	33.01	2		25.2	-0.021	-2.129	ng/L	
Hg2600-2	DM2	SAM	1709806-33	100	10/5/2017 12:49:41	86641-1.RAW	12:49:41 PM	33.18	2		25.3	-0.020	-2.028	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	10/5/2017 12:53:50	86642-1.RAW	12:53:50 PM	856.41			848.6	4.974	4.974	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	10/5/2017 12:57:58	86643-1.RAW	12:57:58 PM	22.76			14.9	0.087	0.087	ng/L	
Hg2600-2	DM2	SAM	F710195-DUP3	400	10/5/2017 13:02:07	86644-1.RAW	1:02:07 PM	883.78	1		875.9	5.130	2051.961	ng/L	
Hg2600-2	DM2	SAM	F710195-MS5	400	10/5/2017 13:06:15	86645-1.RAW	1:06:15 PM	3441.80	1		3434.0	20.124	8049.469	ng/L	
Hg2600-2	DM2	SAM	F710195-MSD5	400	10/5/2017 13:10:23	86646-1.RAW	1:10:23 PM	3786.79	1		3779.0	22.146	8858.343	ng/L	
Hg2600-2	DM2	SAM	1709806-34	100	10/5/2017 13:14:32	86647-1.RAW	1:14:32 PM	73.67	2		65.8	0.217	21.706	ng/L	
Hg2600-2	DM2	SAM	1709806-35	100	10/5/2017 13:18:40	86648-1.RAW	1:18:40 PM	44.23	2		36.4	0.044	4.447	ng/L	
Hg2600-2	DM2	SAM	1709806-36	100	10/5/2017 13:22:49	86649-1.RAW	1:22:49 PM	36.08	2		28.2	-0.003	-0.328	ng/L	
Hg2600-2	DM2	SAM	1709807-01	100	10/5/2017 13:26:57	86650-1.RAW	1:26:57 PM	172.53	2		164.7	0.797	79.653	ng/L	
Hg2600-2	DM2	SAM	1709807-02	100	10/5/2017 13:31:06	86651-1.RAW	1:31:06 PM	34.97	2		27.1	-0.010	-0.980	ng/L	
Hg2600-2	DM2	SAM	1709808-01	100	10/5/2017 13:35:14	86652-1.RAW	1:35:14 PM	30.17	2		22.3	-0.038	-3.790	ng/L	
Hg2600-2	DM2	SAM	1709806-31B	100	10/5/2017 13:39:22	86653-1.RAW	1:39:22 PM	167.67	2		159.8	0.768	76.804	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	10/5/2017 13:43:31	86654-1.RAW	1:43:31 PM	817.78			809.9	4.747	4.747	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	10/5/2017 13:47:39	86655-1.RAW	1:47:39 PM	25.68			17.9	0.105	0.105	ng/L	
Hg2600-2	DM2	SAM	1709806-32B	100	10/5/2017 13:51:48	86656-1.RAW	1:51:48 PM	24.43	2		16.6	-0.072	-7.159	ng/L	
Hg2600-2	DM2	SAM	1709806-33B	100	10/5/2017 13:55:56	86657-1.RAW	1:55:56 PM	18.38	2		10.5	-0.107	-10.704	ng/L	
Hg2600-2	DM2	SAM	1709806-34B	100	10/5/2017 14:00:05	86658-1.RAW	2:00:05 PM	20.92	2		13.1	-0.092	-9.215	ng/L	
Hg2600-2	DM2	SAM	1709806-35B	100	10/5/2017 14:04:13	86659-1.RAW	2:04:13 PM	24.32	2		16.5	-0.072	-7.220	ng/L	
Hg2600-2	DM2	SAM	1709806-36B	100	10/5/2017 14:08:21	86660-1.RAW	2:08:21 PM	11.50	2		3.7	-0.147	-14.733	ng/L	
Hg2600-2	DM2	SAM	1709807-01B	100	10/5/2017 14:12:30	86661-1.RAW	2:12:30 PM	13.79	2		6.0	-0.134	-13.392	ng/L	
Hg2600-2	DM2	SAM	1709807-02B	100	10/5/2017 14:16:38	86662-1.RAW	2:16:38 PM	26.79	2		19.0	-0.058	-5.774	ng/L	
Hg2600-2	DM2	SAM	1709808-01B	100	10/5/2017 14:20:47	86663-1.RAW	2:20:47 PM	20.50	2		12.7	-0.095	-9.458	ng/L	
Hg2600-2	DM2	SAM	F710193-DUP1	100	10/5/2017 14:24:55	86664-1.RAW	2:24:55 PM	171.58	2		163.7	0.791	79.095	ng/L	
Hg2600-2	DM2	SAM	F710193-MS1	100	10/5/2017 14:29:03	86665-1.RAW	2:29:03 PM	598.88	2		591.0	3.296	329.553	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	10/5/2017 14:33:12	86666-1.RAW	2:33:12 PM	856.47			848.6	4.974	4.974	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	10/5/2017 14:37:20	86667-1.RAW	2:37:20 PM	20.16			12.3	0.072	0.072	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	DM2	SAM	F710193-MSD1	100	10/5/2017 14:41:29	86668-1.RAW	2:41:29 PM	596.00	2		588.2	3.279	327.867	ng/L	
Hg2600-2	DM2	BLK	F710213-BLK1	10	10/5/2017 14:47:13	86669-1.RAW	2:47:13 PM	25.76	3		17.9	0.105	1.051	ng/L	
Hg2600-2	DM2	BLK	F710213-BLK2	10	10/5/2017 14:51:21	86670-1.RAW	2:51:21 PM	11.66	3		3.8	0.022	0.224	ng/L	
Hg2600-2	DM2	SAM	F710213-BS1	400	10/5/2017 14:55:30	86671-1.RAW	2:55:30 PM	98.16	3		90.3	0.528	211.147	ng/L	
Hg2600-2	DM2	SAM	F710213-BSD1	400	10/5/2017 14:59:38	86672-1.RAW	2:59:38 PM	105.63	3		97.8	0.572	228.652	ng/L	
Hg2600-2	DM2	SAM	1709558-05	10	10/5/2017 15:03:47	86673-1.RAW	3:03:47 PM	920.88	3		913.0	5.288	52.880	ng/L	
Hg2600-2	DM2	SAM	1709558-06	10	10/5/2017 15:07:55	86674-1.RAW	3:07:55 PM	1028.02	3		1020.2	5.916	59.160	ng/L	
Hg2600-2	DM2	SAM	1709558-07	10	10/5/2017 15:12:03	86675-1.RAW	3:12:03 PM	985.76	3		977.9	5.668	56.683	ng/L	
Hg2600-2	DM2	SAM	1709558-08	10	10/5/2017 15:16:12	86676-1.RAW	3:16:12 PM	894.48	3		886.6	5.133	51.333	ng/L	
Hg2600-2	DM2	SAM	1709558-09	10	10/5/2017 15:20:20	86677-1.RAW	3:20:20 PM	829.58	3		821.7	4.753	47.529	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	10/5/2017 15:24:29	86678-1.RAW	3:24:29 PM	855.9091968			848.1	4.971	4.971	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	10/5/2017 15:28:37	86679-1.RAW	3:28:37 PM	19.25			11.4	0.067	0.067	ng/L	
Hg2600-2	DM2	SAM	F710213-BS2	100	10/5/2017 15:32:46	86680-1.RAW	3:32:46 PM	359.44	3		351.6	2.055	205.454	ng/L	
Hg2600-2	DM2	SAM	F710213-BSD2	100	10/5/2017 15:36:54	86681-1.RAW	3:36:54 PM	357.30	3		349.5	2.042	204.199	ng/L	
Hg2600-2	DM2	SAM	1709558-10	10	10/5/2017 15:41:02	86682-1.RAW	3:41:02 PM	808.68	3		800.8	4.630	46.304	ng/L	
Hg2600-2	DM2	SAM	1709558-11	10	10/5/2017 15:45:11	86683-1.RAW	3:45:11 PM	637.16	3		629.3	3.625	36.250	ng/L	
Hg2600-2	DM2	SAM	1709558-12	10	10/5/2017 15:49:19	86684-1.RAW	3:49:19 PM	661.07	3		653.2	3.765	37.652	ng/L	
Hg2600-2	DM2	SAM	1709558-13	10	10/5/2017 15:53:28	86685-1.RAW	3:53:28 PM	589.62	3		581.8	3.346	33.464	ng/L	
Hg2600-2	DM2	SAM	1709558-14	10	10/5/2017 15:57:36	86686-1.RAW	3:57:36 PM	681.74	3		673.9	3.886	38.864	ng/L	
Hg2600-2	DM2	SAM	1709558-15	10	10/5/2017 16:01:44	86687-1.RAW	4:01:44 PM	643.74	3		635.9	3.664	36.636	ng/L	
Hg2600-2	DM2	SAM	1709561-01	10	10/5/2017 16:05:53	86688-1.RAW	4:05:53 PM	5376.42	3		5368.6	31.404	314.041	ng/L	
Hg2600-2	DM2	SAM	1709561-02	10	10/5/2017 16:10:01	86689-1.RAW	4:10:01 PM	1832.91	3		1825.1	10.634	106.339	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	10/5/2017 16:14:10	86690-1.RAW	4:14:10 PM	877.12			869.3	5.095	5.095	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	10/5/2017 16:18:18	86691-1.RAW	4:18:18 PM	32.39			24.6	0.144	0.144	ng/L	
Hg2600-2	DM2	SAM	1709561-03	10	10/5/2017 16:22:27	86692-1.RAW	4:22:27 PM	544.55	3		536.7	3.082	30.822	ng/L	
Hg2600-2	DM2	SAM	1709561-04	10	10/5/2017 16:26:35	86693-1.RAW	4:26:35 PM	347.80	3		340.0	1.929	19.289	ng/L	
Hg2600-2	DM2	SAM	1709561-05	10	10/5/2017 16:30:43	86694-1.RAW	4:30:43 PM	442.63	3		434.8	2.485	24.848	ng/L	
Hg2600-2	DM2	SAM	1709561-06	10	10/5/2017 16:34:52	86695-1.RAW	4:34:52 PM	461.81	3		454.0	2.597	25.972	ng/L	
Hg2600-2	DM2	SAM	1709562-01	10	10/5/2017 16:39:00	86696-1.RAW	4:39:00 PM	10947.93	3		10940.1	64.061	640.613	ng/L	
Hg2600-2	DM2	SAM	1709562-02	10	10/5/2017 16:43:09	86697-1.RAW	4:43:09 PM	13547.40	3		13539.6	79.298	792.980	ng/L	
Hg2600-2	DM2	SAM	CLEAN		10/5/2017 16:46:00	86698-1.RAW	4:46:00 PM	45.36		X	37.5	0.220	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		10/5/2017 16:50:09	86699-1.RAW	4:50:09 PM	90.88		X	83.0	0.487	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		10/5/2017 16:54:17	86700-1.RAW	4:54:17 PM	36.25		X	28.4	0.167	0.000	ng/L	
Hg2600-2	DM2	SAM	1709562-03	100	10/5/2017 16:58:25	86701-1.RAW	4:58:25 PM	1789.75	3		1781.9	10.438	1043.826	ng/L	
Hg2600-2	DM2	SAM	F710213-MS1	400	10/5/2017 17:02:34	86702-1.RAW	5:02:34 PM	1125.78	3		1117.9	6.551	2620.488	ng/L	
Hg2600-2	DM2	SAM	F710213-MSD1	400	10/5/2017 17:06:42	86703-1.RAW	5:06:42 PM	1049.82	3		1042.0	6.106	2442.386	ng/L	
Hg2600-2	DM2	SAM	F710213-MS2	400	10/5/2017 17:10:51	86704-1.RAW	5:10:51 PM	1152.30	3		1144.5	6.707	2682.664	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	10/5/2017 17:14:59	86705-1.RAW	5:14:59 PM	860.56			852.7	4.998	4.998	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	10/5/2017 17:19:07	86706-1.RAW	5:19:07 PM	35.10			27.3	0.160	0.160	ng/L	
Hg2600-2	DM2	SAM	F710213-MSD2	400	10/5/2017 17:23:16	86707-1.RAW	5:23:16 PM	1094.84	3		1087.0	6.370	2547.954	ng/L	
Hg2600-2	DM2	SAM	1709562-01RE1	100	10/5/2017 17:27:24	86708-1.RAW	5:27:24 PM	1142.72	3		1134.9	6.646	664.575	ng/L	
Hg2600-2	DM2	SAM	1709562-02RE1	100	10/5/2017 17:31:33	86709-1.RAW	5:31:33 PM	1428.65	3		1420.8	8.322	832.169	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	10/5/2017 17:35:41	86710-1.RAW	5:35:41 PM	856.39			848.6	4.974	4.974	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	10/5/2017 17:39:49	86711-1.RAW	5:39:49 PM	31.37			23.5	0.138	0.138	ng/L	

TotalMercury EPA1631 Operat DM BlankS 7.8327 Calib Eqn: Conc = (Area-7.832 Run Date: 10/5/2017 Blank SD: 6.161659349
 Workst THg260i CalibFa 170.61 Status: QC Warnings:7/QC f Run Time: 14:43:04 Blank RSD%: 78.66576948
 Method ##### R: 0.9999 R2: 0.9998 CF SD: 11.20208047
 Descrip THg26002-171005-1 CF RSD%: 6.566069258

Sample/ID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ref)	Flags	RunCount
Clean				0.00	4.56					86606-1.RAW	10:26:03	778.72	Clean	OK	1
clean				0.00	0.02					86607-1.RAW	10:28:54	3.84	Clean	OK	1
ws				7.83	0.00					86608-1.RAW	10:33:02	7.43	Sample	OK	1
ws				7.83	0.00					86609-1.RAW	10:37:11	5.86	Sample	OK	1
ws				7.83	0.01					86610-1.RAW	10:41:19	9.17	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.08					86611-1.RAW	10:45:27	13.12	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.05					86612-1.RAW	10:49:36	9.32	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.01					86613-1.RAW	10:53:44	1.06	Sample	OK	1
SEQ-CAL1	A4		1	7.83	0.55			110.89		86614-1.RAW	10:57:53	102.43	Sample	OK	1
SEQ-CAL2	A5		1	7.83	1.01			101.18		86615-1.RAW	11:02:01	180.46	Sample	OK	1
SEQ-CAL3	A6		1	7.83	4.82			96.46		86616-1.RAW	11:06:10	830.62	Sample	OK	1
SEQ-CAL4	A7		1	7.83	18.89			94.43		86617-1.RAW	11:10:18	3229.82	Sample	OK	1
SEQ-CAL5	A8		1	7.83	38.82			97.04		86618-1.RAW	11:14:26	6630.09	Sample	OK	1
SEQ-ICV1	A9		1	7.83	4.96			99.21		86619-1.RAW	11:18:35	854.11	Sample	OK	1
F710195-BLK7	A10		20	7.83	3.74					86620-1.RAW	11:22:43	39.75	Sample	OK	1
F710195-BLK8	A11		20	7.83	1.31					86621-1.RAW	11:26:52	19.05	Sample	OK	1
F710195-BLK9	A12		20	7.83	0.26					86622-1.RAW	11:31:00	10.01	Sample	OK	1
1709614-11RE1	A13		400	7.83	971.25					86623-1.RAW	11:35:08	422.09	Sample	OK	1
1709614-12RE1	A14		400	7.83	659.82					86624-1.RAW	11:39:17	289.25	Sample	OK	1
1709614-13RE1	A15		400	7.83	3119.51					86625-1.RAW	11:43:25	1338.35	Sample	OK	1
1709614-14RE1	A16		400	7.83	685.69					86626-1.RAW	11:47:34	300.29	Sample	OK	1
F710195-DUP2	A17		400	7.83	1958.73					86627-1.RAW	11:51:42	843.26	Sample	OK	1
F710195-MS3	A18		400	7.83	6444.58			328.51		86628-1.RAW	11:55:51	2756.54	Sample	OK	1
F710195-MSD3	A19		400	7.83	6779.85					86629-1.RAW	11:59:59	2899.53	Sample	FB	1
SEQ-CCV1	A20		1	7.83	5.02			100.42		86630-1.RAW	12:04:07	864.43	Sample	OK	1
SEQ-CCB1	A21		1	7.83	0.17			0.00		86631-1.RAW	12:08:16	36.10	Sample	OK	1
F710195-MS4	B1		400	7.83	8430.09			202370.65		86632-1.RAW	12:12:24	3603.38	Sample	OK	1
F710195-MSD4	B2		400	7.83	8838.03					86633-1.RAW	12:16:33	3777.37	Sample	OK	1
F710193-BLK1	B3		100	7.83	30.66					86634-1.RAW	12:20:41	60.14	Sample	OK	1
F710193-BLK2	B4		100	7.83	10.54					86635-1.RAW	12:24:50	25.81	Sample	OK	1
F710193-BLK3	B5		100	7.83	9.46					86636-1.RAW	12:28:58	23.97	Sample	OK	1
F710193-BS1	B6		400	7.83	4671.70					86637-1.RAW	12:33:07	2000.38	Sample	OK	1
F710193-BSD1	B7		400	7.83	4627.11					86638-1.RAW	12:37:16	1981.36	Sample	OK	1
1709806-31	B8		100	7.83	34.67					86639-1.RAW	12:41:24	66.98	Sample	OK	1
1709806-32	B9		100	7.83	14.76					86640-1.RAW	12:45:33	33.01	Sample	OK	1
1709806-33	B10		100	7.83	14.86					86641-1.RAW	12:49:41	33.18	Sample	OK	1
SEQ-CCV2	B11		1	7.83	4.97			99.48		86642-1.RAW	12:53:50	856.41	Sample	OK	1
SEQ-CCB2	B12		1	7.83	0.09			0.00		86643-1.RAW	12:57:58	22.76	Sample	OK	1
F710195-DUP3	B13		400	7.83	2053.73					86644-1.RAW	13:02:07	883.78	Sample	OK	1
F710195-MS5	B14		400	7.83	8051.24			391.08		86645-1.RAW	13:06:15	3441.80	Sample	OK	1
F710195-MSD5	B15		400	7.83	8860.11					86646-1.RAW	13:10:23	3786.79	Sample	OK	1
1709806-34	B16		100	7.83	38.59					86647-1.RAW	13:14:32	73.67	Sample	OK	1
1709806-35	B17		100	7.83	21.33					86648-1.RAW	13:18:40	44.23	Sample	OK	1
1709806-36	B18		100	7.83	16.56					86649-1.RAW	13:22:49	36.08	Sample	OK	1
1709807-01	B19		100	7.83	96.54					86650-1.RAW	13:26:57	172.53	Sample	OK	1
1709807-02	B20		100	7.83	15.91					86651-1.RAW	13:31:06	34.97	Sample	OK	1
1709808-01	B21		100	7.83	13.09					86652-1.RAW	13:35:14	30.17	Sample	OK	1
1709806-31B	C1		100	7.83	93.69					86653-1.RAW	13:39:22	167.67	Sample	OK	1
SEQ-CCV3	C2		1	7.83	4.75			94.95		86654-1.RAW	13:43:31	817.78	Sample	OK	1
SEQ-CCB3	C3		1	7.83	0.10			0.00		86655-1.RAW	13:47:39	25.68	Sample	OK	1
1709806-32B	C4		100	7.83	9.73					86656-1.RAW	13:51:48	24.43	Sample	OK	1
1709806-33B	C5		100	7.83	6.18					86657-1.RAW	13:55:56	18.38	Sample	OK	1
1709806-34B	C6		100	7.83	7.67					86658-1.RAW	14:00:05	20.92	Sample	OK	1
1709806-35B	C7		100	7.83	9.66					86659-1.RAW	14:04:13	24.32	Sample	OK	1
1709806-36B	C8		100	7.83	2.15					86660-1.RAW	14:08:21	11.50	Sample	OK	1
1709807-01B	C9		100	7.83	3.49					86661-1.RAW	14:12:30	13.79	Sample	OK	1
1709807-02B	C10		100	7.83	11.11					86662-1.RAW	14:16:38	26.79	Sample	OK	1
1709808-01B	C11		100	7.83	7.43					86663-1.RAW	14:20:47	20.50	Sample	OK	1
F710193-DUP1	C12		100	7.83	95.98					86664-1.RAW	14:24:55	171.58	Sample	OK	1

F710193-MS1	C13	100	7.83	346.44	357.23	86665-1.RAW	14:29:03	598.88	Sample	OK	1
SEQ-CCV4	C14	1	7.83	4.97	99.49	86666-1.RAW	14:33:12	856.47	Sample	OK	1
SEQ-CCB4	C15	1	7.83	0.07	0.00	86667-1.RAW	14:37:20	20.16	Sample	OK	1
F710193-MSD1	C16	100	7.83	344.75		86668-1.RAW	14:41:29	596.00	Sample	OK	1
F710213-BLK1	C17	10	7.83	1.05		86669-1.RAW	14:47:13	25.76	Sample	OK	1
F710213-BLK2	C18	10	7.83	0.22		86670-1.RAW	14:51:21	11.66	Sample	OK	1
F710213-BS1	C19	400	7.83	211.78		86671-1.RAW	14:55:30	98.16	Sample	OK	1
F710213-BSD1	C20	400	7.83	229.29		86672-1.RAW	14:59:38	105.63	Sample	OK	1
1709558-05	C21	10	7.83	53.52		86673-1.RAW	15:03:47	920.88	Sample	OK	1
1709558-06	A1	10	7.83	59.80		86674-1.RAW	15:07:55	1028.02	Sample	OK	1
1709558-07	A2	10	7.83	57.32		86675-1.RAW	15:12:03	985.76	Sample	OK	1
1709558-08	A3	10	7.83	51.97		86676-1.RAW	15:16:12	894.48	Sample	OK	1
1709558-09	A4	10	7.83	48.17		86677-1.RAW	15:20:20	829.58	Sample	OK	1
SEQ-CCV5	A5	1	7.83	4.97	99.42	86678-1.RAW	15:24:29	855.91	Sample	OK	1
SEQ-CCB5	A6	1	7.83	0.07	0.00	86679-1.RAW	15:28:37	19.25	Sample	OK	1
F710213-BS2	A7	100	7.83	206.09		86680-1.RAW	15:32:46	359.44	Sample	OK	1
F710213-BSD2	A8	100	7.83	204.84		86681-1.RAW	15:36:54	357.30	Sample	OK	1
1709558-10	A9	10	7.83	46.94		86682-1.RAW	15:41:02	808.68	Sample	OK	1
1709558-11	A10	10	7.83	36.89		86683-1.RAW	15:45:11	637.16	Sample	OK	1
1709558-12	A11	10	7.83	38.29		86684-1.RAW	15:49:19	661.07	Sample	OK	1
1709558-13	A12	10	7.83	34.10		86685-1.RAW	15:53:28	589.62	Sample	OK	1
1709558-14	A13	10	7.83	39.50		86686-1.RAW	15:57:36	681.74	Sample	OK	1
1709558-15	A14	10	7.83	37.27		86687-1.RAW	16:01:44	643.74	Sample	OK	1
1709561-01	A15	10	7.83	314.68		86688-1.RAW	16:05:53	5376.42	Sample	OK	1
1709561-02	A16	10	7.83	106.98		86689-1.RAW	16:10:01	1832.91	Sample	OK	1
SEQ-CCV6	A17	1	7.83	5.10	101.91	86690-1.RAW	16:14:10	877.12	Sample	OK	1
SEQ-CCB6	A18	1	7.83	0.14	0.00	86691-1.RAW	16:18:18	32.39	Sample	OK	1
1709561-03	A19	10	7.83	31.46		86692-1.RAW	16:22:27	544.55	Sample	OK	1
1709561-04	A20	10	7.83	19.93		86693-1.RAW	16:26:35	347.80	Sample	OK	1
1709561-05	A21	10	7.83	25.49		86694-1.RAW	16:30:43	442.63	Sample	OK	1
1709561-06	B1	10	7.83	26.61		86695-1.RAW	16:34:52	461.81	Sample	OK	1
1709562-01	B2	10	7.83	641.25		86696-1.RAW	16:39:00	10947.93	Sample	OK	1
1709562-02	B3	10	7.83	793.62		86697-1.RAW	16:43:09	13547.40	Sample	OK	1
CLEAN			0.00	0.27		86698-1.RAW	16:46:00	45.36	Clean	OK	1
WS			7.83	0.49		86699-1.RAW	16:50:09	90.88	Sample	OK	1
WS			7.83	0.17		86700-1.RAW	16:54:17	36.25	Sample	OK	1
1709562-03	B4	100	7.83	1044.46		86701-1.RAW	16:58:25	1789.75	Sample	OK	1
F710213-MS1	B5	400	7.83	2621.13	250.71	86702-1.RAW	17:02:34	1125.78	Sample	OK	1
F710213-MSD1	B6	400	7.83	2443.02		86703-1.RAW	17:06:42	1049.82	Sample	OK	1
F710213-MS2	B7	400	7.83	2683.30	109.75	86704-1.RAW	17:10:51	1152.30	Sample	OK	1
SEQ-CCV7	B8	1	7.83	5.00	99.97	86705-1.RAW	17:14:59	860.56	Sample	OK	1
SEQ-CCB7	B9	1	7.83	0.16	0.00	86706-1.RAW	17:19:07	35.10	Sample	OK	1
F710213-MSD2	B10	400	7.83	2548.59		86707-1.RAW	17:23:16	1094.84	Sample	OK	1
1709562-01RE1	B13	100	7.83	665.21		86708-1.RAW	17:27:24	1142.72	Sample	OK	1
1709562-02RE1	B14	100	7.83	832.81		86709-1.RAW	17:31:33	1428.65	Sample	OK	1
SEQ-CCV8	B11	1	7.83	4.97	99.48	86710-1.RAW	17:35:41	856.39	Sample	OK	1
SEQ-CCB8	B12	1	7.83	0.14	0.00	86711-1.RAW	17:39:49	31.37	Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE
PEER-REVIEWED

7J05015

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R 10/5/17*
Analyzed: 10/5/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J05015-IBL1 ✓	QC	1			
7J05015-IBL2 ✓	QC	2			
7J05015-IBL3 ✓	QC	3			
7J05015-CAL1 ✓	QC	4	1704505		
7J05015-CAL2 ✓	QC	5	1704506		
7J05015-CAL3 ✓	QC	6	1704507		
7J05015-CAL4 ✓	QC	7	1704508		
7J05015-CAL5 ✓	QC	8	1704509		
7J05015-ICV1 ✓	QC	9	1705628		
7J05015-CCV1 ✓	QC	10	1705628		
7J05015-CCB1 ✓	QC	11			
7J05015-CCV2 ✓	QC	12	1705628		
7J05015-CCB2 ✓	QC	13			
7J05015-CCV3 ✓	QC	14	1705628		
7J05015-CCB3 ✓	QC	15			
7J05015-CCV4 ✓	QC	16	1705628		
7J05015-CCB4 ✓	QC	17			
F710213-BLK1 ✓	QC	18			
F710213-BLK2 ✓	QC	19			
F710213-BS1 ✓	QC	20			
F710213-BSD1 ✓	QC	21			
1709558-05 ✓	Hg-CVAFS-S-7474	22			
1709558-06 ✓	Hg-CVAFS-S-7474	23			
1709558-07 ✓	Hg-CVAFS-S-7474	24			
1709558-08 ✓	Hg-CVAFS-S-7474	25			
1709558-09 ✓	Hg-CVAFS-S-7474	26			
7J05015-CCV5 ✓	QC	27	1705628		
7J05015-CCB5 ✓	QC	28			
F710213-BS2 ✓	QC	29			
F710213-BSD2 ✓	QC	30			
1709558-10 ✓	Hg-CVAFS-S-7474	31			
1709558-11 ✓	Hg-CVAFS-S-7474	32			
1709558-12 ✓	Hg-CVAFS-S-7474	33			
1709558-13 ✓	Hg-CVAFS-S-7474	34			
1709558-14 ✓	Hg-CVAFS-S-7474	35			

ANALYSIS SEQUENCE

7J05015

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/5/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709558-15 ✓	Hg-CVAFS-S-7474	36			
1709561-01 ✓	Hg-CVAFS-S-7474	37			
1709561-02 ✓	Hg-CVAFS-S-7474	38			
7J05015-CCV6 ✓	QC	39	1705628	✓	
7J05015-CCB6 ✓	QC	40			
1709561-03 ✓	Hg-CVAFS-S-7474	41			
1709561-04 ✓	Hg-CVAFS-S-7474	42			
1709561-05 ✓	Hg-CVAFS-S-7474	43			
1709561-06 ✓	Hg-CVAFS-S-7474	44			
1709562-01 ✓	Hg-CVAFS-S-7474	45			
1709562-02 ✓	Hg-CVAFS-S-7474	46			
1709562-03 ✓	Hg-CVAFS-S-7474	47			
F710213-MS1 ✓	QC	48			
F710213-MSD1 ✓	QC	49			
F710213-MS2 ✓	QC	50			
7J05015-CCV7 ✓	QC	51	1705628	✓	
7J05015-CCB7 ✓	QC	52			
F710213-MSD2 ✓	QC	53			
1709562-01RE1 ✓	Hg-CVAFS-S-7474	54			Added 10/5/2017 by DM2
1709562-02RE1 ✓	Hg-CVAFS-S-7474	55			Added 10/5/2017 by DM2
7J05015-CCV8 ✓	QC	56	1705628	✓	
7J05015-CCB8 ✓	QC	57			

Don Mareson 10/5/17
 Samples Loaded By Date

Don Mareson 10/5/17
 Data Processed By Date

PREPARATION BENCH SHEET

F710213

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710213-BLK1	Blank	0.5	200					
F710213-BLK2	Blank	0.5	200					
F710213-BS1	Blank Spike	0.5	200	1705554	40			
F710213-BS2	LCS	0.5	200	1705554	40			
F710213-BSD1	Blank Spike	0.5	200	1705554	40			
F710213-BSD2	LCS Dup	0.5	200	1705554	40			
F710213-MS1	Matrix Spike [1709558-06]	0.5317	200	1705286	50			
F710213-MS2	Matrix Spike [1709561-01]	0.5499	200	1705286	50			
F710213-MSD1	Matrix Spike Dup [1709558-06]	0.5763	200	1705286	50			
F710213-MSD2	Matrix Spike Dup [1709561-01]	0.5743	200	1705286	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705286	THg 10,000ng/mL Primary Spiking Standard	30-Nov-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1705287	Omnitrace Hydrochloric Acid	30-Aug-20 00:00
			1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705679	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705900	7474 Potassium Bromate/Bromide Reagent	11-Oct-17 00:00

PREPARATION BENCH SHEET

F710213

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709558-05	OR-T1-C4-C(1)-17_SED_004-005CM	0.5614	200	-	-	-		
1709558-06	OR-T1-C4-C(1)-17_SED_005-006CM	0.5505	200	-	-	-		
1709558-07	OR-T1-C4-C(1)-17_SED_006-007CM	0.5716	200	-	-	-		
1709558-08	OR-T1-C4-C(1)-17_SED_007-008CM	0.5574	200	-	-	-		
1709558-09	OR-T1-C4-C(1)-17_SED_008-009CM	0.5276	200	-	-	-		
1709558-10	OR-T1-C4-C(1)-17_SED_009-010CM	0.5584	200	-	-	-		
1709558-11	OR-T1-C4-C(1)-17_SED_010-011CM	0.5209	200	-	-	-		
1709558-12	OR-T1-C4-C(1)-17_SED_011-012CM	0.5366	200	-	-	-		
1709558-13	OR-T1-C4-C(1)-17_SED_012-013CM	0.5216	200	-	-	-		
1709558-14	OR-T1-C4-C(1)-17_SED_013-014CM	0.5261	200	-	-	-		
1709558-15	OR-T1-C4-C(1)-17_SED_014-015CM	0.5742	200	-	-	-		
1709561-01	ON-19-01-A-17_SED_00-01	0.58	200	-	-	-		
1709561-02	ON-19-01-A-17_SED_01-03	0.5505	200	-	-	-		
1709561-03	ON-19-01-A-17_SED_03-05	0.5301	200	-	-	-		
1709561-04	ON-19-01-A-17_SED_05-07	0.5259	200	-	-	-		
1709561-05	ON-19-01-A-17_SED_07-10	0.5312	200	-	-	-		
1709561-06	ON-19-01-A-17_SED_10-15	0.5705	200	-	-	-		
1709562-01	MM-T2-C6-A-17_SED_040-045CM	0.5526	200	-	-	-		
1709562-01RE1	MM-T2-C6-A-17_SED_040-045CM	0.5526	200	-	-	-	Added 10/5/2017 by DM2	Added 10/5/2017 by DM2

Due Date: 10/19/2017

PREPARATION BENCH SHEET

F710213

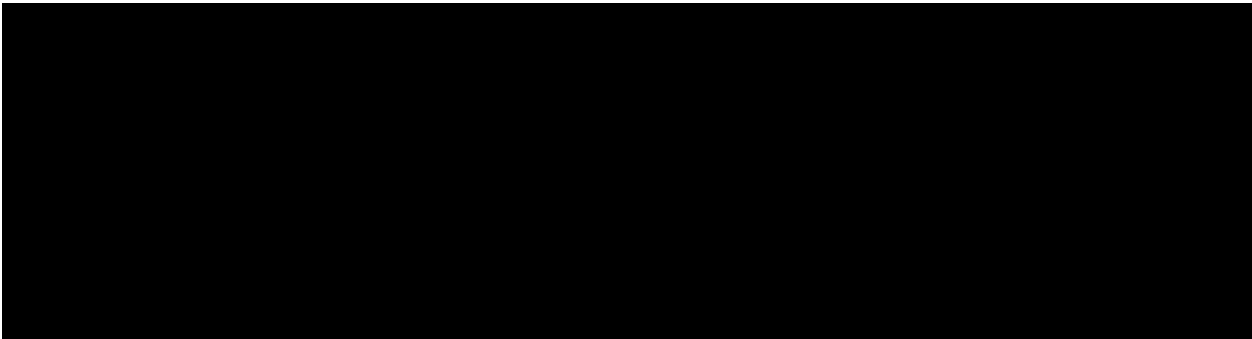
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 10/4/2017

1709562-02	MM-T2-C6-A-17_SED_045-050CM	0.5786	200	-	-	-		
1709562-02RE1	MM-T2-C6-A-17_SED_045-050CM	0.5786	200	-	-	-	Added 10/5/2017 by DM2	Added 10/5/2017 by DM2
1709562-03	MM-T2-C6-A-17_SED_050-055CM	0.5758	200	-	-	-		



PREPARATION BENCH SHEET

2600-2

10/5/17 DM

F710213

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710213-BLK1	Blank	0.5	200					10X -
F710213-BLK2	Blank	0.5	200					10X -
F710213-BS1	Blank Spike	0.5	200	1705554	40			400X -
F710213-BSD1	Blank Spike	0.5	200	1705554	40			400X -
F710213-MS1	Matrix Spike [1709558-06]	0.5317	200	1705286	50			400X -
F710213-MS2	Matrix Spike [1709561-01]	0.5499	200	1705286	50			400X -
F710213-MSD1	Matrix Spike Dup [1709558-06]	0.5763	200	1705286	50			400X -
F710213-MSD2	Matrix Spike Dup [1709561-01]	0.5743	200	1705286	50			400X -

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705286	THg 10,000ng/mL Primary Spiking Standard	30-Nov-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705287	Omnitrace Hydrochloric Acid	30-Aug-20 00:00
			1705679	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1705900	7474 Potassium Bromate/Bromide Reagent	11-Oct-17 00:00

BS2, BSD2 - 100X

1705610
1705611
1703152
1705779

PREPARATION BENCH SHEET

2600-2
10/5/17 DM

F710213

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709558-05	OR-T1-C4-C(1)-17_SED_004-005CM	0.5614	200	-	-	-		10X ✓
1709558-06	OR-T1-C4-C(1)-17_SED_005-006CM	0.5505	200	-	-	-		10X ✓
1709558-07	OR-T1-C4-C(1)-17_SED_006-007CM	0.5716	200	-	-	-		10X ✓
1709558-08	OR-T1-C4-C(1)-17_SED_007-008CM	0.5574	200	-	-	-		10X ✓
1709558-09	OR-T1-C4-C(1)-17_SED_008-009CM	0.5276	200	-	-	-		10X ✓
1709558-10	OR-T1-C4-C(1)-17_SED_009-010CM	0.5584	200	-	-	-		10X ✓
1709558-11	OR-T1-C4-C(1)-17_SED_010-011CM	0.5209	200	-	-	-		10X ✓
1709558-12	OR-T1-C4-C(1)-17_SED_011-012CM	0.5366	200	-	-	-		10X ✓
1709558-13	OR-T1-C4-C(1)-17_SED_012-013CM	0.5216	200	-	-	-		10X ✓
1709558-14	OR-T1-C4-C(1)-17_SED_013-014CM	0.5261	200	-	-	-		10X ✓
1709558-15	OR-T1-C4-C(1)-17_SED_014-015CM	0.5742	200	-	-	-		10X ✓
1709561-01	ON-19-01-A-17_SED_00-01	0.58	200	-	-	-		10X ✓
1709561-02	ON-19-01-A-17_SED_01-03	0.5505	200	-	-	-		10X ✓
1709561-03	ON-19-01-A-17_SED_03-05	0.5301	200	-	-	-		10X ✓
1709561-04	ON-19-01-A-17_SED_05-07	0.5259	200	-	-	-		10X ✓
1709561-05	ON-19-01-A-17_SED_07-10	0.5312	200	-	-	-		10X ✓
1709561-06	ON-19-01-A-17_SED_10-15	0.5705	200	-	-	-		10X ✓
1709562-01	MM-T2-C6-A-17_SED_040-045CM	0.5526	200	-	-	-		10X → 100X ✓
1709562-02	MM-T2-C6-A-17_SED_045-050CM	0.5786	200	-	-	-		10X → 100X ✓

Due Date: 10/19/2017

PREPARATION BENCH SHEET

F710213

Eurofins Frontier Global Sciences, Inc.

2600-2
10/5/17 DM

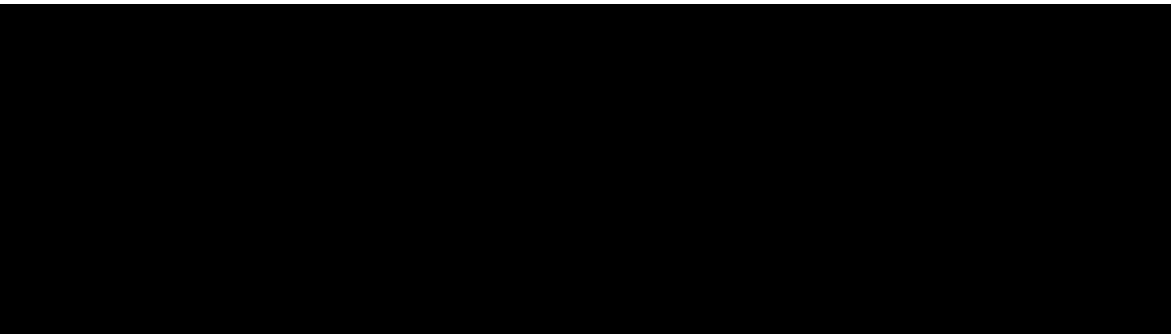
Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 10/4/2017

1709562-03	MM-T2-C6-A-17_SED_050-055CM	0.5758	200	-	-	-	10X 100X ✓
------------	-----------------------------	--------	-----	---	---	---	-----------------------

DM
10/5/17



10/4/17

Technician: Dmyer

Batch#: F7010213

Date: 10-4-17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA 7474 Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: N/A Calibrated? Yes No

*Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C

*Time in can't begin before target temperature is reached

Final vol.: 25 mL (LIMS ID: ROH20) Spike vol.: 40 µL (LIMS ID: 1705554)
 Spike Witness: DM 10/4/17 (initial and date)

HCl LIMS ID: 1705287 Pipette SN#: 0007852 Calibration Date: 10-2-17

HNO₃ LIMS ID: 1705679 Pipette SN#: 0007693 Calibration Date: 10-2-17

70/30 LIMS ID: N/A Dispenser #: 09N52469 Calibrated? Yes No

Other Acid LIMS ID: 1705900 Dispenser #: 12407691 Yes

Glass Vial # J264713-3025 Boiling Chip lot # 1704424 *Hotblock Position: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial # <u>10/4/17</u>	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F70213 Rk1	0.5051	23 8	1709561-04	0.5259	
2	F70213 Rk2	0.5577	24 9	1709561-05	0.5312	
3	F70213 MS1	0.5046	25 10	1709561-06	0.5705	
4	F70213 MS1	0.5138	26 11	1709562-01	0.5226	Comments
5	1709558-05A	0.5614	27 12	1709562-02	0.5786	F70213
6	1709558-06A	0.5505	28 13	1709562-03	0.5758	source
7	F70213 MS1	0.5317	29			MS1 MS1
8	F70213 MS1	0.5763	30			1709558-08
9	1709558-07A	0.5716	31			F70213
10	1709558-08A	0.5574	32			MS2 MS2
11	1709558-09A	0.5276	33			1709561-01
12	1709558-10A	0.5584	34			F70213
13	1709558-11A	0.5209	35			All spike
14	1709558-12A	0.5366	36			10,000 µg
15	1709558-13A	0.5216	37			= 50 µg 1705286
16	1709558-14A	0.5261	38			MS1 MS1 MS2
17	1709558-15A	0.5742	39			10/4/17
18	1709561-01A	0.5800	40			
19	F70213 MS2	0.5499	41			
20	F70213 MS2	0.5743	42			
21	1709561-02	0.5505	43			
22	1709561-03	0.5301	44			

Failing Data Report - 7J05015

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1709562-01	Hg-CVAFS-S-7474 ✓	232	3.62				ng/g						FAIL-OVER	PASS	E ✓
1709562-02	Hg-CVAFS-S-7474 ✓	274	3.46				ng/g						FAIL-OVER	PASS	E ✓

Don Moxam 10/5/17
 Analyst Reviewed By Date

P. M. 10/6/17
 Peer Reviewed By Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE
PEER-REVIEWED

7J05014

Instrument: Hg2600-2 ✓

Calibration ID: UNASSIGNED

INITIALS: *R 10/5/17*
Analyzed: 10/5/2017 ✓

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J05014-IBL1 ✓	QC	1			
7J05014-IBL2 ✓	QC	2			
7J05014-IBL3 ✓	QC	3			
7J05014-CAL1 ✓	QC	4	1704505 ✓		
7J05014-CAL2 ✓	QC	5	1704506 ✓		
7J05014-CAL3 ✓	QC	6	1704507 ✓		
7J05014-CAL4 ✓	QC	7	1704508 ✓		
7J05014-CAL5 ✓	QC	8	1704509 ✓		
7J05014-ICV1 ✓	QC	9	1705628 ✓		
7J05014-CCV1 ✓	QC	10	1705628 ✓		
7J05014-CCB1 ✓	QC	11			
F710193-BLK1 ✓	QC	12			
F710193-BLK2 ✓	QC	13			
F710193-BLK3 ✓	QC	14			
F710193-BS1 ✓	QC	15			
F710193-BSD1 ✓	QC	16			
1709806-31 ✓	Hg_FSTM_TRAP_A	17			
1709806-32 ✓	Hg_FSTM_TRAP_A	18			
1709806-33 ✓	Hg_FSTM_TRAP_A	19			
7J05014-CCV2 ✓	QC	20	1705628 ✓		
7J05014-CCB2 ✓	QC	21			
1709806-34 ✓	Hg_FSTM_TRAP_A	22			
1709806-35 ✓	Hg_FSTM_TRAP_A	23			
1709806-36 ✓	Hg_FSTM_TRAP_A	24			
1709807-01 ✓	Hg_FSTM_TRAP_A	25			
1709807-02 ✓	Hg_FSTM_TRAP_A	26			
1709808-01 ✓	Hg_FSTM_TRAP_A	27			
7J05014-CCV3 ✓	QC	28	1705628 ✓		
7J05014-CCB3 ✓	QC	29			
F710193-DUP1 ✓	QC	30			
F710193-MS1 ✓	QC	31			
7J05014-CCV4 ✓	QC	32	1705628 ✓		
7J05014-CCB4 ✓	QC	33			
F710193-MSD1 ✓	QC	34			
7J05014-CCV5 ✓	QC	35	1705628 ✓		

ANALYSIS SEQUENCE

7J05014

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/5/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J05014-CCB5 ✓	QC	36			

 Dan Maxam 10/5/17
Samples Loaded By Date

 Dan Maxam 10/5/17
Data Processed By Date

PREPARATION BENCH SHEET

F710193

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710193-BLK1	Blank	1	40					
F710193-BLK2	Blank	1	40					
F710193-BLK3	Blank	1	40					
F710193-BS1	LCS	1	40	1705554	200			
F710193-BSD1	LCS Dup	1	40	1705554	200			
F710193-DUP1	Duplicate [1709807-01] ✓	1	40					
F710193-MS1	Matrix Spike [1709807-01] ✓	0.0125	0.5	1704483	125 ✓			[Spk] 1 Trap->40mL; 20mL->20mL; Spiked 0.5mL ✓
F710193-MSD1	Matrix Spike Dup [1709807-01] ✓	0.0125	0.5	1704483	125			[Spk] 1 Trap->40mL; 20mL->20mL; Spiked 0.5mL ✓

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704483	THg 1ng/mL Calibration Standard	24-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710193

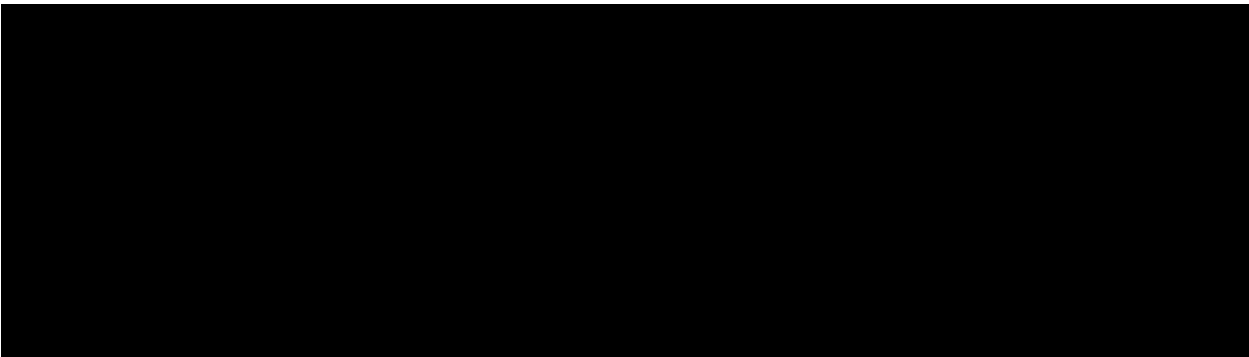
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709806-31	HGS1717-7-13	1	40	-	-	-		
1709806-32	HGS1717-7-14	1	40	-	-	-		
1709806-33	HGS1717-7-15	1	40	-	-	-		
1709806-34	HGS1717-7-16	1	40	-	-	-		
1709806-35	HGS1717-7-17	1	40	-	-	-		
1709806-36	HGS1717-7-18	1	40	-	-	-		
1709807-01	HGS1716-6-6	1	40	-	-	-		
1709807-02	HGS1716-7-6	1	40	-	-	-		
1709808-01	HGS1717-BM-6-7	1	40	-	-	-		



PREPARATION BENCH SHEET

2600-2
10/5/17 DM

F710193

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710193-BLK1	Blank	1	40					100X ✓
F710193-BLK2	Blank	1	40					100X ✓
F710193-BLK3	Blank	1	40					100X ✓
F710193-BS1	LCS	1	40	1705554	200			400X ✓
F710193-BSD1	LCS Dup	1	40	1705554	200			400X ✓
F710193-DUP1	Duplicate 1709807-01	1	40					100X ✓
F710193-MS1	Matrix Spike 1709807-01	1	40	1704483	125			100X ✓
F710193-MSD1	Matrix Spike Dup 1709807-01	1	40	1704483	125			100X ✓

Standard ID(s): 1705554
Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration: 18-Mar-18 00:00

Reagent ID(s): 1705859, 1705915
Description: 70/30 Digestion Acid, 5% BrCl

Expiration: 28-Mar-18 00:00, 14-Mar-18 00:00

1705610
1705611
1705779
1703182

Due Date: 10/5/2017

PREPARATION BENCH SHEET

2600-2
10/5/17 DM

F710193

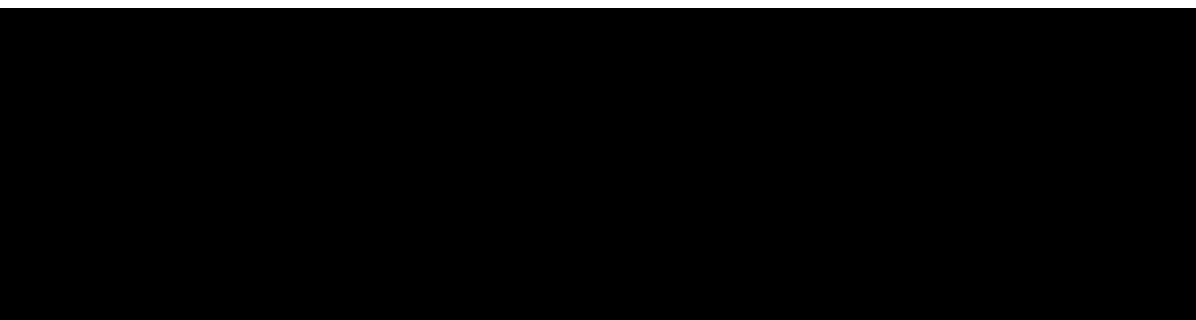
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments
1709806-31	HGS1717-7-13	1	40	-	-	-	100X ✓	100X ✓
1709806-32	HGS1717-7-14	1	40	-	-	-	100X ✓	100X ✓
1709806-33	HGS1717-7-15	1	40	-	-	-	100X ✓	100X ✓
1709806-34	HGS1717-7-16	1	40	-	-	-	100X ✓	100X ✓
1709806-35	HGS1717-7-17	1	40	-	-	-	100X ✓	100X ✓
1709806-36	HGS1717-7-18	1	40	-	-	-	100X ✓	100X ✓
1709807-01	HGS1716-6-6	1	40	-	-	-	100X ✓	100X ✓
1709807-02	HGS1716-7-6	1	40	-	-	-	100X ✓	100X ✓
1709808-01	HGS1717-BM-6-7	1	40	-	-	-	100X ✓	100X ✓



Trap Digestions

Name: CLC, BC Date: 10/3/17 Batch ID: F710193
 Work Order(s): 1709806, 1709807, 1709808 Analysis: Total Hg Other _____
 Sample Matrix: FSTM KCl PHg Plug Other _____
 Prep: 70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)
 start time: 1500, start temp (°C): 50.0 (raw) 57.8 (w/ CF)
 end time: 1700, end temp (°C): 62.0 (raw) 61.8 (w/ CF) Timer? Yes No
 5% BrCl Oxidation (EFGS-031) start time: _____ (allow samples to sit for at least 4 hr before analysis)
 Other _____

Sample ID Number	Digest vol. (mL)
F710193-BLK1	40
F710193-BLK2	40
F710193-BLK3	40
F710193-BSD1	40
F710193-BSD1	40
1709806-31A	40
1709806-31B	40
1709806-32A	40
1709806-32B	40
1709806-33A	40
1709806-33B	40
1709806-34A	40
1709806-34B	40
1709806-35A	40
1709806-35B	40
1709806-36A	40
1709806-36B	40
1709807-01A	40
1709807-01B	40
1709807-02A	40
1709807-02B	40
1709808-01A	40
1709808-01B	40

Spike ID: 1705554
 Spike Amount (µL): 200
 Spike Witness: RL 10/4/17
 BrCl ID: 1705915
 70/30: 1705859
 Other: NA
 Thermometer: 14545
 Dispensers: 02K27494
 04N73497
 Other 15406623
 Pipette ID: MU11619
 Cal. Date: 10-2-17
 Vials and Jars lot# 80068744
 Trap Material Lot#: 1704097
 Loader Mass Verified: Yes No

Comments:
~~SPM~~ by CLC 10/3/17
CLC 10/5/17

Failing Data Report - 7J05014

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Den Maxam 10/5/17
Analyst Reviewed By Date

[Signature] 10/5/17
Peer Reviewed By Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE
PEER-REVIEWED

7J05013

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *pc* 10/6/17 Analyzed: 10/5/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J05013-IBL1 ✓	QC	1			
7J05013-IBL2 ✓	QC	2			
7J05013-IBL3 ✓	QC	3			
7J05013-CAL1 ✓	QC	4	1704505	✓	
7J05013-CAL2 ✓	QC	5	1704506	✓	
7J05013-CAL3 ✓	QC	6	1704507	✓	
7J05013-CAL4 ✓	QC	7	1704508	✓	
7J05013-CAL5 ✓	QC	8	1704509	✓	
7J05013-ICV1 ✓	QC	9	1705628	✓	
F710195-BLK7 ✓	QC	10			
F710195-BLK8 ✓	QC	11			
F710195-BLK9 ✓	QC	12			
1709614-11RE1 ✓	Hg-CVAFS-T-7030	13			Added 10/5/2017 by DM2
1709614-12RE1 ✓	Hg-CVAFS-T-7030	14			Added 10/5/2017 by DM2
1709614-13RE1 ✓	Hg-CVAFS-T-7030	15			Added 10/5/2017 by DM2
1709614-14RE1 ✓	Hg-CVAFS-T-7030	16			Added 10/5/2017 by DM2
F710195-DUP2 ✓	QC	17			
F710195-MS3 ✓	QC	18			
F710195-MSD3 ✓	QC	19			
7J05013-CCV1 ✓	QC	20	1705628	✓	
7J05013-CCB1 ✓	QC	21			
F710195-MS4 ✓	QC	22			
F710195-MSD4 ✓	QC	23			
7J05013-CCV2 ✓	QC	24	1705628	✓	
7J05013-CCB2 ✓	QC	25			
F710195-DUP3 ✓	QC	26			
F710195-MS5 ✓	QC	27			
F710195-MSD5 ✓	QC	28			
7J05013-CCV3 ✓	QC	29	1705628	✓	
7J05013-CCB3 ✓	QC	30			

Don M. Pearson 10/5/17
 Samples Loaded By _____ Date _____

Don M. Pearson 10/5/17
 Data Processed By _____ Date _____

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710195-BLK1	Blank	0.25	20					
F710195-BLK2	Blank	0.25	20					
F710195-BLK3	Blank	0.25	20					
F710195-BLK4	Blank	0.25	20					Pre-homogenization Blank for 1709614
F710195-BLK5	Blank	0.279	20					Post-homogenization Blank for 1709614
F710195-BLK6	Blank	0.25	20					
F710195-BLK7	Blank	0.25	20					
F710195-BLK8	Blank	0.25	20					
F710195-BLK9	Blank	0.25	20					
F710195-BS1	LCS	0.25	20	1704421	20			
F710195-BS2	LCS	0.1279	20	1705412	127.9			
F710195-BSD1	LCS Dup	0.25	20	1704421	20			
F710195-DUP1	Duplicate [1709612-05]	0.256	20					
F710195-DUP2	Duplicate [1709612-05]	0.256	20					
F710195-DUP3	Duplicate [1709612-05]	0.256	20					
F710195-MS1	Matrix Spike [1709612-05]	0.255	20	1705554	100			
F710195-MS2	Matrix Spike [1709613-05]	0.251	20	1705554	100			
F710195-MS3	Matrix Spike [1709612-05]	0.255	20	1705554	100			
F710195-MS4	Matrix Spike [1709613-05]	0.251	20	1705554	100			
F710195-MS5	Matrix Spike [1709613-05]	0.251	20	1705554	100			
F710195-MSD1	Matrix Spike Dup [1709612-05]	0.27	20	1705554	100			
F710195-MSD2	Matrix Spike Dup [1709613-05]	0.277	20	1705554	100			
F710195-MSD3	Matrix Spike Dup [1709612-05]	0.27	20	1705554	100			

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

F710195-MSD4	Matrix Spike Dup [1709613-05]	0.277	20	1705554	100			
F710195-MSD5	Matrix Spike Dup [1709613-05]	0.277	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705823	5% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00

PREPARATION BENCH SHEET

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709612-05	BO-04_17ET026_092017_TOM_05_WB	0.256	20	-	-	-	Sample contains enough volume for QC	
1709613-05	OB-05_17ET009_091717_TOM_05_WB	0.252	20	-	-	-	Sample contains enough volume for QC	
1709613-15	OB-05_17ET014_091717_TOM_15_WB	0.269	20	-	-	-		
1709613-16	OB-05_17ET002_091817_TOM_16_WB	0.276	20	-	-	-		
1709613-17	OB-05_17ET003_091817_TOM_17_WB	0.27	20	-	-	-		
1709613-18	OB-05_17ET003_091817_TOM_18_WB	0.258	20	-	-	-		
1709613-19	OB-05_17ET005_091817_TOM_19_WB	0.26	20	-	-	-		
1709613-20	OB-05_17ET008_091817_TOM_20_WB	0.275	20	-	-	-		
1709614-03	OB-01_17ET001_091617_TOM_03_WB	0.263	20	-	-	-		
1709614-04	OB-01_17ET001_091617_TOM_04_WB	0.268	20	-	-	-		
1709614-05	OB-01_17ET001_091617_TOM_05_WB	0.277	20	-	-	-		
1709614-06	OB-01_17ET001_091617_TOM_06_WB	0.264	20	-	-	-		
1709614-07	OB-01_17ET001_091617_TOM_07_WB	0.262	20	-	-	-		
1709614-08	OB-01_17ET001_091617_TOM_08_WB	0.269	20	-	-	-		
1709614-09	OB-01_17ET001_091617_TOM_09_WB	0.273	20	-	-	-		
1709614-10	OB-01_17ET002_091617_TOM_10_WB	0.262	20	-	-	-		
1709614-11	OB-01_17ET002_091617_TOM_11_WB	0.277	20	-	-	-		
1709614-11RE1	OB-01_17ET002_091617_TOM_11_WB	0.277	20	-	-	-	Added 10/5/2017 by DM2	Added 10/5/2017 by DM2
1709614-12	OB-01_17ET002_091617_TOM_12_WB	0.265	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710195

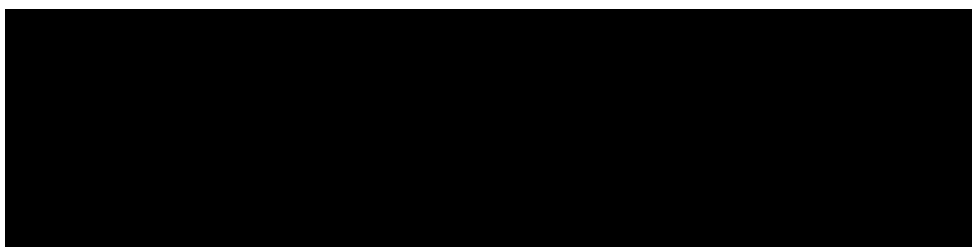
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709614-12RE1	OB-01_17ET002_091617_TOM_12_WB	0.265	20	-	-	-	Added 10/5/2017 by DM2	Added 10/5/2017 by DM2
1709614-13	OB-01_17ET003_091617_TOM_13_WB	0.27	20	-	-	-		
1709614-13RE1	OB-01_17ET003_091617_TOM_13_WB	0.27	20	-	-	-	Added 10/5/2017 by DM2	Added 10/5/2017 by DM2
1709614-14	OB-01_17ET004_091617_TOM_14_WB	0.273	20	-	-	-		
1709614-14RE1	OB-01_17ET004_091617_TOM_14_WB	0.273	20	-	-	-	Added 10/5/2017 by DM2	Added 10/5/2017 by DM2



PREPARATION BENCH SHEET

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl ₂ THg reductant	13-Mar-18 00:00
			1705823	5% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00

PREPARATION BENCH SHEET

2600-2
10/5/17 DM

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710195-BLK1	Blank	0.25	20					
F710195-BLK2	Blank	0.25	20					
F710195-BLK3	Blank	0.25	20					
F710195-BLK4	Blank	0.25	20					Pre-homogenization Blank for 1709614
F710195-BLK5	Blank	0.279	20					Post-homogenization Blank for 1709614
F710195-BLK6	Blank	0.25	20					
F710195-BLK7	Blank	0.25	20					20X
F710195-BLK8	Blank	0.25	20					20X
F710195-BLK9	Blank	0.25	20					20X
F710195-BS1	LCS	0.25	20	1704421	20			
F710195-BS2	LCS	0.1279	20	1705412	127.9			
F710195-BSD1	LCS Dup	0.25	20	1704421	20			
F710195-DUP1	Duplicate [1709612-05]	0.256	20					
F710195-DUP2	Duplicate [1709612-05]	0.256	20					400X
F710195-MS1	Matrix Spike [1709612-05]	0.255	20	1705554	100			
F710195-MS2	Matrix Spike [1709613-05]	0.251	20	1705554	100			
F710195-MS3	Matrix Spike [1709612-05]	0.255	20	1705554	100			400X
F710195-MS4	Matrix Spike [1709613-05]	0.251	20	1705554	100			400X
F710195-MSD1	Matrix Spike Dup [1709612-05]	0.27	20	1705554	100			
F710195-MSD2	Matrix Spike Dup [1709613-05]	0.277	20	1705554	100			
F710195-MSD3	Matrix Spike Dup [1709612-05]	0.27	20	1705554	100			400X
F710195-MSD4	Matrix Spike Dup [1709613-05]	0.277	20	1705554	100			400X

DUP2 2 run of DUP1

MS5, MS05 2 run of MS4, MS04

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2LDD-2
10/5/17 DM

F710195

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709612-05	BO-04_17ET026_092017_TOM_05_WB	0.256	20	-	-	-	Sample contains enough volume for QC	
1709613-05	OB-05_17ET009_091717_TOM_05_WB	0.252	20	-	-	-	Sample contains enough volume for QC	
1709613-15	OB-05_17ET014_091717_TOM_15_WB	0.269	20	-	-	-		
1709613-16	OB-05_17ET002_091817_TOM_16_WB	0.276	20	-	-	-		
1709613-17	OB-05_17ET003_091817_TOM_17_WB	0.27	20	-	-	-		
1709613-18	OB-05_17ET003_091817_TOM_18_WB	0.258	20	-	-	-		
1709613-19	OB-05_17ET005_091817_TOM_19_WB	0.26	20	-	-	-		
1709613-20	OB-05_17ET008_091817_TOM_20_WB	0.275	20	-	-	-		
1709614-03	OB-01_17ET001_091617_TOM_03_WB	0.263	20	-	-	-		
1709614-04	OB-01_17ET001_091617_TOM_04_WB	0.268	20	-	-	-		
1709614-05	OB-01_17ET001_091617_TOM_05_WB	0.277	20	-	-	-		
1709614-06	OB-01_17ET001_091617_TOM_06_WB	0.264	20	-	-	-		
1709614-07	OB-01_17ET001_091617_TOM_07_WB	0.262	20	-	-	-		
1709614-08	OB-01_17ET001_091617_TOM_08_WB	0.269	20	-	-	-		
1709614-09	OB-01_17ET001_091617_TOM_09_WB	0.273	20	-	-	-		
1709614-10	OB-01_17ET002_091617_TOM_10_WB	0.262	20	-	-	-		
1709614-11	OB-01_17ET002_091617_TOM_11_WB	0.277	20	-	-	-		
1709614-11RE1	OB-01_17ET002_091617_TOM_11_WB	0.277	20	-	-	-	Added 10/5/2017 by DM2	Added 10/5/2017 by DM2 400X
1709614-12	OB-01_17ET002_091617_TOM_12_WB	0.265	20	-	-	-		

PREPARATION BENCH SHEET

2600-2
10/5/17 DM

F710195

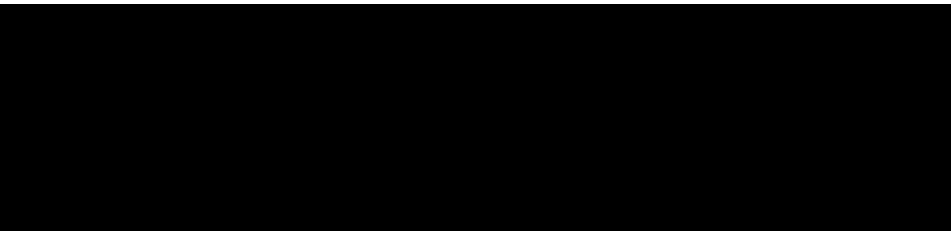
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709614-12RE1	OB-01_17ET002_091617_TOM_12_WB	0.265	20	-	-	-	Added 10/5/2017 by DM2	Added 10/5/2017 by DM2	400X
1709614-13	OB-01_17ET003_091617_TOM_13_WB	0.27	20	-	-	-			
1709614-13RE1	OB-01_17ET003_091617_TOM_13_WB	0.27	20	-	-	-	Added 10/5/2017 by DM2	Added 10/5/2017 by DM2	400X
1709614-14	OB-01_17ET004_091617_TOM_14_WB	0.273	20	-	-	-			
1709614-14RE1	OB-01_17ET004_091617_TOM_14_WB	0.273	20	-	-	-	Added 10/5/2017 by DM2	Added 10/5/2017 by DM2	400X



Failing Data Report - 7J05013

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F710195-DUP2	Hg-CVAFS-T-7030	152.9	15.6	199.1	199.1		ng/g				26.2	24.00	PASS-OVER	FAIL-DUP	QR-07
F710195-MS5	Hg-CVAFS-T-7030	641.4	15.9		378.8	398.41	ng/g	65.9	71.00	125.00			PASS-OVER	FAIL-MS	DM-087

Don M... 10/5/17
 Analyst Reviewed By Date

[Signature] 10/6/17
 Peer Reviewed By Date

DM
 12/5/17

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	<u>DON MORAN</u>	Sequence(s) #:	<u>7J05013, 7J05014, 7J05015</u>
Reviewer:	<u>R 10/5/17</u>	Dataset ID(s):	<u>THG26002-171005-1</u>
Date:	<u>10/5/2017</u>	WO (s) #:	<u>VARIOUS</u>
Batch #(s):	<u>F710193, F710195, F710213</u>		

• Select the correct preparation method.

Analyte	Prep Method		Matrix
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg0	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: DM

Reviewer Initials: R 10/5/17

- | | | | |
|---|---|--|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?
Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Check 5% of transcription from Instrument print-out and Excel file
Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel?
50 ml / aliquot = Excel dilution value | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J05013, 7J05014, 7J05015
Reviewer: 0 <i>R 10/5/17</i>	Dataset ID(s): THG26002-171005-1
Date: 10/5/2017	WO (s) #: VARIOUS
Batch #(s): F710193, F710195, F710213	0

Analyst Initials DM

Reviewer Initials R 10/5/17

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: SEE FAILING DATA REPORT | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J05013, 7J05014, 7J05015
Reviewer: 0 <i>RM 10/5/17</i>	Dataset ID(s): THG26002-171005-1
Date: 10/5/2017	WO (s) #: VARIOUS
Batch #(s): F710193, F710195, F710213	0

Analyst Initials DM

Reviewer Initials RM 10/5/17

20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? YES NO
- Comments: _____
21. Are all samples within instrument calibration range? (or at minimum dilution size) PASS FAIL
- Comments: _____
22. Are the samples run at the correct dilution level for the method? YES NO
- Comments: _____
23. Dissolved < Total (if applicable) YES NO N/A
- Comments: _____
24. Effluent < Influent (visually confirm if needed) YES NO N/A
- Comments: _____
25. Are re-runs noted with reason? YES NO N/A
- Comments: _____
26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? YES NO N/A
- Comments: _____
27. Is the B trap <5% A Traps YES NO N/A
RM 10/5/17
- Comments: _____
28. Are spiked trap recoveries 75-125% of true value? YES NO N/A
- Comments: _____
29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
- Comments: _____
30. Have re-extracts been created for non-reportable samples? YES NO N/A
31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. YES NO N/A
32. Does the data set need scanning? YES NO N/A
33. Does the dataset have an LOQ/LOQ or DOC? YES NO N/A
34. Water samples: has the preservation log been included in dataset for final volume verification? YES NO N/A
35. Water samples-is the final volume correct in the sequence? YES NO N/A
- Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs**
36. Date of analyst IDOC/CDOC: 12/15/16, 11/23/16, 12/1/16 IDOC/CDOC within last 12 months? YES NO
37. Date of analyst's SOP reading for method: 5/20/16 Current SOP revision read? YES NO
38. Date of LOD: 7/28/17, 5/9/17, 4/25/17 LOD within last 3 months? YES NO
39. Date of LOQ: 7/28/17, 5/9/17, 4/25/17 LOQ within last 3 months? YES NO

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.



Frontier Global Sciences

THg26002-171006-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 06, 2017

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7J09009, 7J09010

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	101.15 units	202.30	94.85 units	189.71	104.0 %Rec
SEQ-CAL2	1	1.00 ng/L	193.78 units	193.78	187.48 units	187.48	102.7 %Rec
SEQ-CAL3	1	5.00 ng/L	891.63 units	178.33	885.33 units	177.07	97.0 %Rec
SEQ-CAL4	1	20.00 ng/L	3568.39 units	178.42	3562.09 units	178.10	97.6 %Rec
SEQ-CAL5	1	40.00 ng/L	7206.72 units	180.17	7200.42 units	180.01	98.6 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
182.47	+/- 5.74	3.1% RSD	186.60

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.30 units	±4.41	0.03 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.030 ng/L	±0.017
BLK	2	1	0.520 ng/L	
BLK	3	3	1.995 ng/L	±0.479
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: DM 10/9/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-IBL1	1	10/6/2017 8:11:31	86717-1.RAW	8:11:31 AM	1.21			-5.1	-0.028	-0.028	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	10/6/2017 8:15:39	86718-1.RAW	8:15:39 AM	9.10			2.8	0.015	0.015	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	10/6/2017 8:19:48	86719-1.RAW	8:19:48 AM	8.58			2.3	0.013	0.013	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	10/6/2017 8:23:56	86720-1.RAW	8:23:56 AM	101.15			94.9	0.520	0.520	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	10/6/2017 8:28:05	86721-1.RAW	8:28:05 AM	193.78			187.5	1.027	1.027	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	10/6/2017 8:32:13	86722-1.RAW	8:32:13 AM	891.63			885.3	4.852	4.852	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	10/6/2017 8:36:22	86723-1.RAW	8:36:22 AM	3568.39			3562.1	19.521	19.521	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	10/6/2017 8:40:30	86724-1.RAW	8:40:30 AM	7206.72			7200.4	39.460	39.460	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	10/6/2017 8:44:38	86725-1.RAW	8:44:38 AM	891.20			884.9	4.849	4.849	ng/L	
Hg2600-2	BC	SAM	ws		10/6/2017 9:04:31	86726-1.RAW	9:04:31 AM	71.78		x	65.5	0.359	0.000	ng/L	
Hg2600-2	BC	BLK	F710248-BLK1	1	10/6/2017 9:08:40	86727-1.RAW	9:08:40 AM	10.63	1		4.3	0.024	0.024	ng/L	
Hg2600-2	BC	BLK	F710248-BLK2	1	10/6/2017 9:12:48	86728-1.RAW	9:12:48 AM	15.15	1		8.9	0.049	0.049	ng/L	
Hg2600-2	BC	BLK	F710248-BLK3	1	10/6/2017 9:16:56	86729-1.RAW	9:16:56 AM	9.35	1		3.1	0.017	0.017	ng/L	
Hg2600-2	BC	BLK	F710248-BLK4	10	10/6/2017 9:21:05	86730-1.RAW	9:21:05 AM	15.78	2		9.5	0.052	0.520	ng/L	
Hg2600-2	BC	SAM	F710248-BS1	1	10/6/2017 9:25:13	86731-1.RAW	9:25:13 AM	2765.38	1		2759.1	15.091	15.091	ng/L	
Hg2600-2	BC	SAM	F710248-BSD1	1	10/6/2017 9:29:22	86732-1.RAW	9:29:22 AM	2744.00	1		2737.7	14.974	14.974	ng/L	
Hg2600-2	BC	SAM	1709709-01	1	10/6/2017 9:33:30	86733-1.RAW	9:33:30 AM	27.56	1		21.3	0.087	0.087	ng/L	
Hg2600-2	BC	SAM	1709709-02	1	10/6/2017 9:37:39	86734-1.RAW	9:37:39 AM	27.79	1		21.5	0.088	0.088	ng/L	
Hg2600-2	BC	SAM	1709709-03	1	10/6/2017 9:41:47	86735-1.RAW	9:41:47 AM	327.18	1		320.9	1.729	1.729	ng/L	
Hg2600-2	BC	SAM	1709709-04	1	10/6/2017 9:45:55	86736-1.RAW	9:45:55 AM	159.41	1		153.1	0.809	0.809	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	10/6/2017 9:50:04	86737-1.RAW	9:50:04 AM	872.91			866.6	4.749	4.749	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	10/6/2017 9:54:12	86738-1.RAW	9:54:12 AM	19.13			12.8	0.070	0.070	ng/L	
Hg2600-2	BC	SAM	1709709-05	1	10/6/2017 9:58:21	86739-1.RAW	9:58:21 AM	183.70	1		177.4	0.943	0.943	ng/L	
Hg2600-2	BC	SAM	1709709-06	1	10/6/2017 10:02:29	86740-1.RAW	10:02:29 AM	105.44	1		99.1	0.514	0.514	ng/L	
Hg2600-2	BC	SAM	1710042-01	1	10/6/2017 10:06:38	86741-1.RAW	10:06:38 AM	13.58	1		7.3	0.010	0.010	ng/L	
Hg2600-2	BC	SAM	1710142-01	1	10/6/2017 10:10:46	86742-1.RAW	10:10:46 AM	402.56	1		396.3	2.142	2.142	ng/L	
Hg2600-2	BC	SAM	1710142-02	1	10/6/2017 10:14:54	86743-1.RAW	10:14:54 AM	55.33	1		49.0	0.239	0.239	ng/L	
Hg2600-2	BC	SAM	1710142-03	1	10/6/2017 10:19:03	86744-1.RAW	10:19:03 AM	423.00	1		416.7	2.254	2.254	ng/L	
Hg2600-2	BC	SAM	1710142-04	1	10/6/2017 10:23:11	86745-1.RAW	10:23:11 AM	52.92	1		46.6	0.226	0.226	ng/L	
Hg2600-2	BC	SAM	1710142-05	10	10/6/2017 10:27:20	86746-1.RAW	10:27:20 AM	203.49	2		197.2	1.029	10.287	ng/L	
Hg2600-2	BC	SAM	1710142-06	1	10/6/2017 10:31:28	86747-1.RAW	10:31:28 AM	53.23	1		46.9	0.228	0.228	ng/L	
Hg2600-2	BC	SAM	1710143-01	1	10/6/2017 10:35:36	86748-1.RAW	10:35:36 AM	107.58	1		101.3	0.525	0.525	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	10/6/2017 10:39:45	86749-1.RAW	10:39:45 AM	873.27			867.0	4.751	4.751	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	10/6/2017 10:43:53	86750-1.RAW	10:43:53 AM	16.56			10.3	0.056	0.056	ng/L	
Hg2600-2	BC	SAM	1710143-02	1	10/6/2017 10:48:02	86751-1.RAW	10:48:02 AM	102.18	1		95.9	0.496	0.496	ng/L	
Hg2600-2	BC	SAM	1710143-03	1	10/6/2017 10:52:10	86752-1.RAW	10:52:10 AM	115.58	1		109.3	0.569	0.569	ng/L	
Hg2600-2	BC	SAM	1710143-04	1	10/6/2017 10:56:18	86753-1.RAW	10:56:18 AM	155.17	1		148.9	0.786	0.786	ng/L	
Hg2600-2	BC	SAM	1710143-05	1	10/6/2017 11:00:27	86754-1.RAW	11:00:27 AM	225.21	1		218.9	1.170	1.170	ng/L	
Hg2600-2	BC	SAM	1710143-06	1	10/6/2017 11:04:35	86755-1.RAW	11:04:35 AM	89.74	1		83.4	0.428	0.428	ng/L	
Hg2600-2	BC	SAM	F710248-DUP1	1	10/6/2017 11:08:44	86756-1.RAW	11:08:44 AM	323.94	1		317.6	1.711	1.711	ng/L	
Hg2600-2	BC	SAM	F710248-MS1	1	10/6/2017 11:12:52	86757-1.RAW	11:12:52 AM	1160.78	1		1154.5	6.297	6.297	ng/L	
Hg2600-2	BC	SAM	F710248-MSD1	1	10/6/2017 11:17:01	86758-1.RAW	11:17:01 AM	1157.67	1		1151.4	6.280	6.280	ng/L	
Hg2600-2	BC	SAM	F710248-MS2	1	10/6/2017 11:21:09	86759-1.RAW	11:21:09 AM	1277.71	1		1271.4	6.938	6.938	ng/L	
Hg2600-2	BC	SAM	F710248-MSD2	1	10/6/2017 11:25:17	86760-1.RAW	11:25:17 AM	1246.41	1		1240.1	6.766	6.766	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	10/6/2017 11:29:26	86761-1.RAW	11:29:26 AM	836.69			830.4	4.551	4.551	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	10/6/2017 11:33:34	86762-1.RAW	11:33:34 AM	16.57			10.3	0.056	0.056	ng/L	
Hg2600-2	BC	SAM	EFGS06396 TV 50ng	100	10/6/2017 11:37:43	86763-1.RAW	11:37:43 AM	806.07	x		799.8	4.383	438.293	ng/L	
Hg2600-2	BC	SAM	EFGS17786 TV 50ng	100	10/6/2017 11:41:51	86764-1.RAW	11:41:51 AM	840.87	x		834.6	4.574	457.365	ng/L	
Hg2600-2	BC	SAM	EFGS18673 TV 100ng	100	10/6/2017 11:46:00	86765-1.RAW	11:46:00 AM	1648.48	x		1642.2	9.000	899.953	ng/L	
Hg2600-2	BC	SAM	EFGS03004 TV 100ng	100	10/6/2017 11:50:08	86766-1.RAW	11:50:08 AM	1698.18	x		1691.9	9.272	927.190	ng/L	
Hg2600-2	BC	BLK	F710204-BLK1	20	10/6/2017 11:54:16	86767-1.RAW	11:54:16 AM	29.52	3		23.2	0.127	2.545	ng/L	
Hg2600-2	BC	BLK	F710204-BLK2	20	10/6/2017 11:58:25	86768-1.RAW	11:58:25 AM	21.60	3		15.3	0.084	1.677	ng/L	
Hg2600-2	BC	BLK	F710204-BLK3	20	10/6/2017 12:02:33	86769-1.RAW	12:02:33 PM	22.37	3		16.1	0.088	1.762	ng/L	
Hg2600-2	BC	SAM	*F710204-BLK4	20	10/6/2017 12:06:42	86770-1.RAW	12:06:42 PM	22.42	3		16.1	-0.011	-0.228	ng/L	
Hg2600-2	BC	SAM	*F710204-BLK5	20	10/6/2017 12:10:50	86771-1.RAW	12:10:50 PM	17.98	3		11.7	-0.036	-0.714	ng/L	
Hg2600-2	BC	SAM	F710204-BS1	20	10/6/2017 12:14:58	86772-1.RAW	12:14:58 PM	848.96	3		842.7	4.518	90.365	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	10/6/2017 12:19:07	86773-1.RAW	12:19:07 PM	856.45			850.2	4.659	4.659	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-CCB4	1	10/6/2017 12:23:15	86774-1.RAW	12:23:15 PM	15.28			9.0	0.049	0.049	ng/L	
Hg2600-2	BC	SAM	F710204-BSD1	20	10/6/2017 12:27:24	86775-1.RAW	12:27:24 PM	889.19	3		882.9	4.739	94.774	ng/L	
Hg2600-2	BC	SAM	F710204-BS2	400	10/6/2017 12:31:32	86776-1.RAW	12:31:32 PM	973.45	3		967.2	5.295	2118.091	ng/L	
Hg2600-2	BC	SAM	WS		10/6/2017 12:40:48	86777-1.RAW	12:40:48 PM	43.36		x	37.1	0.203	0.000	ng/L	
Hg2600-2	BC	SAM	1709614-01	400	10/6/2017 12:44:56	86778-1.RAW	12:44:56 PM	1735.42	3		1729.1	9.471	3788.397	ng/L	
Hg2600-2	BC	SAM	WS		10/6/2017 12:58:28	86779-1.RAW	12:58:28 PM	52.13		x	45.8	0.251	0.000	ng/L	
Hg2600-2	BC	SAM	1709614-02	400	10/6/2017 13:02:36	86780-1.RAW	1:02:36 PM	2397.66	3		2391.4	13.100	5240.085	ng/L	
Hg2600-2	BC	SAM	1709614-15	400	10/6/2017 13:06:45	86781-1.RAW	1:06:45 PM	510.49	3		504.2	2.758	1103.242	ng/L	
Hg2600-2	BC	SAM	1709614-16	400	10/6/2017 13:10:53	86782-1.RAW	1:10:53 PM	479.54	3		473.2	2.588	1035.396	ng/L	
Hg2600-2	BC	SAM	1709614-17	400	10/6/2017 13:15:02	86783-1.RAW	1:15:02 PM	392.58	3		386.3	2.112	844.772	ng/L	
Hg2600-2	BC	SAM	1709614-18	400	10/6/2017 13:19:10	86784-1.RAW	1:19:10 PM	802.55	3		796.3	4.359	1743.463	ng/L	
Hg2600-2	BC	SAM	1709614-19	400	10/6/2017 13:23:19	86785-1.RAW	1:23:19 PM	933.95	3		927.7	5.079	2031.503	ng/L	
Hg2600-2	BC	SAM	1709614-20	400	10/6/2017 13:27:27	86786-1.RAW	1:27:27 PM	1061.41	3		1055.1	5.777	2310.907	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	10/6/2017 13:31:35	86787-1.RAW	1:31:35 PM	866.66			860.4	4.715	4.715	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	10/6/2017 13:35:44	86788-1.RAW	1:35:44 PM	28.68			22.4	0.123	0.123	ng/L	
Hg2600-2	BC	SAM	1709615-03	400	10/6/2017 13:39:52	86789-1.RAW	1:39:52 PM	343.15	3		336.9	1.841	736.418	ng/L	
Hg2600-2	BC	SAM	1709615-04	400	10/6/2017 13:44:01	86790-1.RAW	1:44:01 PM	222.38	3		216.1	1.179	471.679	ng/L	
Hg2600-2	BC	SAM	1709615-05	400	10/6/2017 13:48:09	86791-1.RAW	1:48:09 PM	301.63	3		295.3	1.614	645.402	ng/L	
Hg2600-2	BC	SAM	1709615-06	400	10/6/2017 13:52:18	86792-1.RAW	1:52:18 PM	205.95	3		199.7	1.089	435.663	ng/L	
Hg2600-2	BC	SAM	1709615-07	400	10/6/2017 13:56:26	86793-1.RAW	1:56:26 PM	311.91	3		305.6	1.670	667.937	ng/L	
Hg2600-2	BC	SAM	1709615-08	400	10/6/2017 14:00:34	86794-1.RAW	2:00:34 PM	376.45	3		370.2	2.024	809.414	ng/L	
Hg2600-2	BC	SAM	1709615-09	400	10/6/2017 14:04:43	86795-1.RAW	2:04:43 PM	1410.33	3		1404.0	7.689	3075.771	ng/L	
Hg2600-2	BC	SAM	1709615-10	400	10/6/2017 14:08:51	86796-1.RAW	2:08:51 PM	1234.81	3		1228.5	6.728	2691.015	ng/L	
Hg2600-2	BC	SAM	1709615-11	400	10/6/2017 14:13:00	86797-1.RAW	2:13:00 PM	1007.00	3		1000.7	5.479	2191.635	ng/L	
Hg2600-2	BC	SAM	1709616-01	400	10/6/2017 14:17:08	86798-1.RAW	2:17:08 PM	232.80	3		226.5	1.236	494.521	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	10/6/2017 14:21:16	86799-1.RAW	2:21:16 PM	874.04			867.7	4.755	4.755	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	10/6/2017 14:25:25	86800-1.RAW	2:25:25 PM	25.74			19.4	0.107	0.107	ng/L	
Hg2600-2	BC	SAM	1709617-02	20	10/6/2017 14:29:33	86801-1.RAW	2:29:33 PM	1061.97	3		1055.7	5.686	113.712	ng/L	
Hg2600-2	BC	SAM	1709617-03	20	10/6/2017 14:33:42	86802-1.RAW	2:33:42 PM	644.66	3		638.4	3.399	67.973	ng/L	
Hg2600-2	BC	SAM	1709615-06RE1	100	10/6/2017 14:37:50	86803-1.RAW	2:37:50 PM	822.04	3		815.7	4.451	445.051	ng/L	
Hg2600-2	BC	SAM	F710204-DUP1	400	10/6/2017 14:41:59	86804-1.RAW	2:41:59 PM	2329.77	3		2323.5	12.728	5091.264	ng/L	
Hg2600-2	BC	SAM	F710204-MS1	400	10/6/2017 14:46:07	86805-1.RAW	2:46:07 PM	3757.48	3		3751.2	20.552	8220.931	ng/L	
Hg2600-2	BC	SAM	F710204-MSD1	400	10/6/2017 14:50:15	86806-1.RAW	2:50:15 PM	3602.95	3		3596.7	19.705	7882.188	ng/L	
Hg2600-2	BC	SAM	F710204-MS2	400	10/6/2017 14:54:24	86807-1.RAW	2:54:24 PM	4387.25	3		4381.0	24.004	9601.443	ng/L	
Hg2600-2	BC	SAM	F710204-MSD2	400	10/6/2017 14:58:32	86808-1.RAW	2:58:32 PM	4444.82	3		4438.5	24.319	9727.641	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	10/6/2017 15:02:41	86809-1.RAW	3:02:41 PM	911.85			905.6	4.963	4.963	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	10/6/2017 15:06:49	86810-1.RAW	3:06:49 PM	42.06			35.8	0.196	0.196	ng/L	

TotalMercury EPA1631
 Operati BC
 BlankS: 6.2943
 Calib Eqn: Conc = (Area-6.294
 Run Date: 10/6/2017
 Blank SD: 4.410430011
 Worksh THg260(CalibFa 182.47
 Status: QC Warnings:4/QC E
 Run Time: 12:54:19
 Blank RSD%: 70.07057723
 Method ##### R: 1
 R²: 1
 CF SD: 5.739273964
 CF RSD%: 3.14524882
 Descrip THg26002-171006-1

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	5.10					86712-1.RAW	7:52:06	931.51	Clean	OK	1
clean				0.00	0.02					86713-1.RAW	7:54:57	3.62	Clean	OK	1
ws				6.29	0.03					86714-1.RAW	7:59:06	11.25	Sample	OK	1
ws				6.29	0.00					86715-1.RAW	8:03:14	5.17	Sample	OK	1
ws				6.29	0.01					86716-1.RAW	8:07:23	7.33	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.01					86717-1.RAW	8:11:31	1.21	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.05					86718-1.RAW	8:15:39	9.10	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					86719-1.RAW	8:19:48	8.58	Sample	OK	1
SEQ-CAL1	A4		1	6.29	0.52			103.96		86720-1.RAW	8:23:56	101.15	Sample	OK	1
SEQ-CAL2	A5		1	6.29	1.03			102.75		86721-1.RAW	8:28:05	193.78	Sample	OK	1
SEQ-CAL3	A6		1	6.29	4.85			97.04		86722-1.RAW	8:32:13	891.63	Sample	OK	1
SEQ-CAL4	A7		1	6.29	19.52			97.61		86723-1.RAW	8:36:22	3568.39	Sample	OK	1
SEQ-CAL5	A8		1	6.29	39.46			98.65		86724-1.RAW	8:40:30	7206.72	Sample	OK	1
SEQ-ICV1	A9		1	6.29	4.85			96.99		86725-1.RAW	8:44:38	891.20	Sample	OK	1
ws				6.29	0.36					86726-1.RAW	9:04:31	71.78	Sample	OK	1
F710248-BLK1	A10		1	6.29	0.02					86727-1.RAW	9:08:40	10.63	Sample	OK	1
F710248-BLK2	A11		1	6.29	0.05					86728-1.RAW	9:12:48	15.15	Sample	OK	1
F710248-BLK3	A12		1	6.29	0.02					86729-1.RAW	9:16:56	9.35	Sample	OK	1
F710248-BLK4	A13		10	6.29	0.52					86730-1.RAW	9:21:05	15.78	Sample	OK	1
F710248-BS1	A14		1	6.29	15.12					86731-1.RAW	9:25:13	2765.38	Sample	OK	1
F710248-BSD1	A15		1	6.29	15.00					86732-1.RAW	9:29:22	2744.00	Sample	OK	1
1709709-01	A16		1	6.29	0.12					86733-1.RAW	9:33:30	27.56	Sample	OK	1
1709709-02	A17		1	6.29	0.12					86734-1.RAW	9:37:39	27.79	Sample	OK	1
1709709-03	A18		1	6.29	1.76					86735-1.RAW	9:41:47	327.18	Sample	OK	1
1709709-04	A19		1	6.29	0.84					86736-1.RAW	9:45:55	159.41	Sample	OK	1
SEQ-CCV1	A20		1	6.29	4.75			94.98		86737-1.RAW	9:50:04	872.91	Sample	OK	1
SEQ-CCB1	A21		1	6.29	0.07			0.00		86738-1.RAW	9:54:12	19.13	Sample	OK	1
1709709-05	B1		1	6.29	0.97					86739-1.RAW	9:58:21	183.70	Sample	OK	1
1709709-06	B2		1	6.29	0.54					86740-1.RAW	10:02:29	105.44	Sample	OK	1
1710042-01	B3		1	6.29	0.04					86741-1.RAW	10:06:38	13.58	Sample	OK	1
1710142-01	B4		1	6.29	2.17					86742-1.RAW	10:10:46	402.56	Sample	OK	1
1710142-02	B5		1	6.29	0.27					86743-1.RAW	10:14:54	55.33	Sample	OK	1
1710142-03	B6		1	6.29	2.28					86744-1.RAW	10:19:03	423.00	Sample	OK	1
1710142-04	B7		1	6.29	0.26					86745-1.RAW	10:23:11	52.92	Sample	OK	1
1710142-05	B8		10	6.29	10.81					86746-1.RAW	10:27:20	203.49	Sample	OK	1
1710142-06	B9		1	6.29	0.26					86747-1.RAW	10:31:28	53.23	Sample	OK	1
1710143-01	B10		1	6.29	0.56					86748-1.RAW	10:35:36	107.58	Sample	OK	1
SEQ-CCV2	B11		1	6.29	4.75			95.02		86749-1.RAW	10:39:45	873.27	Sample	OK	1
SEQ-CCB2	B12		1	6.29	0.06			0.00		86750-1.RAW	10:43:53	16.56	Sample	OK	1
1710143-02	B13		1	6.29	0.53					86751-1.RAW	10:48:02	102.18	Sample	OK	1
1710143-03	B14		1	6.29	0.60					86752-1.RAW	10:52:10	115.58	Sample	OK	1
1710143-04	B15		1	6.29	0.82					86753-1.RAW	10:56:18	155.17	Sample	OK	1
1710143-05	B16		1	6.29	1.20					86754-1.RAW	11:00:27	225.21	Sample	OK	1

1710143-06	B17	1	6.29	0.46		86755-1.RAW	11:04:35	89.74	Sample	OK	1
F710248-DUP1	B18	1	6.29	1.74		86756-1.RAW	11:08:44	323.94	Sample	OK	1
F710248-MS1	B19	1	6.29	6.33	230.84	86757-1.RAW	11:12:52	1160.78	Sample	OK	1
F710248-MSD1	B20	1	6.29	6.31		86758-1.RAW	11:17:01	1157.67	Sample	OK	1
F710248-MS2	B21	1	6.29	6.97	83.85	86759-1.RAW	11:21:09	1277.71	Sample	OK	1
F710248-MSD2	C1	1	6.29	6.80		86760-1.RAW	11:25:17	1246.41	Sample	OK	1
SEQ-CCV3	C2	1	6.29	4.55	91.02	86761-1.RAW	11:29:26	836.69	Sample	OK	1
SEQ-CCB3	C3	1	6.29	0.06	0.00	86762-1.RAW	11:33:34	16.57	Sample	OK	1
EFGS06396 TV !	C4	100	6.29	438.30		86763-1.RAW	11:37:43	806.07	Sample	OK	1
EFGS17786 TV !	C5	100	6.29	457.37		86764-1.RAW	11:41:51	840.87	Sample	OK	1
EFGS18673 TV	C6	100	6.29	899.96		86765-1.RAW	11:46:00	1648.48	Sample	OK	1
EFGS03004 TV	C7	100	6.29	927.19		86766-1.RAW	11:50:08	1698.18	Sample	OK	1
F710204-BLK1	C8	20	6.29	2.55		86767-1.RAW	11:54:16	29.52	Sample	OK	1
F710204-BLK2	C9	20	6.29	1.68		86768-1.RAW	11:58:25	21.60	Sample	OK	1
F710204-BLK3	C10	20	6.29	1.76		86769-1.RAW	12:02:33	22.37	Sample	OK	1
*F710204-BLK4	C11	20	6.29	1.77		86770-1.RAW	12:06:42	22.42	Sample	OK	1
*F710204-BLK5	C12	20	6.29	1.28		86771-1.RAW	12:10:50	17.98	Sample	OK	1
F710204-BS1	C13	20	6.29	92.36		86772-1.RAW	12:14:58	848.96	Sample	OK	1
SEQ-CCV4	C14	1	6.29	4.66	93.18	86773-1.RAW	12:19:07	856.45	Sample	OK	1
SEQ-CCB4	C15	1	6.29	0.05	0.00	86774-1.RAW	12:23:15	15.28	Sample	OK	1
F710204-BSD1	C16	20	6.29	96.77		86775-1.RAW	12:27:24	889.19	Sample	OK	1
F710204-BS2	C17	400	6.29	2120.09		86776-1.RAW	12:31:32	973.45	Sample	OK	1
WS			6.29	0.20		86777-1.RAW	12:40:48	43.36	Sample	OK	1
1709614-01	C18	400	6.29	3790.40		86778-1.RAW	12:44:56	1735.42	Sample	OK	1
WS			6.29	0.25		86779-1.RAW	12:58:28	52.13	Sample	OK	1
1709614-02	C19	400	6.29	5242.08		86780-1.RAW	13:02:36	2397.66	Sample	OK	1
1709614-15	C20	400	6.29	1105.23		86781-1.RAW	13:06:45	510.49	Sample	OK	1
1709614-16	C21	400	6.29	1037.39		86782-1.RAW	13:10:53	479.54	Sample	OK	1
1709614-17	A1	400	6.29	846.76		86783-1.RAW	13:15:02	392.58	Sample	OK	1
1709614-18	A2	400	6.29	1745.47		86784-1.RAW	13:19:10	802.55	Sample	OK	1
1709614-19	A3	400	6.29	2033.50		86785-1.RAW	13:23:19	933.95	Sample	OK	1
1709614-20	A4	400	6.29	2312.91		86786-1.RAW	13:27:27	1061.41	Sample	OK	1
SEQ-CCV5	A5	1	6.29	4.71	94.30	86787-1.RAW	13:31:35	866.66	Sample	OK	1
SEQ-CCB5	A6	1	6.29	0.12	0.00	86788-1.RAW	13:35:44	28.68	Sample	OK	1
1709615-03	A7	400	6.29	738.42		86789-1.RAW	13:39:52	343.15	Sample	OK	1
1709615-04	A8	400	6.29	473.68		86790-1.RAW	13:44:01	222.38	Sample	OK	1
1709615-05	A9	400	6.29	647.39		86791-1.RAW	13:48:09	301.63	Sample	OK	1
1709615-06	A10	400	6.29	437.66		86792-1.RAW	13:52:18	205.95	Sample	OK	1
1709615-07	A11	400	6.29	669.93		86793-1.RAW	13:56:26	311.91	Sample	OK	1
1709615-08	A12	400	6.29	811.41		86794-1.RAW	14:00:34	376.45	Sample	OK	1
1709615-09	A13	400	6.29	3077.77		86795-1.RAW	14:04:43	1410.33	Sample	OK	1
1709615-10	A14	400	6.29	2693.01		86796-1.RAW	14:08:51	1234.81	Sample	OK	1
1709615-11	A15	400	6.29	2193.65		86797-1.RAW	14:13:00	1007.00	Sample	OK	1
1709616-01	A16	400	6.29	496.52		86798-1.RAW	14:17:08	232.80	Sample	OK	1
SEQ-CCV6	A17	1	6.29	4.76	95.11	86799-1.RAW	14:21:16	874.04	Sample	OK	1
SEQ-CCB6	A18	1	6.29	0.11	0.00	86800-1.RAW	14:25:25	25.74	Sample	OK	1
1709617-02	A19	20	6.29	115.71		86801-1.RAW	14:29:33	1061.97	Sample	OK	1

1709617-03	A20	20	6.29	69.97		86802-1.RAW	14:33:42	644.66	Sample	OK	1
1709615-06RE1	A21	100	6.29	447.05		86803-1.RAW	14:37:50	822.04	Sample	OK	1
F710204-DUP1	B1	400	6.29	5093.26		86804-1.RAW	14:41:59	2329.77	Sample	OK	1
F710204-MS1	B2	400	6.29	8222.93	161.42	86805-1.RAW	14:46:07	3757.48	Sample	OK	1
F710204-MSD1	B3	400	6.29	7884.19		86806-1.RAW	14:50:15	3602.95	Sample	OK	1
F710204-MS2	B4	400	6.29	9603.45	121.78	86807-1.RAW	14:54:24	4387.25	Sample	OK	1
F710204-MSD2	B5	400	6.29	9729.64		86808-1.RAW	14:58:32	4444.82	Sample	OK	1
SEQ-CCV7	B6	1	6.29	4.96	99.25	86809-1.RAW	15:02:41	911.85	Sample	OK	1
SEQ-CCB7	B7	1	6.29	0.20	0.00	86810-1.RAW	15:06:49	42.06	Sample	OK	1
SnCl2 1705960	B8	1	6.29	0.07		86811-1.RAW	15:10:57	19.50	Sample	OK	1
CLEAN			0.00	0.02		86812-1.RAW	15:13:49	4.44	Clean	OK	1
CLEAN						86813-1.RAW	15:16:40	10.60	Clean	OK	1
WS						86814-1.RAW	15:20:49	24.57	Sample	OK	1
WS						86815-1.RAW	15:24:57	11.10	Sample	OK	1

Failing Data Report - 7J09009

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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B. C. S. 10/9/17
 Analyst Reviewed By Date

Dan M. [unclear] 10/9/17
 Peer Reviewed By Date

Failing Data Report - 7J09010

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Becy 10/9/17
Analyst Reviewed By Date

Dan Maxam 10/9/17
Peer Reviewed By Date

ANALYSIS SEQUENCE

7J09009



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J09009-IBL1	QC	1			
7J09009-IBL2	QC	2			
7J09009-IBL3	QC	3			
7J09009-CAL1	QC	4	1704505		
7J09009-CAL2	QC	5	1704506		
7J09009-CAL3	QC	6	1704507		
7J09009-CAL4	QC	7	1704508		
7J09009-CAL5	QC	8	1704509		
7J09009-ICV1	QC	9	1705628		
F710248-BLK1	QC	10			
F710248-BLK2	QC	11			
F710248-BLK3	QC	12			
F710248-BLK4	QC	13			
F710248-BS1	QC	14			
F710248-BSD1	QC	15			
1709709-01	Hg-CVAFS-W-1631	16			
1709709-02	Hg-CVAFS-W-1631	17			
1709709-03	Hg-CVAFS-W-1631	18			
1709709-04	Hg-CVAFS-W-1631	19			
7J09009-CCV1	QC	20	1705628		
7J09009-CCB1	QC	21			
1709709-05	Hg-CVAFS-W-1631	22			
1709709-06	Hg-CVAFS-W-1631	23			
1710042-01	Hg-CVAFS-W-1631	24			Do not oven samples (CCV 90-110%, CCB <), <1/2 PQL
1710142-01	Hg-CVAFS-W-1631	25			
1710142-02	Hg-CVAFS-W-1631	26			
1710142-03	Hg-CVAFS-W-1631	27			
1710142-04	Hg-CVAFS-W-1631	28			
1710142-05	Hg-CVAFS-W-1631	29			
1710142-06	Hg-CVAFS-W-1631	30			
1710143-01	Hg-CVAFS-W-1631	31			Scan all data for level IV report
7J09009-CCV2	QC	32	1705628		
7J09009-CCB2	QC	33			
1710143-02	Hg-CVAFS-W-1631	34			Scan all data for level IV report
1710143-03	Hg-CVAFS-W-1631	35			Scan all data for level IV report

Due Date: 10/9/2017

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ANALYSIS SEQUENCE

7J09010

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J09010-IBL1	QC	1			
7J09010-IBL2	QC	2			
7J09010-IBL3	QC	3			
7J09010-CAL1	QC	4	1704505		
7J09010-CAL2	QC	5	1704506		
7J09010-CAL3	QC	6	1704507		
7J09010-CAL4	QC	7	1704508		
7J09010-CAL5	QC	8	1704509		
7J09010-ICV1	QC	9	1705628		
7J09010-CCV1	QC	10	1705628		
7J09010-CCB1	QC	11			
7J09010-CCV2	QC	12	1705628		
7J09010-CCB2	QC	13			
7J09010-CCV3	QC	14	1705628		
7J09010-CCB3	QC	15			
F710204-BLK1	QC	16			
F710204-BLK2	QC	17			
F710204-BLK3	QC	18			
F710204-BLK4	QC	19			
F710204-BLK5	QC	20			
F710204-BS1	QC	21			
7J09010-CCV4	QC	22	1705628		
7J09010-CCB4	QC	23			
F710204-BSD1	QC	24			
F710204-BS2	QC	25			
1709614-01	Hg-CVAFS-T-7030	26			
1709614-02	Hg-CVAFS-T-7030	27			
1709614-15	Hg-CVAFS-T-7030	28			
1709614-16	Hg-CVAFS-T-7030	29			
1709614-17	Hg-CVAFS-T-7030	30			
1709614-18	Hg-CVAFS-T-7030	31			
1709614-19	Hg-CVAFS-T-7030	32			
1709614-20	Hg-CVAFS-T-7030	33			
7J09010-CCV5	QC	34	1705628		
7J09010-CCB5	QC	35			

Due Date: 10/20/2017

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Page 1 of 2

ANALYSIS SEQUENCE

7J09010

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709615-03	Hg-CVAFS-T-7030	36			
1709615-04	Hg-CVAFS-T-7030	37			
1709615-05	Hg-CVAFS-T-7030	38			
1709615-06	Hg-CVAFS-T-7030	39			
1709615-07	Hg-CVAFS-T-7030	40			
1709615-08	Hg-CVAFS-T-7030	41			
1709615-09	Hg-CVAFS-T-7030	42			
1709615-10	Hg-CVAFS-T-7030	43			
1709615-11	Hg-CVAFS-T-7030	44			
1709616-01	Hg-CVAFS-T-7030	45			
7J09010-CCV6	QC	46	1705628		
7J09010-CCB6	QC	47			
1709617-02	Hg-CVAFS-T-7030	48			
1709617-03	Hg-CVAFS-T-7030	49			
1709615-06RE1	Hg-CVAFS-T-7030	50			Added 10/9/2017 by BC
F710204-DUP1	QC	51			
F710204-MS1	QC	52			
F710204-MSD1	QC	53			
F710204-MS2	QC	54			
F710204-MSD2	QC	55			
7J09010-CCV7	QC	56	1705628		
7J09010-CCB7	QC	57			

Beck 10/9/17
 Samples Loaded By Date

Beck 10/9/17
 Data Processed By Date

10nd 21
10/6/17

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710248-BLK1	Blank	100	101					SOURCE 1710143-07
F710248-BLK2	Blank	100	101					SOURCE 1710143-07
F710248-BLK3	Blank	100	101					SOURCE 1710143-07
F710248-BLK4	Blank	10	20					
F710248-BS1	LCS	50	50.5	1705054	100			
F710248-BSD1	LCS Dup	50	50.5	1705054	100			
F710248-DUP1	Duplicate [1709709-03]	100	101					
F710248-MS1	Matrix Spike [1709709-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710248-MS2	Matrix Spike [1710142-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710248-MSD1	Matrix Spike Dup [1709709-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710248-MSD2	Matrix Spike Dup [1710142-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705054	Nist 1641D 200X	21-Aug-18 00:00	1705580	0.2 N BRCL SEPTEMBER 2017	14-Mar-18 00:00
			1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709709-01	OS-RB-20170921	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	
1709709-02	OS-RB-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	
1709709-03	NC376OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	
1709709-04	NC376OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	
1709709-05	NC377OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	
1709709-06	NC377OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	
1710042-01	October 2017 Monthly Water ICPMS Sink 1	100	101	-	-	-	Do not oven samples (CCV 90-110%, t	
1710142-01	Lagoons	100	101	-	-	-		
1710142-02	Lagoons Field Blank	100	101	-	-	-		
1710142-03	Clarifier	100	101	-	-	-		
1710142-04	Clarifier Field Blank	100	101	-	-	-		
1710142-05	A149	10	20	-	-	-		
1710142-06	A149 Blank	100	101	-	-	-		
1710143-01	OL-2678-01	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-02	OL-2678-02	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-03	OL-2678-03	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-04	OL-2678-04	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-05	OL-2678-05	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-06	OL-2678-06	100	101	-	-	-	Preservation Blank Created Scan all dat	

PREPARATION BENCH SHEET

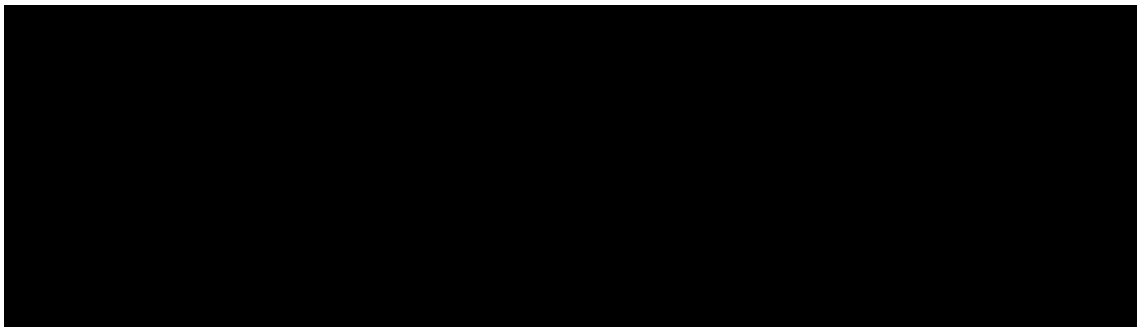
F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017



PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710204-BLK1	Blank	0.25	20					
F710204-BLK2	Blank	0.25	20					
F710204-BLK3	Blank	0.25	20					
F710204-BLK4	Blank	0.284	20					Pre-homogenization Blank for 1709615
F710204-BLK5	Blank	0.265	20					Post-homogenization Blank for 179615
F710204-BS1	LCS	0.25	20	1704421	20			
F710204-BS2	LCS	0.128	20	1705412	128			
F710204-BSD1	LCS Dup	0.25	20	1704421	20			
F710204-DUP1	Duplicate [1709614-02]	0.272	20					
F710204-MS1	Matrix Spike [1709614-01]	0.278	20	1705554	100			
F710204-MS2	Matrix Spike [1709614-02]	0.276	20	1705554	100			
F710204-MSD1	Matrix Spike Dup [1709614-01]	0.26	20	1705554	100			
F710204-MSD2	Matrix Spike Dup [1709614-02]	0.273	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705823	5% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709614-01	OB-01_17ET001_091617_TOM_01_WB	0.277	20	QC	-	-	MS/MSD	
1709614-02	OB-01_17ET001_091617_TOM_02_WB	0.274	20	-	-	-	Sample contains enough volume for QC	
1709614-15	OB-01_17ET004_091617_TOM_15_WB	0.272	20	-	-	-		
1709614-16	OB-01_17ET004_091617_TOM_16_WB	0.268	20	-	-	-		
1709614-17	OB-01_17ET005_091617_TOM_17_WB	0.257	20	-	-	-		
1709614-18	OB-01_17ET006_091617_TOM_18_WB	0.257	20	-	-	-		
1709614-19	OB-01_17ET007_091617_TOM_19_WB	0.254	20	-	-	-		
1709614-20	OB-01_17ET008_091617_TOM_20_WB	0.254	20	-	-	-		
1709615-03	ES-13_17ET719_091817_TOM_03_WB	0.279	20	-	-	-		
1709615-04	ES-13_17ET719_091817_TOM_04_WB	0.262	20	-	-	-		
1709615-05	ES-13_17ET719_091817_TOM_05_WB	0.284	20	-	-	-		
1709615-06	ES-13_17ET719_091817_TOM_06_WB	0.272	20	-	-	-		
1709615-06RE1	ES-13_17ET719_091817_TOM_06_WB	0.272	20	-	-	-	Added 10/9/2017 by BC	Added 10/9/2017 by BC
1709615-07	ES-13_17ET722_091817_TOM_07_WB	0.256	20	-	-	-		
1709615-08	ES-13_17ET722_091817_TOM_08_WB	0.269	20	-	-	-		
1709615-09	ES-13_17ET723_091817_TOM_09_WB	0.257	20	-	-	-		
1709615-10	ES-13_17ET723_091817_TOM_10_WB	0.257	20	-	-	-		
1709615-11	ES-13_17ET717_091817_TOM_11_WB	0.255	20	-	-	-		
1709616-01	ES-FP_17ET658_091517_TOM_01_WB	0.266	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710204

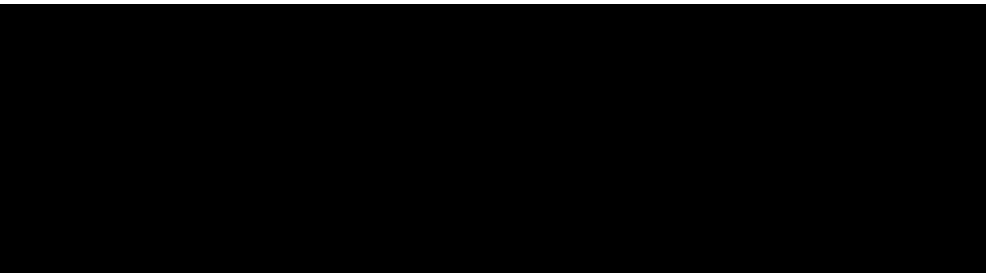
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

1709617-02	FRB-01_17SN001_091217_MUM_02_WB	0.272	20	-	-	-		
1709617-03	FRB-01_17SN001_091217_MUM_03_WB	0.269	20	-	-	-		



BC 10/6/17
2600-2

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710248-BLK1	Blank	100	101					1X source 1710143-07
F710248-BLK2	Blank	100	101					1X
F710248-BLK3	Blank	100	101					1X
F710248-BLK4	Blank	100 10	101 20					10X
F710248-BS1	LCS	100	101	1705580	100			1X
F710248-BSD1	LCS Dup	100	101		100			1X
F710248-DUP1	Duplicate 1709709-03	100	101					1X
F710248-MS1	Matrix Spike 1709709-03	100	101	1704422	25			1X
F710248-MS2	Matrix Spike 17011710142-03	100	101	1704422	25			1X
F710248-MSD1	Matrix Spike Dup 1709709-03	100	101	1704422	25			1X
F710248-MSD2	Matrix Spike Dup 1710142-03	100	101	1704422	25			1X

Standard ID(s): Description: Expiration:

1X = 50µL
5µL = 10X

1705580
1705611
1703182
1705979
1705610

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709709-01	OS-RB-20170921	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	IX
1709709-02	OS-RB-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	IX
1709709-03	NC376OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	IX
1709709-04	NC376OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	IX
1709709-05	NC377OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	IX
1709709-06	NC377OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	IX
1710042-01	October 2017 Monthly Water ICPMS Sink 1	100	101	-	-	-	Do not oven samples (CCV 90-110%, t	IX
1710142-01	Lagoons	100	101	-	-	-		IX
1710142-02	Lagoons Field Blank	100	101	-	-	-		IX
1710142-03	Clarifier	100	101	-	-	-		IX
1710142-04	Clarifier Field Blank	100	101	-	-	-		IX
1710142-05	A149	100	101	-	-	-		10X
1710142-06	A149 Blank	100	101	-	-	-		IX
1710143-01	OL-2678-01	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-02	OL-2678-02	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-03	OL-2678-03	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-04	OL-2678-04	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-05	OL-2678-05	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-06	OL-2678-06	100	101	-	-	-	Preservation Blank Created Scan all dat	IX

010701
010501
010302

Due Date: 10/9/2017

PREPARATION BENCH SHEET

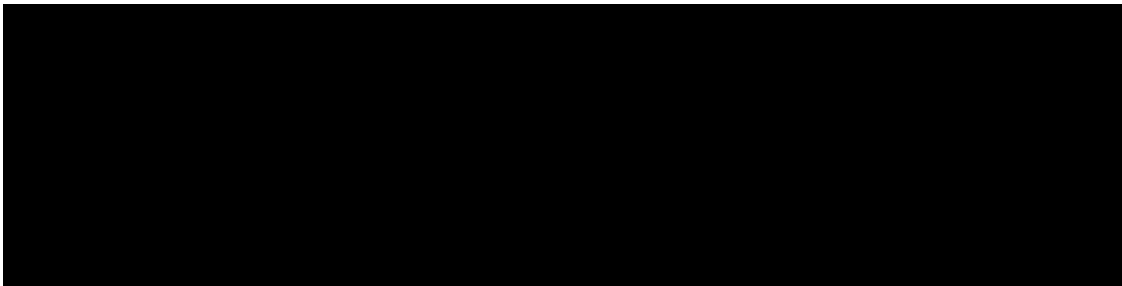
F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017



Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 9/26/17 Time Completed: 17:27

Work Orders: 1709700
1709709

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1704915

Pipette SN: J07631

Cal. Date: 9/20/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1709700-01A	300	3.00	Y			
1709700-02A	300	3.00	Y			
1709700-03A	300	3.00	Y			
1709700-04A	300	3.00	Y			
1709709-01A	300	3.00	Y			
1709709-02A	300	3.00	Y			
1709709-03A	300	3.00	Y			
1709709-04A	300	3.00	Y			
1709709-05A	300	3.00	Y			
1709709-06A	300	3.00	Y			
<div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.5;"> <p>LM 9/26/17</p> </div>						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
10/5/17

Total Mercury Preservation Logbook

Work Orders: 1710142-1710142
1710143, 1710146
 BrCl LIMS ID: 1705580
 Pipette SN: 507631
 Cal. Date: 10/4/17

Initial preservation and/or verification
 Technician: CSP Date: 10/4/17 Time Completed: 1730

Additional preservation and/or verification (as needed)
 Technician: _____ Date: _____ Time Completed: _____
 Technician: _____ Date: _____ Time Completed: _____

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710143-01A	300	3.00	y			
1710143-02A	300	3.00	y			
1710143-03A	300	3.00	y			
1710143-04A	300	3.00	y			
1710143-05A	300	3.00	y			
1710143-06A	300	3.00	y			
1710143-07A	300	3.00	y			
1710142-01A	300	3.00	y			
1710142-02A	300	3.00	y			
1710142-03A	300	3.00	y			
1710142-04A	300	3.00	y			
1710142-05B	10	10	y			
1710142-06A	300	3.00	y			
1710146-01A	300	3.00	y			
1710146-02A	300	3.00	y			
1710146-03A	300	3.00	y			
CSP 10/4/17						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

PREPARATION BENCH SHEET

2600-2
 BCL 10/6/17

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710204-BLK1	Blank	0.25	20					20X
F710204-BLK2	Blank	0.25	20					20X
F710204-BLK3	Blank	0.25	20					20X
F710204-BLK4	Blank	0.284	20					Pre-homogenization Blank for 1709615 20X
F710204-BLK5	Blank	0.265	20					Post-homogenization Blank for 179615 20X
F710204-BS1	LCS	0.25	20	1704421	20			20X
F710204-BS2	LCS	0.128	20	1705412	128			400X
F710204-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710204-DUP1	Duplicate [1709614-02]	0.272	20					400X
F710204-MS1	Matrix Spike [1709614-01]	0.278	20	1705554	100			400X
F710204-MS2	Matrix Spike [1709614-02]	0.276	20	1705554	100			400X 400X
F710204-MSD1	Matrix Spike Dup [1709614-01]	0.26	20	1705554	100			400X
F710204-MSD2	Matrix Spike Dup [1709614-02]	0.273	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705823	5% BrCl	22-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00

400X = 125µL
 100X = 500µL
 20X = 2.5µL

1705611
 1705610
 1703182
 1705779

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709614-01	OB-01_17ET001_091617_TOM_01_WB	0.277	20	QC	-	-	MS/MSD 400	
1709614-02	OB-01_17ET001_091617_TOM_02_WB	0.274	20	-	-	-	Sample contains enough volume for QC 400x	
1709614-15	OB-01_17ET004_091617_TOM_15_WB	0.272	20	-	-	-	400x	
1709614-16	OB-01_17ET004_091617_TOM_16_WB	0.268	20	-	-	-	400x	
1709614-17	OB-01_17ET005_091617_TOM_17_WB	0.257	20	-	-	-	400x	
1709614-18	OB-01_17ET006_091617_TOM_18_WB	0.257	20	-	-	-	400x	
1709614-19	OB-01_17ET007_091617_TOM_19_WB	0.254	20	-	-	-	400x	
1709614-20	OB-01_17ET008_091617_TOM_20_WB	0.254	20	-	-	-	400x	
1709615-03	ES-13_17ET719_091817_TOM_03_WB	0.279	20	-	-	-	400x	
1709615-04	ES-13_17ET719_091817_TOM_04_WB	0.262	20	-	-	-	400x	
1709615-05	ES-13_17ET719_091817_TOM_05_WB	0.284	20	-	-	-	400x	
1709615-06	ES-13_17ET719_091817_TOM_06_WB	0.272	20	-	-	-	400x → 100x	
1709615-07	ES-13_17ET722_091817_TOM_07_WB	0.256	20	-	-	-	400x	
1709615-08	ES-13_17ET722_091817_TOM_08_WB	0.269	20	-	-	-	400x	
1709615-09	ES-13_17ET723_091817_TOM_09_WB	0.257	20	-	-	-	400x	
1709615-10	ES-13_17ET723_091817_TOM_10_WB	0.257	20	-	-	-	400x	
1709615-11	ES-13_17ET717_091817_TOM_11_WB	0.255	20	-	-	-	400x	
1709616-01	ES-FP_17ET658_091517_TOM_01_WB	0.266	20	-	-	-	400x	
1709617-02	FRB-01_17SN001_091217_MUM_02_WB	0.272	20	-	-	-	20x	

PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

1709617-03	FRB-01_17SN001_091217_MUM_03_WB	0.269	20	-	-	-	20x	
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Technician: WPF Batch#: F710204 Date: 10/3/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19 (0.0204) Calibrated? Yes No Therm.#: 1404/801 Calibrated? Yes No
 Time in: 17:15 Actual Temp. (raw): 80.4 °C w/ CF: 80.1 °C
 Time out: 19:15 Actual Temp. (raw): Timer °C w/ CF: Timer °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705823) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: BL 10/3/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0267852 Calibration Date: 10/2/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705859 Dispenser #: 0262749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 746
 Glass Vial # 0008124 Boiling Chip lot # 1702551 *Hotblock Position: M5

Vial #	Sample ID Number	Sample Size		Vial #	Sample ID Number	Sample Size		CRM LIMS ID
		<input type="checkbox"/> mL	<input type="checkbox"/> µg			<input type="checkbox"/> mL	<input type="checkbox"/> µg	
1	F710204 - BLK1	0.257		23	1709615 - 07	0.256		BS2 <input type="checkbox"/> NA <u>WPF</u> 10/3/17 BS1/BS2 = DUBBLE LIMS 1709412
2	F710204 - BLK2	0.260		24	1709615 - 08	0.269		
3	F710204 - BLK3	0.256		25	1709615 - 09	0.257		
4	F710204 - BS1	0.257		26	1709615 - 10	0.257		
5	F710204 - BSD1	0.254		27	1709615 - 11	0.255		MS1/MS2 1 source = 1709614 - 01
6	1709614 - 01	0.277		28	1709616 - 01	0.266		DUP1/MS2/MSD2 source = 1709614 - 02
7	F710204 - MS1	0.278		29	1709617 - 02	0.272		
8	F710204 - MSD1	0.260		30	1709617 - 03	0.269		BS/BS1 spiked with 20µl of 1704421
9	1709614 - 02	0.274		31	F710204 - BS2	0.1280		
10	F710204 - DUP1	0.272		32	F710204 - BLK4	0.284		BLK4 + S are Pre/Post blanks for 1709615 -
11	F710204 - MS2	0.276		33	F710204 - BLK5	0.265		
12	F710204 - MSD2	0.273		34				
13	1709614 - 15	0.272		35				
14	1709614 - 16	0.268		36				
15	1709614 - 17	0.257		37				BS/BS1 spiked with 20 µl of 1704421
16	1709614 - 18	0.257		38				*Redundant art
17	1709614 - 19	0.254		39				
18	1709614 - 20	0.254		40				
19	1709615 - 03	0.279		41				Pre/Post Blanks for 1709616 are in batch F710207
20	1709615 - 04	0.262		42				
21	1709615 - 05	0.284		43				Pre/Post blanks for 1709616 are in batch F710196
22	1709615 - 06	0.272		44				Pre/Post Blanks for 1709616 are in batch F710214

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J09009, 7J09010
Reviewer: DM	Dataset ID(s): THg26002-171006-1
Date: 10/9/2017	WO (s) #:
Batch #(s): F710248, F710204	

• Select the correct preparation method.

Analyte	Prep Method	Matrix
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric
<input checked="" type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation
<input type="checkbox"/> Hg0	NA	NA
<input type="checkbox"/> Inorg Hg	NA	NA

Analyst Initials: BC **Reviewer Initials:** DM

- | | | | |
|---|---|--|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | | | |
| (b) Check 5% of transcription from Instrument print-out and Excel file | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | | | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 50 ml / aliquot = Excel dilution value | | | |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? _____ | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7J09009, 7J09010
Reviewer:	0	Dataset ID(s):	THg26002-171006-1
Date:	10/9/2017	WO (s) #:	0
Batch #(s):	F710248, F710204		0

Analyst Initials BC Reviewer Initials DM

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
- Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
- Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
- Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
- Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
- Comments: _____
12. Explain any items on the failed data report from Element
- Comments: _____
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
- (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:
- (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
- (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
- (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
- (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
- (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
- Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
- Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J09009, 7J09010
Reviewer: 0	Dataset ID(s): THg26002-171006-1
Date: 10/9/2017	WO (s) #: 0
Batch #(s): F710248, F710204	0

Analyst Initials BC **Reviewer Initials** DM

- 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? YES NO
 Comments: _____
 - 21. Are all samples within instrument calibration range? (or at minimum dilution size) PASS FAIL
 Comments: _____
 - 22. Are the samples run at the correct dilution level for the method? YES NO
 Comments: _____
 - 23. Dissolved < Total (if applicable) YES NO N/A
 Comments: _____
 - 24. Effluent < Influent (visually confirm if needed) YES NO N/A
 Comments: _____
 - 25. Are re-runs noted with reason? YES NO N/A
 Comments: _____
 - 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? YES NO N/A
 Comments: _____
 - 27. Is the B trap <5% A Traps YES NO N/A
 Comments: _____
 - 28. Are spiked trap recoveries 75-125% of true value? YES NO N/A
 Comments: _____
 - 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
 Comments: _____
 - 30. Have re-extracts been created for non-reportable samples? YES NO N/A
 - 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. YES NO N/A
 - 32. Does the data set need scanning? YES NO N/A
 - 33. Does the dataset have an LOQ/LOQ or DOC? YES NO N/A
 - 34. Water samples: has the preservation log been included in dataset for final volume verification? YES NO N/A
 - 35. Water samples-is the final volume correct in the sequence? YES NO N/A
- Files located at:** \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs
- 36. Date of analyst IDOC/CDOC: 1/11/17, 1/27/17 IDOC/CDOC within last 12 months? YES NO
 - 37. Date of analyst's SOP reading for method: 5/20/17 Current SOP revision read? YES NO
 - 38. Date of LOD: 5/9/17, 4/26/17 LOD within last 3 months? YES NO
 - 39. Date of LOQ: 5/9/17, 4/26/17 LOQ within last 3 months? YES NO

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709615

PO#

C012505850

October 13, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709615

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October 13, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-13_17LT012_091317_TOM_01_WB	1709615-01	Tissue	13-Sep-17 11:50	22-Sep-17 10:25
ES-13_17ET718_091817_TOM_02_WB	1709615-02	Tissue	18-Sep-17 08:36	22-Sep-17 10:25
ES-13_17ET719_091817_TOM_03_WB	1709615-03	Tissue	18-Sep-17 08:41	22-Sep-17 10:25
ES-13_17ET719_091817_TOM_04_WB	1709615-04	Tissue	18-Sep-17 08:41	22-Sep-17 10:25
ES-13_17ET719_091817_TOM_05_WB	1709615-05	Tissue	18-Sep-17 08:41	22-Sep-17 10:25
ES-13_17ET719_091817_TOM_06_WB	1709615-06	Tissue	18-Sep-17 08:41	22-Sep-17 10:25
ES-13_17ET722_091817_TOM_07_WB	1709615-07	Tissue	18-Sep-17 08:54	22-Sep-17 10:25
ES-13_17ET722_091817_TOM_08_WB	1709615-08	Tissue	18-Sep-17 08:54	22-Sep-17 10:25
ES-13_17ET723_091817_TOM_09_WB	1709615-09	Tissue	18-Sep-17 08:59	22-Sep-17 10:25
ES-13_17ET723_091817_TOM_10_WB	1709615-10	Tissue	18-Sep-17 08:59	22-Sep-17 10:25
ES-13_17ET717_091817_TOM_11_WB	1709615-11	Tissue	18-Sep-17 08:33	22-Sep-17 10:25

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Amy Goodall, Project Manager

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King**Reported:**
13-Oct-17 12:42

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM. The samples were received intact, on-ice within two sealed coolers at -27.1 and -21.6 degrees Celsius.

Client requested Lipids Analysis by NOAA 1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches; F710204 and F710207. Per client request, sample 1709615-02 was used as the QC source in batch F710207. These samples were analyzed in sequences 7J09010 and 7J09011.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries.

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

Client: AMSC Foster Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/23/17 Labeled By: CSB

Project: _____

Received By: LM Label Verified By: Be

of Coolers Received: 2 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>170404186</u> CF: <u>10.1</u> °C	Date/time: <u>9/22/17 10:25</u> By: <u>LM</u>
Cooler 1: <u>-27.22</u> °C w/ CF: <u>-27.12</u> °C	Cooler 4: °C w/ CF: °C
Cooler 2: <u>-21.73</u> °C w/ CF: <u>-21.63</u> °C	Cooler 5: °C w/ CF: °C
Cooler 3: °C w/ CF: °C	Cooler 6: °C w/ CF: °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	Y	
Preservation type:	N	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4846 Cooler 2: 7878 1037 1884

1709615



1709615



Environmental Analysis Request/Chain of Custody

Client: Amco Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101		Matrix		Analyses Requested					For Lab Use Only					
Project Name#: USDC Penobscot		PN # 0616166052.04A.055		Preservation Codes					SF # _____					
Project Manager: Rod Pendleton		P.O. # C01250850							SCR # _____					
Sampler: JB		PWS ID #:							Preservation Codes					
Phone #:		Quote #:							F = FGI T = Inoculate					
State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>							N = H ₂ O ₂ E = NaOH					
									S = H ₂ SO ₄ T = HNO ₃					
									C = Clean					
Sample Identification		Collection		Composite		Matrix		Total # of Containers		Remarks				
	Date	Time	Grab	Soil	Water	Other:	Soil	Water	Other:	Hg 105ml/lipid/100g/100g/200g/100g				
1	ES-13_17ET012_091817_TOM_01_W3	091817	08:00	X			X	X	X	X				
2	ES-13_17ET716_091817_TOM_02_WB	091817	08:05	X			X	X	X	X				
3	ES-13_17ET719_091817_TOM_03_WB	091817	08:41	X			X	X	X	X	use volume for MS/MSD			
4	ES-13_17ET735_091817_TOM_04_WB	091817	09:45	X			X	X	X	X				
5	ES-13_17ET719_091817_TOM_05_WB	091817	08:31	X			X	X	X	X				
6	ES-13_17ET719_091817_TOM_06_W3	091817	08:41	X			X	X	X	X				
7	ES-13_17ET722_091817_TOM_07_WB	091817	09:16	X			X	X	X	X				
8	ES-13_17ET722_091817_TOM_08_WB	091817	08:54	X			X	X	X	X				
9	ES-13_17ET723_091817_TOM_09_WB	091817	08:59	X			X	X	X	X				
10	ES-13_17ET724_091817_TOM_10_WB	091817	09:00	X			X	X	X	X				
11	ES-13_17ET747_091817_TOM_11_WB	091817	08:13	X			X	X	X	X				
12														
13														
14														
15														
16														
17														
18														
19														
20														
Turnaround Time Requested (TAT) (please check):				Standard <input type="checkbox"/>		Rush <input checked="" type="checkbox"/>		Relinquished by: <i>[Signature]</i>		Date: 9/20/17	Time: 1600	Received by:	Date:	Time:
(Rush TAT is subject to laboratory approval and surcharges.)								Relinquished by:		Date:	Time:	Received by:	Date:	Time:
Notes:								Relinquished by:		Date:	Time:	Received by:	Date:	Time:
Fax # _____ 8103 4444 4046 _____ # of Coolers _____ Sample disposal - Ho equipment tanks 1-4 until 90 days after delivery of report Report and EDD to: den.se.king@mechv.com / 975-092-0033								Relinquished by:		Date:	Time:	Received by:	Date:	Time:
Data Package Options (please check if required):				High <input type="checkbox"/>		Standard <input checked="" type="checkbox"/>		Relinquished by Commercial Carrier:						
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				If yes format: _____		UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other _____		Temperature upon receipt _____ °C						



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

ES-13_17LT012_091317_TOM_01_WB
1709615-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	226	1.60	14.3	ng/g	400	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	
---------	-----	------	------	------	-----	---------	-----------	---------	-----------	-----------	--



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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

ES-13_17ET718_091817_TOM_02_WB
1709615-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	114	1.65	14.8	ng/g	400	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

ES-13_17ET719_091817_TOM_03_WB
1709615-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	52.8	1.61	14.3	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

ES-13_17ET719_091817_TOM_04_WB
1709615-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	36.0	1.71	15.3	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	



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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

ES-13_17ET719_091817_TOM_05_WB
1709615-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	45.5	1.58	14.1	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

ES-13_17ET719_091817_TOM_06_WB
1709615-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	32.7	0.412	3.68	ng/g	100	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

ES-13_17ET722_091817_TOM_07_WB
1709615-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	52.2	1.75	15.6	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	



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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

ES-13_17ET722_091817_TOM_08_WB
1709615-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	60.2	1.67	14.9	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	

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271 Mill Road
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Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

ES-13_17ET723_091817_TOM_09_WB
1709615-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	239	1.74	15.6	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	

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Reported:
13-Oct-17 12:42

ES-13_17ET723_091817_TOM_10_WB
1709615-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	209	1.74	15.6	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

ES-13_17ET717_091817_TOM_11_WB
1709615-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	172	1.76	15.7	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	

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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J09010 - F710204											
Cal Standard (7J09010-CAL1) Prepared & Analyzed: 06-Oct-17											
Mercury	0.520	-		ng/L	0.50100		104				
Cal Standard (7J09010-CAL2) Prepared & Analyzed: 06-Oct-17											
Mercury	1.027	-		ng/L	1.0020		103				
Cal Standard (7J09010-CAL3) Prepared & Analyzed: 06-Oct-17											
Mercury	4.852	-		ng/L	5.0100		96.8				
Cal Standard (7J09010-CAL4) Prepared & Analyzed: 06-Oct-17											
Mercury	19.52	-		ng/L	20.040		97.4				
Cal Standard (7J09010-CAL5) Prepared & Analyzed: 06-Oct-17											
Mercury	39.46	-		ng/L	40.080		98.5				
Calibration Blank (7J09010-CCB1) Prepared & Analyzed: 06-Oct-17											
Mercury	0.070	-		ng/L							
Calibration Blank (7J09010-CCB2) Prepared & Analyzed: 06-Oct-17											
Mercury	0.056	-		ng/L							
Calibration Blank (7J09010-CCB3) Prepared & Analyzed: 06-Oct-17											
Mercury	0.056	-		ng/L							
Calibration Blank (7J09010-CCB4) Prepared & Analyzed: 06-Oct-17											
Mercury	0.049	-		ng/L							
Calibration Blank (7J09010-CCB5) Prepared & Analyzed: 06-Oct-17											
Mercury	0.123	-		ng/L							

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J09010 - F710204											
Calibration Blank (7J09010-CCB6) Prepared & Analyzed: 06-Oct-17											
Mercury	0.107	-		ng/L							
Calibration Blank (7J09010-CCB7) Prepared & Analyzed: 06-Oct-17											
Mercury	0.196	-		ng/L							
Calibration Check (7J09010-CCV1) Prepared & Analyzed: 06-Oct-17											
Mercury	4.749	-		ng/L	5.0000		95.0	77-123			
Calibration Check (7J09010-CCV2) Prepared & Analyzed: 06-Oct-17											
Mercury	4.751	-		ng/L	5.0000		95.0	77-123			
Calibration Check (7J09010-CCV3) Prepared & Analyzed: 06-Oct-17											
Mercury	4.551	-		ng/L	5.0000		91.0	77-123			
Calibration Check (7J09010-CCV4) Prepared & Analyzed: 06-Oct-17											
Mercury	4.659	-		ng/L	5.0000		93.2	77-123			
Calibration Check (7J09010-CCV5) Prepared & Analyzed: 06-Oct-17											
Mercury	4.715	-		ng/L	5.0000		94.3	77-123			
Calibration Check (7J09010-CCV6) Prepared & Analyzed: 06-Oct-17											
Mercury	4.755	-		ng/L	5.0000		95.1	77-123			
Calibration Check (7J09010-CCV7) Prepared & Analyzed: 06-Oct-17											
Mercury	4.963	-		ng/L	5.0000		99.3	77-123			
Instrument Blank (7J09010-IBL1) Prepared & Analyzed: 06-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J09010 - F710204

Instrument Blank (7J09010-IBL2)				Prepared & Analyzed: 06-Oct-17							
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J09010-IBL3)				Prepared & Analyzed: 06-Oct-17							
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7J09010-ICV1)				Prepared & Analyzed: 06-Oct-17							
Mercury	4.849	-		ng/L	5.0000		97.0	79-121			

Batch 7J09011 - F710207

Cal Standard (7J09011-CAL1)				Prepared & Analyzed: 06-Oct-17							
Mercury	0.462	-		ng/L	0.50100		92.1				
Cal Standard (7J09011-CAL2)				Prepared & Analyzed: 06-Oct-17							
Mercury	1.004	-		ng/L	1.0020		100				
Cal Standard (7J09011-CAL3)				Prepared & Analyzed: 06-Oct-17							
Mercury	4.950	-		ng/L	5.0100		98.8				
Cal Standard (7J09011-CAL4)				Prepared & Analyzed: 06-Oct-17							
Mercury	20.51	-		ng/L	20.040		102				
Cal Standard (7J09011-CAL5)				Prepared & Analyzed: 06-Oct-17							
Mercury	42.29	-		ng/L	40.080		106				
Calibration Blank (7J09011-CCB1)				Prepared & Analyzed: 06-Oct-17							
Mercury	0.199	-		ng/L							

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Project Number: 3616166052.04A.4A055
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Reported:
13-Oct-17 12:42

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J09011 - F710207

Calibration Blank (7J09011-CCB2)												Prepared & Analyzed: 06-Oct-17
Mercury	0.207	-		ng/L								
Calibration Blank (7J09011-CCB3)												Prepared & Analyzed: 06-Oct-17
Mercury	0.158	-		ng/L								
Calibration Blank (7J09011-CCB4)												Prepared & Analyzed: 06-Oct-17
Mercury	0.091	-		ng/L								
Calibration Blank (7J09011-CCB5)												Prepared & Analyzed: 06-Oct-17
Mercury	0.117	-		ng/L								
Calibration Blank (7J09011-CCB6)												Prepared & Analyzed: 06-Oct-17
Mercury	0.176	-		ng/L								
Calibration Blank (7J09011-CCB7)												Prepared & Analyzed: 06-Oct-17
Mercury	0.252	-		ng/L								
Calibration Check (7J09011-CCV1)												Prepared & Analyzed: 06-Oct-17
Mercury	5.373	-		ng/L	5.0000		107	77-123				
Calibration Check (7J09011-CCV2)												Prepared & Analyzed: 06-Oct-17
Mercury	5.385	-		ng/L	5.0000		108	77-123				
Calibration Check (7J09011-CCV3)												Prepared & Analyzed: 06-Oct-17
Mercury	5.138	-		ng/L	5.0000		103	77-123				
Calibration Check (7J09011-CCV4)												Prepared & Analyzed: 06-Oct-17
Mercury	4.841	-		ng/L	5.0000		96.8	77-123				

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.4A055 Project Manager: Denise King	Reported: 13-Oct-17 12:42
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J09011 - F710207

Calibration Check (7J09011-CCV5) Prepared & Analyzed: 06-Oct-17

Mercury	4.935	-		ng/L	5.0000		98.7	77-123			
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Calibration Check (7J09011-CCV6) Prepared & Analyzed: 06-Oct-17

Mercury	4.923	-		ng/L	5.0000		98.5	77-123			
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Calibration Check (7J09011-CCV7) Prepared & Analyzed: 06-Oct-17

Mercury	5.131	-		ng/L	5.0000		103	77-123			
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Instrument Blank (7J09011-IBL1) Prepared & Analyzed: 06-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J09011-IBL2) Prepared & Analyzed: 06-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J09011-IBL3) Prepared & Analyzed: 06-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7J09011-ICV1) Prepared & Analyzed: 06-Oct-17

Mercury	5.469	-		ng/L	5.0000		109	79-121			
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Batch F710204 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710204-BLK1) Prepared: 03-Oct-17 Analyzed: 06-Oct-17

Mercury	0.204	0.090	0.800	ng/g							J
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Blank (F710204-BLK2) Prepared: 03-Oct-17 Analyzed: 06-Oct-17

Mercury	0.134	0.090	0.800	ng/g							J
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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710204 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710204-BLK3)				Prepared: 03-Oct-17 Analyzed: 06-Oct-17								
Mercury	0.141	0.090	0.800	ng/g							J	
Blank (F710204-BLK4)				Prepared: 03-Oct-17 Analyzed: 06-Oct-17								
Mercury	ND	0.079	0.704	ng/g							F-03, U	
Blank (F710204-BLK5)				Prepared: 03-Oct-17 Analyzed: 06-Oct-17								
Mercury	ND	0.085	0.755	ng/g							F-03, U	
LCS (F710204-BS1)				Prepared: 03-Oct-17 Analyzed: 06-Oct-17								
Mercury	7.229	0.090	0.800	ng/g	8.0160		90.2	75-125				
LCS (F710204-BS2)				Prepared: 03-Oct-17 Analyzed: 06-Oct-17								
Mercury	331.0	3.50	31.2	ng/g	373.70		88.6	75-125				
LCS Dup (F710204-BSD1)				Prepared: 03-Oct-17 Analyzed: 06-Oct-17								
Mercury	7.582	0.090	0.800	ng/g	8.0160		94.6	75-125	4.76	24		
Duplicate (F710204-DUP1)				Source: 1709614-02				Prepared: 03-Oct-17 Analyzed: 06-Oct-17				
Mercury	374.4	1.65	14.7	ng/g		382.5			2.15	24		
Matrix Spike (F710204-MS1)				Source: 1709614-01				Prepared: 03-Oct-17 Analyzed: 06-Oct-17				
Mercury	591.4	1.61	14.4	ng/g	359.71	273.5	88.4	71-125				
Matrix Spike (F710204-MS2)				Source: 1709614-02				Prepared: 03-Oct-17 Analyzed: 06-Oct-17				
Mercury	695.8	1.62	14.5	ng/g	362.32	382.5	86.5	71-125				
Matrix Spike Dup (F710204-MSD1)				Source: 1709614-01				Prepared: 03-Oct-17 Analyzed: 06-Oct-17				
Mercury	606.3	1.72	15.4	ng/g	384.62	273.5	86.5	71-125	2.12	24		

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.4A055 Project Manager: Denise King	Reported: 13-Oct-17 12:42
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710204 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F710204-MSD2)		Source: 1709614-02			Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	712.6	1.64	14.7	ng/g	366.30	382.5	90.1	71-125	4.16	24	

Batch F710207 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710207-BLK1)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	0.333	0.090	0.800	ng/g							J

Blank (F710207-BLK2)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	0.268	0.090	0.800	ng/g							J

Blank (F710207-BLK3)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	0.166	0.090	0.800	ng/g							J

Blank (F710207-BLK4)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	ND	0.086	0.769	ng/g							F-03, U

Blank (F710207-BLK5)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	ND	0.079	0.709	ng/g							F-03, U

LCS (F710207-BS1)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	7.843	0.090	0.800	ng/g	8.0160		97.8	75-125			

LCS (F710207-BS2)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	378.4	3.46	30.9	ng/g	373.70		101	75-125			

LCS Dup (F710207-BSD1)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	8.231	0.090	0.800	ng/g	8.0160		103	75-125	4.83	24	

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710207 - EFGS-011 Nitric/Sulfuric Hg Digestion

Duplicate (F710207-DUP1)		Source: 1709615-02			Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	110.4	1.76	15.7	ng/g		114.0			3.22	24	
Matrix Spike (F710207-MS1)		Source: 1709615-02			Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	458.0	1.64	14.7	ng/g	366.30	114.0	93.9	71-125			
Matrix Spike (F710207-MS2)		Source: 1709617-01RE1			Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	345.5	1.59	14.2	ng/g	355.87	5.173	95.6	71-125			
Matrix Spike Dup (F710207-MSD1)		Source: 1709615-02			Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	475.1	1.72	15.4	ng/g	384.62	114.0	93.9	71-125	0.0318	24	
Matrix Spike Dup (F710207-MSD2)		Source: 1709617-01RE1			Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	340.9	1.56	13.9	ng/g	347.22	5.173	96.7	71-125	1.11	24	

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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:42

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26002-171006-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 06, 2017

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7J09009, 7J09010

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	101.15 units	202.30	94.85 units	189.71	104.0 %Rec
SEQ-CAL2	1	1.00 ng/L	193.78 units	193.78	187.48 units	187.48	102.7 %Rec
SEQ-CAL3	1	5.00 ng/L	891.63 units	178.33	885.33 units	177.07	97.0 %Rec
SEQ-CAL4	1	20.00 ng/L	3568.39 units	178.42	3562.09 units	178.10	97.6 %Rec
SEQ-CAL5	1	40.00 ng/L	7206.72 units	180.17	7200.42 units	180.01	98.6 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
182.47	+/- 5.74	3.1% RSD	186.60

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.30 units	±4.41	0.03 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.030 ng/L	±0.017
BLK	2	1	0.520 ng/L	
BLK	3	3	1.995 ng/L	±0.479
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: DM 10/9/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-IBL1	1	10/6/2017 8:11:31	86717-1.RAW	8:11:31 AM	1.21			-5.1	-0.028	-0.028	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	10/6/2017 8:15:39	86718-1.RAW	8:15:39 AM	9.10			2.8	0.015	0.015	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	10/6/2017 8:19:48	86719-1.RAW	8:19:48 AM	8.58			2.3	0.013	0.013	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	10/6/2017 8:23:56	86720-1.RAW	8:23:56 AM	101.15			94.9	0.520	0.520	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	10/6/2017 8:28:05	86721-1.RAW	8:28:05 AM	193.78			187.5	1.027	1.027	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	10/6/2017 8:32:13	86722-1.RAW	8:32:13 AM	891.63			885.3	4.852	4.852	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	10/6/2017 8:36:22	86723-1.RAW	8:36:22 AM	3568.39			3562.1	19.521	19.521	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	10/6/2017 8:40:30	86724-1.RAW	8:40:30 AM	7206.72			7200.4	39.460	39.460	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	10/6/2017 8:44:38	86725-1.RAW	8:44:38 AM	891.20			884.9	4.849	4.849	ng/L	
Hg2600-2	BC	SAM	ws		10/6/2017 9:04:31	86726-1.RAW	9:04:31 AM	71.78		x	65.5	0.359	0.000	ng/L	
Hg2600-2	BC	BLK	F710248-BLK1	1	10/6/2017 9:08:40	86727-1.RAW	9:08:40 AM	10.63	1		4.3	0.024	0.024	ng/L	
Hg2600-2	BC	BLK	F710248-BLK2	1	10/6/2017 9:12:48	86728-1.RAW	9:12:48 AM	15.15	1		8.9	0.049	0.049	ng/L	
Hg2600-2	BC	BLK	F710248-BLK3	1	10/6/2017 9:16:56	86729-1.RAW	9:16:56 AM	9.35	1		3.1	0.017	0.017	ng/L	
Hg2600-2	BC	BLK	F710248-BLK4	10	10/6/2017 9:21:05	86730-1.RAW	9:21:05 AM	15.78	2		9.5	0.052	0.520	ng/L	
Hg2600-2	BC	SAM	F710248-BS1	1	10/6/2017 9:25:13	86731-1.RAW	9:25:13 AM	2765.38	1		2759.1	15.091	15.091	ng/L	
Hg2600-2	BC	SAM	F710248-BSD1	1	10/6/2017 9:29:22	86732-1.RAW	9:29:22 AM	2744.00	1		2737.7	14.974	14.974	ng/L	
Hg2600-2	BC	SAM	1709709-01	1	10/6/2017 9:33:30	86733-1.RAW	9:33:30 AM	27.56	1		21.3	0.087	0.087	ng/L	
Hg2600-2	BC	SAM	1709709-02	1	10/6/2017 9:37:39	86734-1.RAW	9:37:39 AM	27.79	1		21.5	0.088	0.088	ng/L	
Hg2600-2	BC	SAM	1709709-03	1	10/6/2017 9:41:47	86735-1.RAW	9:41:47 AM	327.18	1		320.9	1.729	1.729	ng/L	
Hg2600-2	BC	SAM	1709709-04	1	10/6/2017 9:45:55	86736-1.RAW	9:45:55 AM	159.41	1		153.1	0.809	0.809	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	10/6/2017 9:50:04	86737-1.RAW	9:50:04 AM	872.91			866.6	4.749	4.749	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	10/6/2017 9:54:12	86738-1.RAW	9:54:12 AM	19.13			12.8	0.070	0.070	ng/L	
Hg2600-2	BC	SAM	1709709-05	1	10/6/2017 9:58:21	86739-1.RAW	9:58:21 AM	183.70	1		177.4	0.943	0.943	ng/L	
Hg2600-2	BC	SAM	1709709-06	1	10/6/2017 10:02:29	86740-1.RAW	10:02:29 AM	105.44	1		99.1	0.514	0.514	ng/L	
Hg2600-2	BC	SAM	1710042-01	1	10/6/2017 10:06:38	86741-1.RAW	10:06:38 AM	13.58	1		7.3	0.010	0.010	ng/L	
Hg2600-2	BC	SAM	1710142-01	1	10/6/2017 10:10:46	86742-1.RAW	10:10:46 AM	402.56	1		396.3	2.142	2.142	ng/L	
Hg2600-2	BC	SAM	1710142-02	1	10/6/2017 10:14:54	86743-1.RAW	10:14:54 AM	55.33	1		49.0	0.239	0.239	ng/L	
Hg2600-2	BC	SAM	1710142-03	1	10/6/2017 10:19:03	86744-1.RAW	10:19:03 AM	423.00	1		416.7	2.254	2.254	ng/L	
Hg2600-2	BC	SAM	1710142-04	1	10/6/2017 10:23:11	86745-1.RAW	10:23:11 AM	52.92	1		46.6	0.226	0.226	ng/L	
Hg2600-2	BC	SAM	1710142-05	10	10/6/2017 10:27:20	86746-1.RAW	10:27:20 AM	203.49	2		197.2	1.029	10.287	ng/L	
Hg2600-2	BC	SAM	1710142-06	1	10/6/2017 10:31:28	86747-1.RAW	10:31:28 AM	53.23	1		46.9	0.228	0.228	ng/L	
Hg2600-2	BC	SAM	1710143-01	1	10/6/2017 10:35:36	86748-1.RAW	10:35:36 AM	107.58	1		101.3	0.525	0.525	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	10/6/2017 10:39:45	86749-1.RAW	10:39:45 AM	873.27			867.0	4.751	4.751	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	10/6/2017 10:43:53	86750-1.RAW	10:43:53 AM	16.56			10.3	0.056	0.056	ng/L	
Hg2600-2	BC	SAM	1710143-02	1	10/6/2017 10:48:02	86751-1.RAW	10:48:02 AM	102.18	1		95.9	0.496	0.496	ng/L	
Hg2600-2	BC	SAM	1710143-03	1	10/6/2017 10:52:10	86752-1.RAW	10:52:10 AM	115.58	1		109.3	0.569	0.569	ng/L	
Hg2600-2	BC	SAM	1710143-04	1	10/6/2017 10:56:18	86753-1.RAW	10:56:18 AM	155.17	1		148.9	0.786	0.786	ng/L	
Hg2600-2	BC	SAM	1710143-05	1	10/6/2017 11:00:27	86754-1.RAW	11:00:27 AM	225.21	1		218.9	1.170	1.170	ng/L	
Hg2600-2	BC	SAM	1710143-06	1	10/6/2017 11:04:35	86755-1.RAW	11:04:35 AM	89.74	1		83.4	0.428	0.428	ng/L	
Hg2600-2	BC	SAM	F710248-DUP1	1	10/6/2017 11:08:44	86756-1.RAW	11:08:44 AM	323.94	1		317.6	1.711	1.711	ng/L	
Hg2600-2	BC	SAM	F710248-MS1	1	10/6/2017 11:12:52	86757-1.RAW	11:12:52 AM	1160.78	1		1154.5	6.297	6.297	ng/L	
Hg2600-2	BC	SAM	F710248-MSD1	1	10/6/2017 11:17:01	86758-1.RAW	11:17:01 AM	1157.67	1		1151.4	6.280	6.280	ng/L	
Hg2600-2	BC	SAM	F710248-MS2	1	10/6/2017 11:21:09	86759-1.RAW	11:21:09 AM	1277.71	1		1271.4	6.938	6.938	ng/L	
Hg2600-2	BC	SAM	F710248-MSD2	1	10/6/2017 11:25:17	86760-1.RAW	11:25:17 AM	1246.41	1		1240.1	6.766	6.766	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	10/6/2017 11:29:26	86761-1.RAW	11:29:26 AM	836.69			830.4	4.551	4.551	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	10/6/2017 11:33:34	86762-1.RAW	11:33:34 AM	16.57			10.3	0.056	0.056	ng/L	
Hg2600-2	BC	SAM	EFGS06396 TV 50ng	100	10/6/2017 11:37:43	86763-1.RAW	11:37:43 AM	806.07	x		799.8	4.383	438.293	ng/L	
Hg2600-2	BC	SAM	EFGS17786 TV 50ng	100	10/6/2017 11:41:51	86764-1.RAW	11:41:51 AM	840.87	x		834.6	4.574	457.365	ng/L	
Hg2600-2	BC	SAM	EFGS18673 TV 100ng	100	10/6/2017 11:46:00	86765-1.RAW	11:46:00 AM	1648.48	x		1642.2	9.000	899.953	ng/L	
Hg2600-2	BC	SAM	EFGS03004 TV 100ng	100	10/6/2017 11:50:08	86766-1.RAW	11:50:08 AM	1698.18	x		1691.9	9.272	927.190	ng/L	
Hg2600-2	BC	BLK	F710204-BLK1	20	10/6/2017 11:54:16	86767-1.RAW	11:54:16 AM	29.52	3		23.2	0.127	2.545	ng/L	
Hg2600-2	BC	BLK	F710204-BLK2	20	10/6/2017 11:58:25	86768-1.RAW	11:58:25 AM	21.60	3		15.3	0.084	1.677	ng/L	
Hg2600-2	BC	BLK	F710204-BLK3	20	10/6/2017 12:02:33	86769-1.RAW	12:02:33 PM	22.37	3		16.1	0.088	1.762	ng/L	
Hg2600-2	BC	SAM	*F710204-BLK4	20	10/6/2017 12:06:42	86770-1.RAW	12:06:42 PM	22.42	3		16.1	-0.011	-0.228	ng/L	
Hg2600-2	BC	SAM	*F710204-BLK5	20	10/6/2017 12:10:50	86771-1.RAW	12:10:50 PM	17.98	3		11.7	-0.036	-0.714	ng/L	
Hg2600-2	BC	SAM	F710204-BS1	20	10/6/2017 12:14:58	86772-1.RAW	12:14:58 PM	848.96	3		842.7	4.518	90.365	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	10/6/2017 12:19:07	86773-1.RAW	12:19:07 PM	856.45			850.2	4.659	4.659	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hg2600-2	BC	CAL	SEQ-CCB4	1	10/6/2017 12:23:15	86774-1.RAW	12:23:15 PM	15.28			9.0	0.049	0.049	ng/L	
Hg2600-2	BC	SAM	F710204-BSD1	20	10/6/2017 12:27:24	86775-1.RAW	12:27:24 PM	889.19	3		882.9	4.739	94.774	ng/L	
Hg2600-2	BC	SAM	F710204-BS2	400	10/6/2017 12:31:32	86776-1.RAW	12:31:32 PM	973.45	3		967.2	5.295	2118.091	ng/L	
Hg2600-2	BC	SAM	WS		10/6/2017 12:40:48	86777-1.RAW	12:40:48 PM	43.36		x	37.1	0.203	0.000	ng/L	
Hg2600-2	BC	SAM	1709614-01	400	10/6/2017 12:44:56	86778-1.RAW	12:44:56 PM	1735.42	3		1729.1	9.471	3788.397	ng/L	
Hg2600-2	BC	SAM	WS		10/6/2017 12:58:28	86779-1.RAW	12:58:28 PM	52.13		x	45.8	0.251	0.000	ng/L	
Hg2600-2	BC	SAM	1709614-02	400	10/6/2017 13:02:36	86780-1.RAW	1:02:36 PM	2397.66	3		2391.4	13.100	5240.085	ng/L	
Hg2600-2	BC	SAM	1709614-15	400	10/6/2017 13:06:45	86781-1.RAW	1:06:45 PM	510.49	3		504.2	2.758	1103.242	ng/L	
Hg2600-2	BC	SAM	1709614-16	400	10/6/2017 13:10:53	86782-1.RAW	1:10:53 PM	479.54	3		473.2	2.588	1035.396	ng/L	
Hg2600-2	BC	SAM	1709614-17	400	10/6/2017 13:15:02	86783-1.RAW	1:15:02 PM	392.58	3		386.3	2.112	844.772	ng/L	
Hg2600-2	BC	SAM	1709614-18	400	10/6/2017 13:19:10	86784-1.RAW	1:19:10 PM	802.55	3		796.3	4.359	1743.463	ng/L	
Hg2600-2	BC	SAM	1709614-19	400	10/6/2017 13:23:19	86785-1.RAW	1:23:19 PM	933.95	3		927.7	5.079	2031.503	ng/L	
Hg2600-2	BC	SAM	1709614-20	400	10/6/2017 13:27:27	86786-1.RAW	1:27:27 PM	1061.41	3		1055.1	5.777	2310.907	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	10/6/2017 13:31:35	86787-1.RAW	1:31:35 PM	866.66			860.4	4.715	4.715	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	10/6/2017 13:35:44	86788-1.RAW	1:35:44 PM	28.68			22.4	0.123	0.123	ng/L	
Hg2600-2	BC	SAM	1709615-03	400	10/6/2017 13:39:52	86789-1.RAW	1:39:52 PM	343.15	3		336.9	1.841	736.418	ng/L	
Hg2600-2	BC	SAM	1709615-04	400	10/6/2017 13:44:01	86790-1.RAW	1:44:01 PM	222.38	3		216.1	1.179	471.679	ng/L	
Hg2600-2	BC	SAM	1709615-05	400	10/6/2017 13:48:09	86791-1.RAW	1:48:09 PM	301.63	3		295.3	1.614	645.402	ng/L	
Hg2600-2	BC	SAM	1709615-06	400	10/6/2017 13:52:18	86792-1.RAW	1:52:18 PM	205.95	3		199.7	1.089	435.663	ng/L	
Hg2600-2	BC	SAM	1709615-07	400	10/6/2017 13:56:26	86793-1.RAW	1:56:26 PM	311.91	3		305.6	1.670	667.937	ng/L	
Hg2600-2	BC	SAM	1709615-08	400	10/6/2017 14:00:34	86794-1.RAW	2:00:34 PM	376.45	3		370.2	2.024	809.414	ng/L	
Hg2600-2	BC	SAM	1709615-09	400	10/6/2017 14:04:43	86795-1.RAW	2:04:43 PM	1410.33	3		1404.0	7.689	3075.771	ng/L	
Hg2600-2	BC	SAM	1709615-10	400	10/6/2017 14:08:51	86796-1.RAW	2:08:51 PM	1234.81	3		1228.5	6.728	2691.015	ng/L	
Hg2600-2	BC	SAM	1709615-11	400	10/6/2017 14:13:00	86797-1.RAW	2:13:00 PM	1007.00	3		1000.7	5.479	2191.635	ng/L	
Hg2600-2	BC	SAM	1709616-01	400	10/6/2017 14:17:08	86798-1.RAW	2:17:08 PM	232.80	3		226.5	1.236	494.521	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	10/6/2017 14:21:16	86799-1.RAW	2:21:16 PM	874.04			867.7	4.755	4.755	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	10/6/2017 14:25:25	86800-1.RAW	2:25:25 PM	25.74			19.4	0.107	0.107	ng/L	
Hg2600-2	BC	SAM	1709617-02	20	10/6/2017 14:29:33	86801-1.RAW	2:29:33 PM	1061.97	3		1055.7	5.686	113.712	ng/L	
Hg2600-2	BC	SAM	1709617-03	20	10/6/2017 14:33:42	86802-1.RAW	2:33:42 PM	644.66	3		638.4	3.399	67.973	ng/L	
Hg2600-2	BC	SAM	1709615-06RE1	100	10/6/2017 14:37:50	86803-1.RAW	2:37:50 PM	822.04	3		815.7	4.451	445.051	ng/L	
Hg2600-2	BC	SAM	F710204-DUP1	400	10/6/2017 14:41:59	86804-1.RAW	2:41:59 PM	2329.77	3		2323.5	12.728	5091.264	ng/L	
Hg2600-2	BC	SAM	F710204-MS1	400	10/6/2017 14:46:07	86805-1.RAW	2:46:07 PM	3757.48	3		3751.2	20.552	8220.931	ng/L	
Hg2600-2	BC	SAM	F710204-MSD1	400	10/6/2017 14:50:15	86806-1.RAW	2:50:15 PM	3602.95	3		3596.7	19.705	7882.188	ng/L	
Hg2600-2	BC	SAM	F710204-MS2	400	10/6/2017 14:54:24	86807-1.RAW	2:54:24 PM	4387.25	3		4381.0	24.004	9601.443	ng/L	
Hg2600-2	BC	SAM	F710204-MSD2	400	10/6/2017 14:58:32	86808-1.RAW	2:58:32 PM	4444.82	3		4438.5	24.319	9727.641	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	10/6/2017 15:02:41	86809-1.RAW	3:02:41 PM	911.85			905.6	4.963	4.963	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	10/6/2017 15:06:49	86810-1.RAW	3:06:49 PM	42.06			35.8	0.196	0.196	ng/L	

TotalMercury EPA1631
 Operati BC
 BlankS: 6.2943
 Calib Eqn: Conc = (Area-6.294
 Run Date: 10/6/2017
 Blank SD: 4.410430011
 Worksh THg260(CalibFa 182.47
 Status: QC Warnings:4/QC E
 Run Time: 12:54:19
 Blank RSD%: 70.07057723
 Method ##### R: 1
 R²: 1
 CF SD: 5.739273964
 CF RSD%: 3.14524882
 Descrip THg26002-171006-1

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	5.10					86712-1.RAW	7:52:06	931.51	Clean	OK	1
clean				0.00	0.02					86713-1.RAW	7:54:57	3.62	Clean	OK	1
ws				6.29	0.03					86714-1.RAW	7:59:06	11.25	Sample	OK	1
ws				6.29	0.00					86715-1.RAW	8:03:14	5.17	Sample	OK	1
ws				6.29	0.01					86716-1.RAW	8:07:23	7.33	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.01					86717-1.RAW	8:11:31	1.21	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.05					86718-1.RAW	8:15:39	9.10	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					86719-1.RAW	8:19:48	8.58	Sample	OK	1
SEQ-CAL1	A4		1	6.29	0.52			103.96		86720-1.RAW	8:23:56	101.15	Sample	OK	1
SEQ-CAL2	A5		1	6.29	1.03			102.75		86721-1.RAW	8:28:05	193.78	Sample	OK	1
SEQ-CAL3	A6		1	6.29	4.85			97.04		86722-1.RAW	8:32:13	891.63	Sample	OK	1
SEQ-CAL4	A7		1	6.29	19.52			97.61		86723-1.RAW	8:36:22	3568.39	Sample	OK	1
SEQ-CAL5	A8		1	6.29	39.46			98.65		86724-1.RAW	8:40:30	7206.72	Sample	OK	1
SEQ-ICV1	A9		1	6.29	4.85			96.99		86725-1.RAW	8:44:38	891.20	Sample	OK	1
ws				6.29	0.36					86726-1.RAW	9:04:31	71.78	Sample	OK	1
F710248-BLK1	A10		1	6.29	0.02					86727-1.RAW	9:08:40	10.63	Sample	OK	1
F710248-BLK2	A11		1	6.29	0.05					86728-1.RAW	9:12:48	15.15	Sample	OK	1
F710248-BLK3	A12		1	6.29	0.02					86729-1.RAW	9:16:56	9.35	Sample	OK	1
F710248-BLK4	A13		10	6.29	0.52					86730-1.RAW	9:21:05	15.78	Sample	OK	1
F710248-BS1	A14		1	6.29	15.12					86731-1.RAW	9:25:13	2765.38	Sample	OK	1
F710248-BSD1	A15		1	6.29	15.00					86732-1.RAW	9:29:22	2744.00	Sample	OK	1
1709709-01	A16		1	6.29	0.12					86733-1.RAW	9:33:30	27.56	Sample	OK	1
1709709-02	A17		1	6.29	0.12					86734-1.RAW	9:37:39	27.79	Sample	OK	1
1709709-03	A18		1	6.29	1.76					86735-1.RAW	9:41:47	327.18	Sample	OK	1
1709709-04	A19		1	6.29	0.84					86736-1.RAW	9:45:55	159.41	Sample	OK	1
SEQ-CCV1	A20		1	6.29	4.75			94.98		86737-1.RAW	9:50:04	872.91	Sample	OK	1
SEQ-CCB1	A21		1	6.29	0.07			0.00		86738-1.RAW	9:54:12	19.13	Sample	OK	1
1709709-05	B1		1	6.29	0.97					86739-1.RAW	9:58:21	183.70	Sample	OK	1
1709709-06	B2		1	6.29	0.54					86740-1.RAW	10:02:29	105.44	Sample	OK	1
1710042-01	B3		1	6.29	0.04					86741-1.RAW	10:06:38	13.58	Sample	OK	1
1710142-01	B4		1	6.29	2.17					86742-1.RAW	10:10:46	402.56	Sample	OK	1
1710142-02	B5		1	6.29	0.27					86743-1.RAW	10:14:54	55.33	Sample	OK	1
1710142-03	B6		1	6.29	2.28					86744-1.RAW	10:19:03	423.00	Sample	OK	1
1710142-04	B7		1	6.29	0.26					86745-1.RAW	10:23:11	52.92	Sample	OK	1
1710142-05	B8		10	6.29	10.81					86746-1.RAW	10:27:20	203.49	Sample	OK	1
1710142-06	B9		1	6.29	0.26					86747-1.RAW	10:31:28	53.23	Sample	OK	1
1710143-01	B10		1	6.29	0.56					86748-1.RAW	10:35:36	107.58	Sample	OK	1
SEQ-CCV2	B11		1	6.29	4.75			95.02		86749-1.RAW	10:39:45	873.27	Sample	OK	1
SEQ-CCB2	B12		1	6.29	0.06			0.00		86750-1.RAW	10:43:53	16.56	Sample	OK	1
1710143-02	B13		1	6.29	0.53					86751-1.RAW	10:48:02	102.18	Sample	OK	1
1710143-03	B14		1	6.29	0.60					86752-1.RAW	10:52:10	115.58	Sample	OK	1
1710143-04	B15		1	6.29	0.82					86753-1.RAW	10:56:18	155.17	Sample	OK	1
1710143-05	B16		1	6.29	1.20					86754-1.RAW	11:00:27	225.21	Sample	OK	1

1710143-06	B17	1	6.29	0.46		86755-1.RAW	11:04:35	89.74	Sample	OK	1
F710248-DUP1	B18	1	6.29	1.74		86756-1.RAW	11:08:44	323.94	Sample	OK	1
F710248-MS1	B19	1	6.29	6.33	230.84	86757-1.RAW	11:12:52	1160.78	Sample	OK	1
F710248-MSD1	B20	1	6.29	6.31		86758-1.RAW	11:17:01	1157.67	Sample	OK	1
F710248-MS2	B21	1	6.29	6.97	83.85	86759-1.RAW	11:21:09	1277.71	Sample	OK	1
F710248-MSD2	C1	1	6.29	6.80		86760-1.RAW	11:25:17	1246.41	Sample	OK	1
SEQ-CCV3	C2	1	6.29	4.55	91.02	86761-1.RAW	11:29:26	836.69	Sample	OK	1
SEQ-CCB3	C3	1	6.29	0.06	0.00	86762-1.RAW	11:33:34	16.57	Sample	OK	1
EFGS06396 TV !	C4	100	6.29	438.30		86763-1.RAW	11:37:43	806.07	Sample	OK	1
EFGS17786 TV !	C5	100	6.29	457.37		86764-1.RAW	11:41:51	840.87	Sample	OK	1
EFGS18673 TV	C6	100	6.29	899.96		86765-1.RAW	11:46:00	1648.48	Sample	OK	1
EFGS03004 TV	C7	100	6.29	927.19		86766-1.RAW	11:50:08	1698.18	Sample	OK	1
F710204-BLK1	C8	20	6.29	2.55		86767-1.RAW	11:54:16	29.52	Sample	OK	1
F710204-BLK2	C9	20	6.29	1.68		86768-1.RAW	11:58:25	21.60	Sample	OK	1
F710204-BLK3	C10	20	6.29	1.76		86769-1.RAW	12:02:33	22.37	Sample	OK	1
*F710204-BLK4	C11	20	6.29	1.77		86770-1.RAW	12:06:42	22.42	Sample	OK	1
*F710204-BLK5	C12	20	6.29	1.28		86771-1.RAW	12:10:50	17.98	Sample	OK	1
F710204-BS1	C13	20	6.29	92.36		86772-1.RAW	12:14:58	848.96	Sample	OK	1
SEQ-CCV4	C14	1	6.29	4.66	93.18	86773-1.RAW	12:19:07	856.45	Sample	OK	1
SEQ-CCB4	C15	1	6.29	0.05	0.00	86774-1.RAW	12:23:15	15.28	Sample	OK	1
F710204-BSD1	C16	20	6.29	96.77		86775-1.RAW	12:27:24	889.19	Sample	OK	1
F710204-BS2	C17	400	6.29	2120.09		86776-1.RAW	12:31:32	973.45	Sample	OK	1
WS			6.29	0.20		86777-1.RAW	12:40:48	43.36	Sample	OK	1
1709614-01	C18	400	6.29	3790.40		86778-1.RAW	12:44:56	1735.42	Sample	OK	1
WS			6.29	0.25		86779-1.RAW	12:58:28	52.13	Sample	OK	1
1709614-02	C19	400	6.29	5242.08		86780-1.RAW	13:02:36	2397.66	Sample	OK	1
1709614-15	C20	400	6.29	1105.23		86781-1.RAW	13:06:45	510.49	Sample	OK	1
1709614-16	C21	400	6.29	1037.39		86782-1.RAW	13:10:53	479.54	Sample	OK	1
1709614-17	A1	400	6.29	846.76		86783-1.RAW	13:15:02	392.58	Sample	OK	1
1709614-18	A2	400	6.29	1745.47		86784-1.RAW	13:19:10	802.55	Sample	OK	1
1709614-19	A3	400	6.29	2033.50		86785-1.RAW	13:23:19	933.95	Sample	OK	1
1709614-20	A4	400	6.29	2312.91		86786-1.RAW	13:27:27	1061.41	Sample	OK	1
SEQ-CCV5	A5	1	6.29	4.71	94.30	86787-1.RAW	13:31:35	866.66	Sample	OK	1
SEQ-CCB5	A6	1	6.29	0.12	0.00	86788-1.RAW	13:35:44	28.68	Sample	OK	1
1709615-03	A7	400	6.29	738.42		86789-1.RAW	13:39:52	343.15	Sample	OK	1
1709615-04	A8	400	6.29	473.68		86790-1.RAW	13:44:01	222.38	Sample	OK	1
1709615-05	A9	400	6.29	647.39		86791-1.RAW	13:48:09	301.63	Sample	OK	1
1709615-06	A10	400	6.29	437.66		86792-1.RAW	13:52:18	205.95	Sample	OK	1
1709615-07	A11	400	6.29	669.93		86793-1.RAW	13:56:26	311.91	Sample	OK	1
1709615-08	A12	400	6.29	811.41		86794-1.RAW	14:00:34	376.45	Sample	OK	1
1709615-09	A13	400	6.29	3077.77		86795-1.RAW	14:04:43	1410.33	Sample	OK	1
1709615-10	A14	400	6.29	2693.01		86796-1.RAW	14:08:51	1234.81	Sample	OK	1
1709615-11	A15	400	6.29	2193.65		86797-1.RAW	14:13:00	1007.00	Sample	OK	1
1709616-01	A16	400	6.29	496.52		86798-1.RAW	14:17:08	232.80	Sample	OK	1
SEQ-CCV6	A17	1	6.29	4.76	95.11	86799-1.RAW	14:21:16	874.04	Sample	OK	1
SEQ-CCB6	A18	1	6.29	0.11	0.00	86800-1.RAW	14:25:25	25.74	Sample	OK	1
1709617-02	A19	20	6.29	115.71		86801-1.RAW	14:29:33	1061.97	Sample	OK	1

1709617-03	A20	20	6.29	69.97		86802-1.RAW	14:33:42	644.66	Sample	OK	1
1709615-06RE1	A21	100	6.29	447.05		86803-1.RAW	14:37:50	822.04	Sample	OK	1
F710204-DUP1	B1	400	6.29	5093.26		86804-1.RAW	14:41:59	2329.77	Sample	OK	1
F710204-MS1	B2	400	6.29	8222.93	161.42	86805-1.RAW	14:46:07	3757.48	Sample	OK	1
F710204-MSD1	B3	400	6.29	7884.19		86806-1.RAW	14:50:15	3602.95	Sample	OK	1
F710204-MS2	B4	400	6.29	9603.45	121.78	86807-1.RAW	14:54:24	4387.25	Sample	OK	1
F710204-MSD2	B5	400	6.29	9729.64		86808-1.RAW	14:58:32	4444.82	Sample	OK	1
SEQ-CCV7	B6	1	6.29	4.96	99.25	86809-1.RAW	15:02:41	911.85	Sample	OK	1
SEQ-CCB7	B7	1	6.29	0.20	0.00	86810-1.RAW	15:06:49	42.06	Sample	OK	1
SnCl2 1705960	B8	1	6.29	0.07		86811-1.RAW	15:10:57	19.50	Sample	OK	1
CLEAN			0.00	0.02		86812-1.RAW	15:13:49	4.44	Clean	OK	1
CLEAN						86813-1.RAW	15:16:40	10.60	Clean	OK	1
WS						86814-1.RAW	15:20:49	24.57	Sample	OK	1
WS						86815-1.RAW	15:24:57	11.10	Sample	OK	1

Failing Data Report - 7J09010

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Becy 10/9/17
Analyst Reviewed By Date

Dan Maxam 10/9/17
Peer Reviewed By Date

ANALYSIS SEQUENCE

7J09009



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J09009-IBL1	QC	1			
7J09009-IBL2	QC	2			
7J09009-IBL3	QC	3			
7J09009-CAL1	QC	4	1704505		
7J09009-CAL2	QC	5	1704506		
7J09009-CAL3	QC	6	1704507		
7J09009-CAL4	QC	7	1704508		
7J09009-CAL5	QC	8	1704509		
7J09009-ICV1	QC	9	1705628		
F710248-BLK1	QC	10			
F710248-BLK2	QC	11			
F710248-BLK3	QC	12			
F710248-BLK4	QC	13			
F710248-BS1	QC	14			
F710248-BSD1	QC	15			
1709709-01	Hg-CVAFS-W-1631	16			
1709709-02	Hg-CVAFS-W-1631	17			
1709709-03	Hg-CVAFS-W-1631	18			
1709709-04	Hg-CVAFS-W-1631	19			
7J09009-CCV1	QC	20	1705628		
7J09009-CCB1	QC	21			
1709709-05	Hg-CVAFS-W-1631	22			
1709709-06	Hg-CVAFS-W-1631	23			
1710042-01	Hg-CVAFS-W-1631	24			Do not oven samples (CCV 90-110%, CCB <), <1/2 PQL
1710142-01	Hg-CVAFS-W-1631	25			
1710142-02	Hg-CVAFS-W-1631	26			
1710142-03	Hg-CVAFS-W-1631	27			
1710142-04	Hg-CVAFS-W-1631	28			
1710142-05	Hg-CVAFS-W-1631	29			
1710142-06	Hg-CVAFS-W-1631	30			
1710143-01	Hg-CVAFS-W-1631	31			Scan all data for level IV report
7J09009-CCV2	QC	32	1705628		
7J09009-CCB2	QC	33			
1710143-02	Hg-CVAFS-W-1631	34			Scan all data for level IV report
1710143-03	Hg-CVAFS-W-1631	35			Scan all data for level IV report

ANALYSIS SEQUENCE

7J09010

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J09010-IBL1	QC	1			
7J09010-IBL2	QC	2			
7J09010-IBL3	QC	3			
7J09010-CAL1	QC	4	1704505		
7J09010-CAL2	QC	5	1704506		
7J09010-CAL3	QC	6	1704507		
7J09010-CAL4	QC	7	1704508		
7J09010-CAL5	QC	8	1704509		
7J09010-ICV1	QC	9	1705628		
7J09010-CCV1	QC	10	1705628		
7J09010-CCB1	QC	11			
7J09010-CCV2	QC	12	1705628		
7J09010-CCB2	QC	13			
7J09010-CCV3	QC	14	1705628		
7J09010-CCB3	QC	15			
F710204-BLK1	QC	16			
F710204-BLK2	QC	17			
F710204-BLK3	QC	18			
F710204-BLK4	QC	19			
F710204-BLK5	QC	20			
F710204-BS1	QC	21			
7J09010-CCV4	QC	22	1705628		
7J09010-CCB4	QC	23			
F710204-BSD1	QC	24			
F710204-BS2	QC	25			
1709614-01	Hg-CVAFS-T-7030	26			
1709614-02	Hg-CVAFS-T-7030	27			
1709614-15	Hg-CVAFS-T-7030	28			
1709614-16	Hg-CVAFS-T-7030	29			
1709614-17	Hg-CVAFS-T-7030	30			
1709614-18	Hg-CVAFS-T-7030	31			
1709614-19	Hg-CVAFS-T-7030	32			
1709614-20	Hg-CVAFS-T-7030	33			
7J09010-CCV5	QC	34	1705628		
7J09010-CCB5	QC	35			

Due Date: 10/20/2017

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Page 1 of 2

ANALYSIS SEQUENCE

7J09010

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709615-03	Hg-CVAFS-T-7030	36			
1709615-04	Hg-CVAFS-T-7030	37			
1709615-05	Hg-CVAFS-T-7030	38			
1709615-06	Hg-CVAFS-T-7030	39			
1709615-07	Hg-CVAFS-T-7030	40			
1709615-08	Hg-CVAFS-T-7030	41			
1709615-09	Hg-CVAFS-T-7030	42			
1709615-10	Hg-CVAFS-T-7030	43			
1709615-11	Hg-CVAFS-T-7030	44			
1709616-01	Hg-CVAFS-T-7030	45			
7J09010-CCV6	QC	46	1705628		
7J09010-CCB6	QC	47			
1709617-02	Hg-CVAFS-T-7030	48			
1709617-03	Hg-CVAFS-T-7030	49			
1709615-06RE1	Hg-CVAFS-T-7030	50			Added 10/9/2017 by BC
F710204-DUP1	QC	51			
F710204-MS1	QC	52			
F710204-MSD1	QC	53			
F710204-MS2	QC	54			
F710204-MSD2	QC	55			
7J09010-CCV7	QC	56	1705628		
7J09010-CCB7	QC	57			

Beck 10/9/17
 Samples Loaded By Date

Beck 10/9/17
 Data Processed By Date

102nd rd
 10/6/17

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710248-BLK1	Blank	100	101					SOURCE 1710143-07
F710248-BLK2	Blank	100	101					SOURCE 1710143-07
F710248-BLK3	Blank	100	101					SOURCE 1710143-07
F710248-BLK4	Blank	10	20					
F710248-BS1	LCS	50	50.5	1705054	100			
F710248-BSD1	LCS Dup	50	50.5	1705054	100			
F710248-DUP1	Duplicate [1709709-03]	100	101					
F710248-MS1	Matrix Spike [1709709-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710248-MS2	Matrix Spike [1710142-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710248-MSD1	Matrix Spike Dup [1709709-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710248-MSD2	Matrix Spike Dup [1710142-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705054	Nist 1641D 200X	21-Aug-18 00:00	1705580	0.2 N BRCL SEPTEMBER 2017	14-Mar-18 00:00
			1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709709-01	OS-RB-20170921	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	
1709709-02	OS-RB-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	
1709709-03	NC376OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	
1709709-04	NC376OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	
1709709-05	NC377OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	
1709709-06	NC377OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	
1710042-01	October 2017 Monthly Water ICPMS Sink 1	100	101	-	-	-	Do not oven samples (CCV 90-110%, t	
1710142-01	Lagoons	100	101	-	-	-		
1710142-02	Lagoons Field Blank	100	101	-	-	-		
1710142-03	Clarifier	100	101	-	-	-		
1710142-04	Clarifier Field Blank	100	101	-	-	-		
1710142-05	A149	10	20	-	-	-		
1710142-06	A149 Blank	100	101	-	-	-		
1710143-01	OL-2678-01	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-02	OL-2678-02	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-03	OL-2678-03	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-04	OL-2678-04	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-05	OL-2678-05	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-06	OL-2678-06	100	101	-	-	-	Preservation Blank Created Scan all dat	

PREPARATION BENCH SHEET

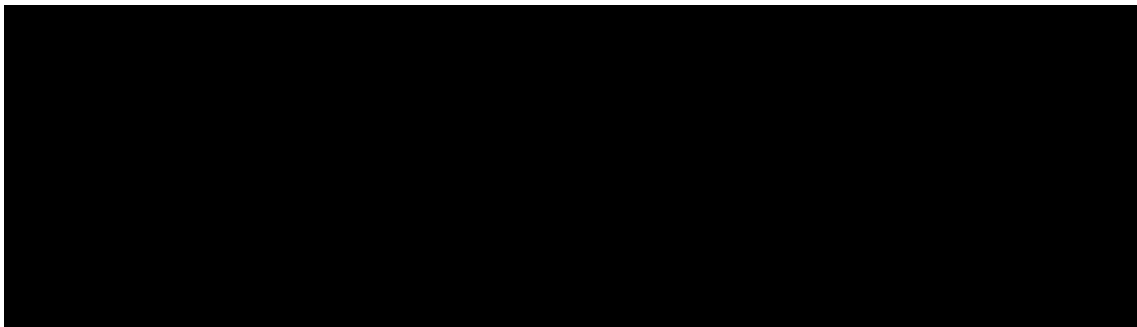
F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017



PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710204-BLK1	Blank	0.25	20					
F710204-BLK2	Blank	0.25	20					
F710204-BLK3	Blank	0.25	20					
F710204-BLK4	Blank	0.284	20					Pre-homogenization Blank for 1709615
F710204-BLK5	Blank	0.265	20					Post-homogenization Blank for 179615
F710204-BS1	LCS	0.25	20	1704421	20			
F710204-BS2	LCS	0.128	20	1705412	128			
F710204-BSD1	LCS Dup	0.25	20	1704421	20			
F710204-DUP1	Duplicate [1709614-02]	0.272	20					
F710204-MS1	Matrix Spike [1709614-01]	0.278	20	1705554	100			
F710204-MS2	Matrix Spike [1709614-02]	0.276	20	1705554	100			
F710204-MSD1	Matrix Spike Dup [1709614-01]	0.26	20	1705554	100			
F710204-MSD2	Matrix Spike Dup [1709614-02]	0.273	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl ₂ THg reductant	13-Mar-18 00:00
			1705823	5% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709614-01	OB-01_17ET001_091617_TOM_01_WB	0.277	20	QC	-	-	MS/MSD	
1709614-02	OB-01_17ET001_091617_TOM_02_WB	0.274	20	-	-	-	Sample contains enough volume for QC	
1709614-15	OB-01_17ET004_091617_TOM_15_WB	0.272	20	-	-	-		
1709614-16	OB-01_17ET004_091617_TOM_16_WB	0.268	20	-	-	-		
1709614-17	OB-01_17ET005_091617_TOM_17_WB	0.257	20	-	-	-		
1709614-18	OB-01_17ET006_091617_TOM_18_WB	0.257	20	-	-	-		
1709614-19	OB-01_17ET007_091617_TOM_19_WB	0.254	20	-	-	-		
1709614-20	OB-01_17ET008_091617_TOM_20_WB	0.254	20	-	-	-		
1709615-03	ES-13_17ET719_091817_TOM_03_WB	0.279	20	-	-	-		
1709615-04	ES-13_17ET719_091817_TOM_04_WB	0.262	20	-	-	-		
1709615-05	ES-13_17ET719_091817_TOM_05_WB	0.284	20	-	-	-		
1709615-06	ES-13_17ET719_091817_TOM_06_WB	0.272	20	-	-	-		
1709615-06RE1	ES-13_17ET719_091817_TOM_06_WB	0.272	20	-	-	-	Added 10/9/2017 by BC	Added 10/9/2017 by BC
1709615-07	ES-13_17ET722_091817_TOM_07_WB	0.256	20	-	-	-		
1709615-08	ES-13_17ET722_091817_TOM_08_WB	0.269	20	-	-	-		
1709615-09	ES-13_17ET723_091817_TOM_09_WB	0.257	20	-	-	-		
1709615-10	ES-13_17ET723_091817_TOM_10_WB	0.257	20	-	-	-		
1709615-11	ES-13_17ET717_091817_TOM_11_WB	0.255	20	-	-	-		
1709616-01	ES-FP_17ET658_091517_TOM_01_WB	0.266	20	-	-	-		

PREPARATION BENCH SHEET

F710204

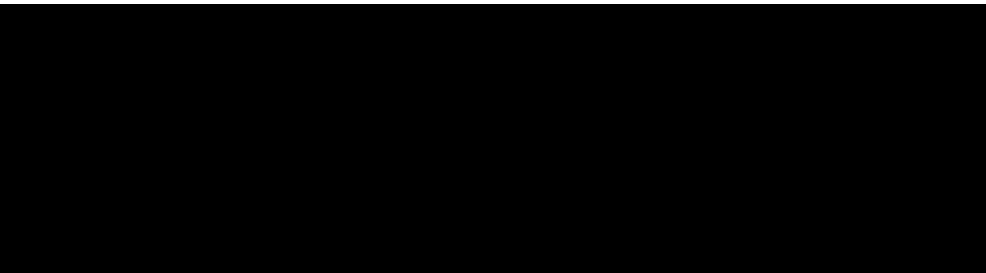
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

1709617-02	FRB-01_17SN001_091217_MUM_02_WB	0.272	20	-	-	-		
1709617-03	FRB-01_17SN001_091217_MUM_03_WB	0.269	20	-	-	-		



BC 10/6/17
2600-2

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710248-BLK1	Blank	100	101					1X source 1710143-07
F710248-BLK2	Blank	100	101					1X
F710248-BLK3	Blank	100	101					1X
F710248-BLK4	Blank	100 10	101 20					10X
F710248-BS1	LCS	100	101	1705580	100			1X
F710248-BSD1	LCS Dup	100	101		100			1X
F710248-DUP1	Duplicate 1709709-03	100	101					1X
F710248-MS1	Matrix Spike 1709709-03	100	101	1704422	25			1X
F710248-MS2	Matrix Spike 1709709-03 1710142-03	100	101	1704422	25			1X
F710248-MSD1	Matrix Spike Dup 1709709-03	100	101	1704422	25			1X
F710248-MSD2	Matrix Spike Dup 1710142-03	100	101	1704422	25			1X

Standard ID(s): Description: Expiration:

1X = 50 mL
5 mL = 10X

1705580
1705611
1703182
1705979
1705610

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709709-01	OS-RB-20170921	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	IX
1709709-02	OS-RB-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	IX
1709709-03	NC376OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	IX
1709709-04	NC376OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	IX
1709709-05	NC377OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	IX
1709709-06	NC377OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	IX
1710042-01	October 2017 Monthly Water ICPMS Sink 1	100	101	-	-	-	Do not oven samples (CCV 90-110%, t	IX
1710142-01	Lagoons	100	101	-	-	-		IX
1710142-02	Lagoons Field Blank	100	101	-	-	-		IX
1710142-03	Clarifier	100	101	-	-	-		IX
1710142-04	Clarifier Field Blank	100	101	-	-	-		IX
1710142-05	A149	100	101	-	-	-		10X
1710142-06	A149 Blank	100	101	-	-	-		IX
1710143-01	OL-2678-01	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-02	OL-2678-02	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-03	OL-2678-03	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-04	OL-2678-04	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-05	OL-2678-05	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-06	OL-2678-06	100	101	-	-	-	Preservation Blank Created Scan all dat	IX

010701
010501
010302

Due Date: 10/9/2017

PREPARATION BENCH SHEET

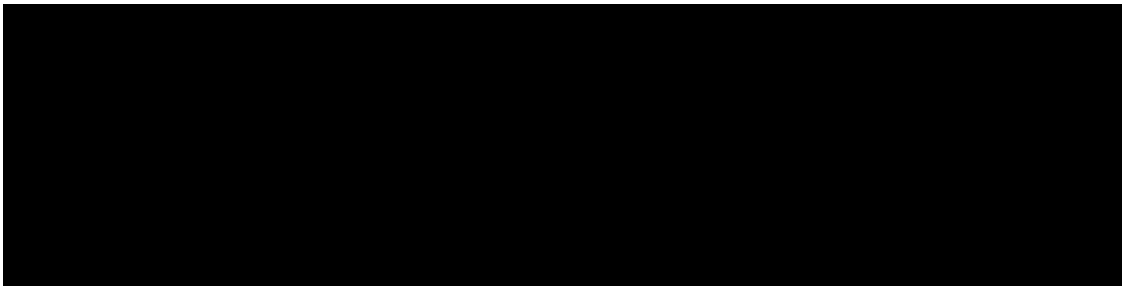
F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017



Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 9/26/17 Time Completed: 17:27

Work Orders: 1709700
1709709

BrCl LIMS ID: 1704915

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Pipette SN: J07631

Technician: _____ Date: _____ Time Completed: _____

Cal. Date: 9/20/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1709700-01A	3.00	3.00	Y			
1709700-02A	3.00	3.00	Y			
1709700-03A	3.00	3.00	Y			
1709700-04A	3.00	3.00	Y			
1709709-01A	3.00	3.00	Y			
1709709-02A	3.00	3.00	Y			
1709709-03A	3.00	3.00	Y			
1709709-04A	3.00	3.00	Y			
1709709-05A	3.00	3.00	Y			
1709709-06A	3.00	3.00	Y			
LM 9/26/17						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed 10/5/17

Total Mercury Preservation Logbook

CSP 10/4/17

Work Orders: ~~1710142~~ 1710142
1710143, 1710146

Initial preservation and/or verification

Technician: CSP Date: 10/4/17 Time Completed: 1730

BrCl LIMS ID: 1705580

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

Pipette SN: 507631

Cal. Date: 10/4/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710143-01A	300	3.00	y			
1710143-02A	300	3.00	y			
1710143-03A	300	3.00	y			
1710143-04A	300	3.00	y			
1710143-05A	300	3.00	y			
1710143-06A	300	3.00	y			
1710143-07A	300	3.00	y			
1710142-01A	300	3.00	y			
1710142-02A	300	3.00	y			
1710142-03A	300	3.00	y			
1710142-04A	300	3.00	y			
1710142-05B	10	10	y			
1710142-06A	300	3.00	y			
1710146-01A	300	3.00	y			
1710146-02A	300	3.00	y			
1710146-03A	300	3.00	y			

CSP
10/4/17

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Review
10/5

PREPARATION BENCH SHEET

2600-2
 BCL 10/6/17

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710204-BLK1	Blank	0.25	20					20X
F710204-BLK2	Blank	0.25	20					20X
F710204-BLK3	Blank	0.25	20					20X
F710204-BLK4	Blank	0.284	20					Pre-homogenization Blank for 1709615 20X
F710204-BLK5	Blank	0.265	20					Post-homogenization Blank for 179615 20X
F710204-BS1	LCS	0.25	20	1704421	20			20X
F710204-BS2	LCS	0.128	20	1705412	128			400X
F710204-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710204-DUP1	Duplicate [1709614-02]	0.272	20					400X
F710204-MS1	Matrix Spike [1709614-01]	0.278	20	1705554	100			400X
F710204-MS2	Matrix Spike [1709614-02]	0.276	20	1705554	100			400X 400X
F710204-MSD1	Matrix Spike Dup [1709614-01]	0.26	20	1705554	100			400X
F710204-MSD2	Matrix Spike Dup [1709614-02]	0.273	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705823	5% BrCl	22-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00

400X = 125µL
 100X = 500µL
 20X = 2.5µL

1705611
 1705610
 1703182
 1705779

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709614-01	OB-01_17ET001_091617_TOM_01_WB	0.277	20	QC	-	-	MS/MSD 400	
1709614-02	OB-01_17ET001_091617_TOM_02_WB	0.274	20	-	-	-	Sample contains enough volume for QC 400x	
1709614-15	OB-01_17ET004_091617_TOM_15_WB	0.272	20	-	-	-	400x	
1709614-16	OB-01_17ET004_091617_TOM_16_WB	0.268	20	-	-	-	400x	
1709614-17	OB-01_17ET005_091617_TOM_17_WB	0.257	20	-	-	-	400x	
1709614-18	OB-01_17ET006_091617_TOM_18_WB	0.257	20	-	-	-	400x	
1709614-19	OB-01_17ET007_091617_TOM_19_WB	0.254	20	-	-	-	400x	
1709614-20	OB-01_17ET008_091617_TOM_20_WB	0.254	20	-	-	-	400x	
1709615-03	ES-13_17ET719_091817_TOM_03_WB	0.279	20	-	-	-	400x	
1709615-04	ES-13_17ET719_091817_TOM_04_WB	0.262	20	-	-	-	400x	
1709615-05	ES-13_17ET719_091817_TOM_05_WB	0.284	20	-	-	-	400x	
1709615-06	ES-13_17ET719_091817_TOM_06_WB	0.272	20	-	-	-	400x → 100x	
1709615-07	ES-13_17ET722_091817_TOM_07_WB	0.256	20	-	-	-	400x	
1709615-08	ES-13_17ET722_091817_TOM_08_WB	0.269	20	-	-	-	400x	
1709615-09	ES-13_17ET723_091817_TOM_09_WB	0.257	20	-	-	-	400x	
1709615-10	ES-13_17ET723_091817_TOM_10_WB	0.257	20	-	-	-	400x	
1709615-11	ES-13_17ET717_091817_TOM_11_WB	0.255	20	-	-	-	400x	
1709616-01	ES-FP_17ET658_091517_TOM_01_WB	0.266	20	-	-	-	400x	
1709617-02	FRB-01_17SN001_091217_MUM_02_WB	0.272	20	-	-	-	20x	

PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

1709617-03	FRB-01_17SN001_091217_MUM_03_WB	0.269	20	-	-	-	20x	
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Technician: WPF Batch#: F710204 Date: 10/3/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19 (0.0204) Calibrated? Yes No Therm.#: 1404/801 Calibrated? Yes No
 Time in: 17:15 Actual Temp. (raw): 80.4 °C w/ CF: 80.1 °C
 Time out: 19:15 Actual Temp. (raw): Timer °C w/ CF: Timer °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705823) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: BL 10/3/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0267852 Calibration Date: 10/2/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705859 Dispenser #: 0262749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 746
 Glass Vial # 0008124 Boiling Chip lot # 1702551 *Hotblock Position: M5

Vial #	Sample ID Number	Sample Size		Vial #	Sample ID Number	Sample Size		CRM LIMS ID	Comments
		<input type="checkbox"/> mL	<input type="checkbox"/> µg			<input type="checkbox"/> mL	<input type="checkbox"/> µg		
1	F710204 - BLK1	0.257	0.257	23	1709615 - 07	0.256		BS2	
2	F710204 - BLK2	0.260	0.260	24	1709615 - 08	0.269		BS2	BS/BS = DUBBLE
3	F710204 - BLK3	0.256	0.256	25	1709615 - 09	0.257		BS2	LIMS 1709412
4	F710204 - BS1	0.257	0.257	26	1709615 - 10	0.257			
5	F710204 - BSD1	0.254	0.254	27	1709615 - 11	0.255			MS1/MS2 1 source = 1709614 - 01
6	1709614 - 01	0.277	0.277	28	1709616 - 01	0.266			DUP1/MS2/MSD2 source = 1709614 - 02
7	F710204 - MS1	0.278	0.278	29	1709617 - 02	0.272			
8	F710204 - MSD1	0.260	0.260	30	1709617 - 03	0.269			BS/BS1 spiked with 20µl of 1704421
9	1709614 - 02	0.274	0.274	31	F710204 - BS2	0.1280			
10	F710204 - DUP1	0.272	0.272	32	F710204 - BLK4	0.284			BLK4 + S are Pre/Post blanks for 1709615 -
11	F710204 - MS2	0.276	0.276	33	F710204 - BLK5	0.265			
12	F710204 - MSD2	0.273	0.273	34					
13	1709614 - 15	0.272	0.272	35					
14	1709614 - 16	0.268	0.268	36					
15	1709614 - 17	0.257	0.257	37					BS/BS spiked with 20 µl of 1704421
16	1709614 - 18	0.257	0.257	38					*Redundant art
17	1709614 - 19	0.254	0.254	39					
18	1709614 - 20	0.254	0.254	40					
19	1709615 - 03	0.279	0.279	41					Pre/Post blanks for 1709616 are in batch F710207
20	1709615 - 04	0.262	0.262	42					
21	1709615 - 05	0.284	0.284	43					Pre/Post blanks for 1709616 are in batch F710196
22	1709615 - 06	0.272	0.272	44					Pre/Post blanks for 1709616 are in batch F710214

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7J09009, 7J09010
Reviewer:	0	Dataset ID(s):	THg26002-171006-1
Date:	10/9/2017	WO (s) #:	0
Batch #(s):	F710248, F710204		0

Analyst Initials BC **Reviewer Initials** DM

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF ($\leq 15\%$) PASS FAIL
- Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
- Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
- Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
- Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
- Comments: _____
12. Explain any items on the failed data report from Element
- Comments: _____
13. Are the individual Preparation Blanks $< PQL$ or $< 2.2 \times MDL$ for WI (refer to appropriate prep method PQL list) PASS FAIL
- (a) If not $< PQL$ or $< 2.2 \times MDL$ for WI, note which PB(s) are above control limit:
- (b) Is the mean PB $< PQL$ or $< 2.2 \times MDL$ for WI (for appropriate qualification)? YES NO
- (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
- (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
- (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
- (b) Filtration Blank absolute value $< PQL$ or $< 2.2 \times MDL$ for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
- Comments: _____
16. CCBs individually < 0.50 ng/L or $2.2 \times MDL$ for WI? PASS FAIL
- Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J09009, 7J09010
Reviewer: 0	Dataset ID(s): THg26002-171006-1
Date: 10/9/2017	WO (s) #: 0
Batch #(s): F710248, F710204	0

Analyst Initials BC

Reviewer Initials DM

20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? YES NO
- Comments: _____
21. Are all samples within instrument calibration range? (or at minimum dilution size) PASS FAIL
- Comments: _____
22. Are the samples run at the correct dilution level for the method? YES NO
- Comments: _____
23. Dissolved < Total (if applicable) YES NO N/A
- Comments: _____
24. Effluent < Influent (visually confirm if needed) YES NO N/A
- Comments: _____
25. Are re-runs noted with reason? YES NO N/A
- Comments: _____
26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? YES NO N/A
- Comments: _____
27. Is the B trap <5% A Traps YES NO N/A
- Comments: _____
28. Are spiked trap recoveries 75-125% of true value? YES NO N/A
- Comments: _____
29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
- Comments: _____
30. Have re-extracts been created for non-reportable samples? YES NO N/A
31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. YES NO N/A
32. Does the data set need scanning? YES N/A
33. Does the dataset have an LOQ/LOQ or DOC? YES N/A
34. Water samples: has the preservation log been included in dataset for final volume verification? YES NO N/A
35. Water samples-is the final volume correct in the sequence? YES NO N/A
- Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs**
36. Date of analyst IDOC/CDOC: 1/11/17, 1/27/17 IDOC/CDOC within last 12 months? YES NO
37. Date of analyst's SOP reading for method: 5/20/17 Current SOP revision read? YES NO
38. Date of LOD: 5/9/17, 4/26/17 LOD within last 3 months? YES NO
39. Date of LOQ: 5/9/17, 4/26/17 LOQ within last 3 months? YES NO

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.



Frontier Global Sciences

THg26003-171006-2

Analysis Datasheet for Total Mercury

Date of Analysis: October 06, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7J09011, 7J09012, 7J09013

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	80.95 units	161.90	74.85 units	149.71	92.3 %Rec
SEQ-CAL2	1	1.00 ng/L	168.95 units	168.95	162.85 units	162.85	100.4 %Rec
SEQ-CAL3	1	5.00 ng/L	808.83 units	161.77	802.73 units	160.55	99.0 %Rec
SEQ-CAL4	1	20.00 ng/L	3332.46 units	166.62	3326.36 units	166.32	102.6 %Rec
SEQ-CAL5	1	40.00 ng/L	6863.92 units	171.60	6857.82 units	171.45	105.7 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
162.17	+/- 8.09	5.0% RSD	166.17

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.10 units	±0.98	0.04 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	9.399 ng/L	±2.232
BLK	2	3	3.195 ng/L	±1.047
BLK	3	2	8.490 ng/L	±2.422
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: DM 10/10/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	CAL	SEQ-IBL1	1	10/6/2017 8:10:32	77089-1.RAW	8:10:32 AM	5.02			-1.1	-0.007	-0.007	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	10/6/2017 8:14:41	77090-1.RAW	8:14:41 AM	6.92			0.8	0.005	0.005	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	10/6/2017 8:18:49	77091-1.RAW	8:18:49 AM	6.35			0.3	0.002	0.002	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	10/6/2017 8:22:57	77092-1.RAW	8:22:57 AM	80.95			74.9	0.462	0.462	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	10/6/2017 8:27:06	77093-1.RAW	8:27:06 AM	168.95			162.9	1.004	1.004	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	10/6/2017 8:31:14	77094-1.RAW	8:31:14 AM	808.83			802.7	4.950	4.950	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	10/6/2017 8:35:23	77095-1.RAW	8:35:23 AM	3332.46			3326.4	20.511	20.511	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	10/6/2017 8:39:31	77096-1.RAW	8:39:31 AM	6863.92			6857.8	42.287	42.287	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	10/6/2017 8:43:39	77097-1.RAW	8:43:39 AM	893.02			886.9	5.469	5.469	ng/L	
Hg2600-3	BC	SAM	WS		10/6/2017 8:54:01	77099-1.RAW	8:54:01 AM	114.53		x	108.4	0.669	0.000	ng/L	
Hg2600-3	BC	BLK	F710193-BLK4	100	10/6/2017 8:58:10	77098-2.RAW	8:58:10 AM	25.20	1		19.1	0.118	11.780	ng/L	
Hg2600-3	BC	BLK	F710193-BLK5	100	10/6/2017 9:02:18	77100-1.RAW	9:02:18 AM	20.80	1		14.7	0.091	9.066	ng/L	
Hg2600-3	BC	BLK	F710193-BLK6	100	10/6/2017 9:06:27	77101-1.RAW	9:06:27 AM	18.02	1		11.9	0.074	7.352	ng/L	
Hg2600-3	BC	SAM	1709806-31RE1	100	10/6/2017 9:10:35	77102-1.RAW	9:10:35 AM	44.90	1		38.8	0.145	14.528	ng/L	
Hg2600-3	BC	SAM	1709806-31BRE1	100	10/6/2017 9:14:43	77103-1.RAW	9:14:43 AM	173.91	1		167.8	0.941	94.078	ng/L	
Hg2600-3	BC	BLK	F710229-BLK1	1	10/6/2017 9:18:52	77104-1.RAW	9:18:52 AM	9.36	x		3.3	0.020	0.020	ng/L	
Hg2600-3	BC	BLK	F710229-BLK2	1	10/6/2017 9:23:00	77105-1.RAW	9:23:00 AM	8.43	x		2.3	0.014	0.014	ng/L	
Hg2600-3	BC	BLK	F710229-BLK3	1	10/6/2017 9:27:09	77106-1.RAW	9:27:09 AM	8.22	x		2.1	0.013	0.013	ng/L	
Hg2600-3	BC	SAM	F710229-BS1	1	10/6/2017 9:31:17	77107-1.RAW	9:31:17 AM	2620.31	x		2614.2	16.120	16.120	ng/L	
Hg2600-3	BC	SAM	F710229-BSD1	1	10/6/2017 9:35:26	77108-1.RAW	9:35:26 AM	2691.96	x		2685.9	16.562	16.562	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	10/6/2017 9:39:34	77109-1.RAW	9:39:34 AM	877.43			871.3	5.373	5.373	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	10/6/2017 9:43:42	77110-1.RAW	9:43:42 AM	38.44			32.3	0.199	0.199	ng/L	
Hg2600-3	BC	SAM	1710086-01	1	10/6/2017 9:47:51	77111-1.RAW	9:47:51 AM	212.91	x		206.8	1.275	1.275	ng/L	
Hg2600-3	BC	SAM	1710086-02	1	10/6/2017 9:51:59	77112-1.RAW	9:51:59 AM	596.28	x		590.2	3.639	3.639	ng/L	
Hg2600-3	BC	SAM	1710086-03	1	10/6/2017 9:56:08	77113-1.RAW	9:56:08 AM	70.36	x		64.3	0.396	0.396	ng/L	
Hg2600-3	BC	SAM	1710087-01	50	10/6/2017 10:00:16	77114-1.RAW	10:00:16 AM	74.98	x		68.9	0.425	21.237	ng/L	
Hg2600-3	BC	SAM	1710087-02	50	10/6/2017 10:04:24	77115-1.RAW	10:04:24 AM	70.54	x		64.4	0.397	19.869	ng/L	
Hg2600-3	BC	SAM	1710087-03	1	10/6/2017 10:08:33	77116-1.RAW	10:08:33 AM	86.99	x		80.9	0.499	0.499	ng/L	
Hg2600-3	BC	SAM	1710087-04	1	10/6/2017 10:12:41	77117-1.RAW	10:12:41 AM	3541.36	x		3535.3	21.799	21.799	ng/L	
Hg2600-3	BC	SAM	1710087-05	1	10/6/2017 10:16:50	77118-1.RAW	10:16:50 AM	4516.57	x		4510.5	27.813	27.813	ng/L	
Hg2600-3	BC	SAM	1710087-06	1	10/6/2017 10:20:58	77119-1.RAW	10:20:58 AM	85.60	x		79.5	0.490	0.490	ng/L	
Hg2600-3	BC	SAM	1710087-07	1	10/6/2017 10:25:07	77120-1.RAW	10:25:07 AM	3212.21	x		3206.1	19.770	19.770	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	10/6/2017 10:29:15	77121-1.RAW	10:29:15 AM	879.34			873.2	5.385	5.385	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	10/6/2017 10:33:23	77122-1.RAW	10:33:23 AM	39.72			33.6	0.207	0.207	ng/L	
Hg2600-3	BC	SAM	1710088-01	1	10/6/2017 10:37:32	77123-1.RAW	10:37:32 AM	432.55	x		426.5	2.630	2.630	ng/L	
Hg2600-3	BC	SAM	1710088-02	1	10/6/2017 10:41:40	77124-1.RAW	10:41:40 AM	280.58	x		274.5	1.693	1.693	ng/L	
Hg2600-3	BC	SAM	1710088-03	1	10/6/2017 10:45:49	77125-1.RAW	10:45:49 AM	243.15	x		237.1	1.462	1.462	ng/L	
Hg2600-3	BC	SAM	1710088-04	1	10/6/2017 10:49:57	77126-1.RAW	10:49:57 AM	243.15	x		237.1	1.462	1.462	ng/L	
Hg2600-3	BC	SAM	1710088-05	1	10/6/2017 10:54:05	77127-1.RAW	10:54:05 AM	251.26	x		245.2	1.512	1.512	ng/L	
Hg2600-3	BC	SAM	1710088-06	1	10/6/2017 10:58:14	77128-1.RAW	10:58:14 AM	194.67	x		188.6	1.163	1.163	ng/L	
Hg2600-3	BC	SAM	1710088-07	1	10/6/2017 11:02:22	77129-1.RAW	11:02:22 AM	43.05	x		37.0	0.228	0.228	ng/L	
Hg2600-3	BC	SAM	1710087-08	1	10/6/2017 11:06:31	77130-1.RAW	11:06:31 AM	2874.73	x		2868.6	17.689	17.689	ng/L	
Hg2600-3	BC	SAM	1710087-09	1	10/6/2017 11:10:39	77131-1.RAW	11:10:39 AM	62.29	x		56.2	0.347	0.347	ng/L	
Hg2600-3	BC	SAM	1710087-01RE1	5	10/6/2017 11:14:48	77132-1.RAW	11:14:48 AM	389.76	x		383.7	2.366	11.829	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	10/6/2017 11:18:56	77133-1.RAW	11:18:56 AM	839.35			833.3	5.138	5.138	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	10/6/2017 11:23:04	77134-1.RAW	11:23:04 AM	31.79			25.7	0.158	0.158	ng/L	
Hg2600-3	BC	SAM	1710087-02RE1	5	10/6/2017 11:27:13	77135-1.RAW	11:27:13 AM	383.40	x		377.3	2.327	11.633	ng/L	
Hg2600-3	BC	SAM	F710229-DUP1	1	10/6/2017 11:31:21	77136-1.RAW	11:31:21 AM	221.35	x		215.3	1.327	1.327	ng/L	
Hg2600-3	BC	SAM	F710229-MS1	1	10/6/2017 11:35:30	77137-1.RAW	11:35:30 AM	1037.46	x		1031.4	6.360	6.360	ng/L	
Hg2600-3	BC	SAM	F710229-MSD1	1	10/6/2017 11:39:38	77138-1.RAW	11:39:38 AM	1060.53	x		1054.4	6.502	6.502	ng/L	
Hg2600-3	BC	SAM	F710229-MS2	1	10/6/2017 11:43:47	77139-1.RAW	11:43:47 AM	1133.18	x		1127.1	6.950	6.950	ng/L	
Hg2600-3	BC	SAM	F710229-MSD2	1	10/6/2017 11:47:55	77140-1.RAW	11:47:55 AM	1159.40	x		1153.3	7.112	7.112	ng/L	
Hg2600-3	BC	BLK	F710207-BLK1	20	10/6/2017 11:52:03	77141-1.RAW	11:52:03 AM	39.81	2		33.7	0.208	4.158	ng/L	
Hg2600-3	BC	BLK	F710207-BLK2	20	10/6/2017 11:56:12	77142-1.RAW	11:56:12 AM	33.25	2		27.2	0.167	3.349	ng/L	
Hg2600-3	BC	BLK	F710207-BLK3	20	10/6/2017 12:00:20	77143-1.RAW	12:00:20 PM	22.96	2		16.9	0.104	2.080	ng/L	
Hg2600-3	BC	SAM	*F710207-BLK4	20	10/6/2017 12:04:29	77144-1.RAW	12:04:29 PM	20.94	2		14.8	-0.068	-1.365	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	10/6/2017 12:08:37	77145-1.RAW	12:08:37 PM	791.21			785.1	4.841	4.841	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	CAL	SEQ-CCB4	1	10/6/2017 12:12:45	77146-1.RAW	12:12:45 PM	20.81							
Hg2600-3	BC	SAM	*F710207-BLK5	20	10/6/2017 12:16:54	77147-1.RAW	12:16:54 PM	19.18	2		14.7	0.091	0.091	ng/L	
Hg2600-3	BC	SAM	F710207-BS1	20	10/6/2017 12:21:02	77148-1.RAW	12:21:02 PM	826.97	2		13.1	-0.079	-1.582	ng/L	
Hg2600-3	BC	SAM	F710207-BSD1	20	10/6/2017 12:25:11	77149-1.RAW	12:25:11 PM	866.33	2		820.9	4.902	98.038	ng/L	
Hg2600-3	BC	SAM	F710207-BS2	400	10/6/2017 12:29:19	77150-1.RAW	12:29:19 PM	1000.89	2		860.2	5.145	102.892	ng/L	
Hg2600-3	BC	SAM	1709617-01	400	10/6/2017 12:34:43	77151-1.RAW	12:34:43 PM	77.88	2		994.8	6.126	2450.448	ng/L	
Hg2600-3	BC	SAM	1709615-01	400	10/6/2017 12:38:51	77152-1.RAW	12:38:51 PM	1292.39	2		71.8	0.435	173.857	ng/L	
Hg2600-3	BC	SAM	1709615-02	400	10/6/2017 12:43:00	77153-1.RAW	12:43:00 PM	633.69	2		1286.3	7.924	3169.428	ng/L	
Hg2600-3	BC	SAM	1709617-04	50	10/6/2017 12:49:10	77154-1.RAW	12:49:10 PM	324.34	2		627.6	3.862	1544.754	ng/L	
Hg2600-3	BC	SAM	1709617-05	50	10/6/2017 12:53:18	77155-1.RAW	12:53:18 PM	344.11	2		318.2	1.898	94.922	ng/L	
Hg2600-3	BC	SAM	1709617-06	50	10/6/2017 12:57:27	77156-1.RAW	12:57:27 PM	307.64	2		338.0	2.020	101.018	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	10/6/2017 13:01:35	77157-1.RAW	1:01:35 PM	806.46			301.5	1.795	89.774	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	10/6/2017 13:05:43	77158-1.RAW	1:05:43 PM	25.03			800.4	4.935	4.935	ng/L	
Hg2600-3	BC	SAM	WS		10/6/2017 13:12:54	77159-1.RAW	1:12:54 PM	40.90	x		18.9	0.117	0.117	ng/L	
Hg2600-3	BC	SAM	1709617-07	20	10/6/2017 13:17:02	77160-1.RAW	1:17:02 PM	872.22	2		34.8	0.215	0.000	ng/L	
Hg2600-3	BC	SAM	1709617-08	20	10/6/2017 13:21:11	77161-1.RAW	1:21:11 PM	839.28	2		866.1	5.181	103.619	ng/L	
Hg2600-3	BC	SAM	1709617-09	20	10/6/2017 13:25:19	77162-1.RAW	1:25:19 PM	703.79	2		833.2	4.978	99.556	ng/L	
Hg2600-3	BC	SAM	1709617-10	20	10/6/2017 13:29:28	77163-1.RAW	1:29:28 PM	810.58	2		697.7	4.142	82.847	ng/L	
Hg2600-3	BC	SAM	1709617-11	20	10/6/2017 13:33:36	77164-1.RAW	1:33:36 PM	741.52	2		804.5	4.801	96.017	ng/L	
Hg2600-3	BC	SAM	1709617-12	20	10/6/2017 13:37:44	77165-1.RAW	1:37:44 PM	550.91	2		804.5	4.801	96.017	ng/L	
Hg2600-3	BC	SAM	1709617-13	20	10/6/2017 13:41:53	77166-1.RAW	1:41:53 PM	634.53	2		735.4	4.375	87.500	ng/L	
Hg2600-3	BC	SAM	1709617-14	20	10/6/2017 13:46:01	77167-1.RAW	1:46:01 PM	653.01	2		544.8	3.200	63.993	ng/L	
Hg2600-3	BC	SAM	1709617-15	20	10/6/2017 13:50:10	77168-1.RAW	1:50:10 PM	590.23	2		628.4	3.715	74.306	ng/L	
Hg2600-3	BC	SAM	1709617-16	20	10/6/2017 13:54:18	77169-1.RAW	1:54:18 PM	725.07	2		646.9	3.829	76.585	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	10/6/2017 13:58:27	77170-1.RAW	1:58:27 PM	804.51			584.1	3.442	68.842	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	10/6/2017 14:02:35	77171-1.RAW	2:02:35 PM	34.64			719.0	4.274	85.472	ng/L	
Hg2600-3	BC	SAM	1709617-17	20	10/6/2017 14:06:43	77172-1.RAW	2:06:43 PM	679.81	2		798.4	4.923	4.923	ng/L	
Hg2600-3	BC	SAM	1709617-18	20	10/6/2017 14:10:52	77173-1.RAW	2:10:52 PM	852.32	2		28.5	0.176	0.176	ng/L	
Hg2600-3	BC	SAM	1709617-19	20	10/6/2017 14:15:00	77174-1.RAW	2:15:00 PM	756.98	2		673.7	3.994	79.890	ng/L	
Hg2600-3	BC	SAM	1709617-20	20	10/6/2017 14:19:09	77175-1.RAW	2:19:09 PM	493.22	2		846.2	5.058	101.165	ng/L	
Hg2600-3	BC	SAM	1709617-01RE1	20	10/6/2017 14:23:17	77176-1.RAW	2:23:17 PM	598.25	2		750.9	4.470	89.407	ng/L	
Hg2600-3	BC	SAM	F710207-DUP1	400	10/6/2017 14:27:25	77177-1.RAW	2:27:25 PM	575.82	2		487.1	2.844	56.879	ng/L	
Hg2600-3	BC	SAM	F710207-MS1	400	10/6/2017 14:31:34	77178-1.RAW	2:31:34 PM	2541.89	2		592.2	3.492	69.832	ng/L	
Hg2600-3	BC	SAM	F710207-MSD1	400	10/6/2017 14:35:42	77179-1.RAW	2:35:42 PM	2511.24	2		569.7	3.505	1402.019	ng/L	
Hg2600-3	BC	SAM	F710207-MS2	400	10/6/2017 14:39:51	77180-1.RAW	2:39:51 PM	1975.57	2		2535.8	15.628	6251.302	ng/L	
Hg2600-3	BC	SAM	F710207-MSD2	400	10/6/2017 14:44:00	77181-1.RAW	2:44:00 PM	1997.93	2		2505.1	15.439	6175.704	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	10/6/2017 14:48:08	77182-1.RAW	2:48:08 PM	838.18			1969.5	12.136	4854.482	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	10/6/2017 14:52:17	77183-1.RAW	2:52:17 PM	47.01			1991.8	12.274	4909.632	ng/L	
Hg2600-3	BC	BLK	F710232-BLK1	50	10/6/2017 14:56:25	77184-1.RAW	2:56:25 PM	28.08	3		832.1	5.131	5.131	ng/L	
Hg2600-3	BC	BLK	F710232-BLK2	50	10/6/2017 15:03:40	77185-2.RAW	3:03:40 PM	39.19	3		40.9	0.252	0.252	ng/L	
Hg2600-3	BC	SAM	F710232-BS1	400	10/6/2017 15:07:49	77186-1.RAW	3:07:49 PM	1207.48	3		22.0	0.136	6.778	ng/L	
Hg2600-3	BC	SAM	F710232-BSD1	400	10/6/2017 15:11:57	77187-1.RAW	3:11:57 PM	1149.02	3		33.1	0.204	10.203	ng/L	
Hg2600-3	BC	SAM	1710167-01	50	10/6/2017 15:16:05	77188-1.RAW	3:16:05 PM	32.08	3		1201.4	7.387	2954.704	ng/L	
Hg2600-3	BC	SAM	1710170-01	50	10/6/2017 15:20:14	77189-1.RAW	3:20:14 PM	23.78	3		1142.9	7.026	2810.513	ng/L	
Hg2600-3	BC	SAM	F710232-DUP1	50	10/6/2017 15:24:22	77190-1.RAW	3:24:22 PM	16.89	3		26.0	-0.010	-0.479	ng/L	
Hg2600-3	BC	SAM	F710232-MS1	400	10/6/2017 15:28:31	77191-1.RAW	3:28:31 PM	1151.01	3		17.7	-0.061	-3.038	ng/L	
Hg2600-3	BC	SAM	F710232-MSD1	400	10/6/2017 15:32:39	77192-1.RAW	3:32:39 PM	1152.47	3		10.8	-0.103	-5.163	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	10/6/2017 15:36:48	77193-1.RAW	3:36:48 PM	831.55			1144.9	7.039	2815.422	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8	1	10/6/2017 15:40:56	77194-1.RAW	3:40:56 PM	26.82			1146.4	7.048	2819.023	ng/L	
											825.5	5.090	5.090	ng/L	
											20.7	0.128	0.128	ng/L	

TotalMercury EPA1631
 Operatr BC
 BlankSut 6.0974
 CalibEqn: Conc = (Area-6.097
 Run Date: 10/6/2017
 Blank SD: 0.976146873
 Worksh THg2600 CalibFact 162.17
 Status: QC Warnings:5/QC E
 Run Time: 14:59:31
 Blank RSD%: 16.00911015
 Method ##### R: 0.9999
 R²: 0.9998
 CF SD: 8.086109444
 CF RSD%: 4.986065233

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ef)	Flags	RunCount	Comment
Clean				0.00	9.03					77084-1.RAW	7:51:07	1464.40	Clean	OK	1	
CLEAN										77085-1.RAW	7:53:59	0.00	Clean	NP	1	
WS				6.10	0.00					77086-1.RAW	7:58:07	6.74	Sample	OK	1	
WS				6.10	0.00					77087-1.RAW	8:02:15	3.60	Sample	OK	1	
WS				6.10	0.01					77088-1.RAW	8:06:24	8.48	Sample	OK	1	
SEQ-IBL1	A1		1	0.00	0.03					77089-1.RAW	8:10:32	5.02	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.04					77090-1.RAW	8:14:41	6.92	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.04					77091-1.RAW	8:18:49	6.35	Sample	OK	1	
SEQ-CAL1	A4		1	6.10	0.46			92.32		77092-1.RAW	8:22:57	80.95	Sample	OK	1	
SEQ-CAL2	A5		1	6.10	1.00			100.42		77093-1.RAW	8:27:06	168.95	Sample	OK	1	
SEQ-CAL3	A6		1	6.10	4.95			99.00		77094-1.RAW	8:31:14	808.83	Sample	OK	1	
SEQ-CAL4	A7		1	6.10	20.51			102.56		77095-1.RAW	8:35:23	3332.46	Sample	OK	1	
SEQ-CAL5	A8		1	6.10	42.29			105.72		77096-1.RAW	8:39:31	6863.92	Sample	OK	1	
SEQ-ICV1	A9		1	6.10	5.47			109.38		77097-1.RAW	8:43:39	893.02	Sample	OK	1	
WS				6.10	0.67					77099-1.RAW	8:54:01	114.53	Sample	OK	1	STALLED
F710193-BLK4	A10		100	6.10	11.78					77098-2.RAW	8:58:10	25.20	Sample	OK	1	
F710193-BLK5	A11		100	6.10	9.06					77100-1.RAW	9:02:18	20.80	Sample	OK	1	
F710193-BLK6	A12		100	6.10	7.35					77101-1.RAW	9:06:27	18.02	Sample	OK	1	
1709806-31RE1	B1		100	6.10	23.93					77102-1.RAW	9:10:35	44.90	Sample	OK	1	
1709806-31BRE1	B2		100	6.10	103.47					77103-1.RAW	9:14:43	173.91	Sample	OK	1	
F710229-BLK1	B3		1	6.10	0.02					77104-1.RAW	9:18:52	9.36	Sample	OK	1	
F710229-BLK2	B4		1	6.10	0.01					77105-1.RAW	9:23:00	8.43	Sample	OK	1	
F710229-BLK3	B5		1	6.10	0.01					77106-1.RAW	9:27:09	8.22	Sample	OK	1	
F710229-BS1	B6		1	6.10	16.12					77107-1.RAW	9:31:17	2620.31	Sample	OK	1	
F710229-BSD1	B7		1	6.10	16.56					77108-1.RAW	9:35:26	2691.96	Sample	OK	1	
SEQ-CCV1	B8		1	6.10	5.37			107.46		77109-1.RAW	9:39:34	877.43	Sample	OK	1	
SEQ-CCB1	B9		1	6.10	0.20			0.00		77110-1.RAW	9:43:42	38.44	Sample	OK	1	
1710086-01	B10		1	6.10	1.28					77111-1.RAW	9:47:51	212.91	Sample	OK	1	
1710086-02	B11		1	6.10	3.64					77112-1.RAW	9:51:59	596.28	Sample	OK	1	
1710086-03	B12		1	6.10	0.40					77113-1.RAW	9:56:08	70.36	Sample	OK	1	
1710087-01	C1		50	6.10	21.24					77114-1.RAW	10:00:16	74.98	Sample	OK	1	
1710087-02	C2		50	6.10	19.87					77115-1.RAW	10:04:24	70.54	Sample	OK	1	
1710087-03	C3		1	6.10	0.50					77116-1.RAW	10:08:33	86.99	Sample	OK	1	
1710087-04	C4		1	6.10	21.80					77117-1.RAW	10:12:41	3541.36	Sample	FB	1	
1710087-05	C5		1	6.10	27.81					77118-1.RAW	10:16:50	4516.57	Sample	FB	1	
1710087-06	C6		1	6.10	0.49					77119-1.RAW	10:20:58	85.60	Sample	OK	1	
1710087-07	C7		1	6.10	19.77					77120-1.RAW	10:25:07	3212.21	Sample	OK	1	
SEQ-CCV2	C8		1	6.10	5.38			107.69		77121-1.RAW	10:29:15	879.34	Sample	OK	1	
SEQ-CCB2	C9		1	6.10	0.21			0.00		77122-1.RAW	10:33:23	39.72	Sample	OK	1	
1710088-01	C10		1	6.10	2.63					77123-1.RAW	10:37:32	432.55	Sample	OK	1	
1710088-02	C11		1	6.10	1.69					77124-1.RAW	10:41:40	280.58	Sample	OK	1	
1710088-03	C12		1	6.10	1.46					77125-1.RAW	10:45:49	243.15	Sample	OK	1	
1710088-04	D1		1	6.10	1.46					77126-1.RAW	10:49:57	243.15	Sample	OK	1	
1710088-05	D2		1	6.10	1.51					77127-1.RAW	10:54:05	251.26	Sample	OK	1	
1710088-06	D3		1	6.10	1.16					77128-1.RAW	10:58:14	194.67	Sample	OK	1	
1710088-07	D4		1	6.10	0.23					77129-1.RAW	11:02:22	43.05	Sample	OK	1	

1710087-08	D5	1	6.10	17.69		77130-1.RAW	11:06:31	2874.73	Sample	OK	1
1710087-09	D6	1	6.10	0.35		77131-1.RAW	11:10:39	62.29	Sample	OK	1
1710087-01RE1	D7	5	6.10	11.83		77132-1.RAW	11:14:48	389.76	Sample	OK	1
SEQ-CCV3	D8	1	6.10	5.14	102.76	77133-1.RAW	11:18:56	839.35	Sample	OK	1
SEQ-CCB3	D9	1	6.10	0.16	0.00	77134-1.RAW	11:23:04	31.79	Sample	OK	1
1710087-02RE1	D10	5	6.10	11.63		77135-1.RAW	11:27:13	383.40	Sample	OK	1
F710229-DUP1	D11	1	6.10	1.33		77136-1.RAW	11:31:21	221.35	Sample	OK	1
F710229-MS1	D12	1	6.10	6.36	273.26	77137-1.RAW	11:35:30	1037.46	Sample	OK	1
F710229-MSD1	A1	1	6.10	6.50		77138-1.RAW	11:39:38	1060.53	Sample	OK	1
F710229-MS2	A2	1	6.10	6.95	81.74	77139-1.RAW	11:43:47	1133.18	Sample	OK	1
F710229-MSD2	A3	1	6.10	7.11		77140-1.RAW	11:47:55	1159.40	Sample	OK	1
F710207-BLK1	A4	20	6.10	4.16		77141-1.RAW	11:52:03	39.81	Sample	OK	1
F710207-BLK2	A5	20	6.10	3.35		77142-1.RAW	11:56:12	33.25	Sample	OK	1
F710207-BLK3	A6	20	6.10	2.08		77143-1.RAW	12:00:20	22.96	Sample	OK	1
F710207-BLK4	A7	20	6.10	1.83		77144-1.RAW	12:04:29	20.94	Sample	OK	1
SEQ-CCV4	A8	1	6.10	4.84	96.82	77145-1.RAW	12:08:37	791.21	Sample	OK	1
SEQ-CCB4	A9	1	6.10	0.09	0.00	77146-1.RAW	12:12:45	20.81	Sample	OK	1
F710207-BLK5	A10	20	6.10	1.61		77147-1.RAW	12:16:54	19.18	Sample	OK	1
F710207-BS1	A11	20	6.10	101.23		77148-1.RAW	12:21:02	826.97	Sample	OK	1
F710207-BSD1	A12	20	6.10	106.09		77149-1.RAW	12:25:11	866.33	Sample	OK	1
F710207-BS2	B1	400	6.10	2453.64		77150-1.RAW	12:29:19	1000.89	Sample	OK	1
1709617-01	B2	400	6.10	177.05		77151-1.RAW	12:34:43	77.88	Sample	OK	1
1709615-01	B3	400	6.10	3172.63		77152-1.RAW	12:38:51	1292.39	Sample	OK	1
1709615-02	B4	400	6.10	1547.94		77153-1.RAW	12:43:00	633.69	Sample	OK	1
1709617-04	B5	50	6.10	98.12		77154-1.RAW	12:49:10	324.34	Sample	OK	1
1709617-05	B6	50	6.10	104.21		77155-1.RAW	12:53:18	344.11	Sample	OK	1
1709617-06	B7	50	6.10	92.97		77156-1.RAW	12:57:27	307.64	Sample	OK	1
SEQ-CCV5	B8	1	6.10	4.94	98.70	77157-1.RAW	13:01:35	806.46	Sample	OK	1
SEQ-CCB5	B9	1	6.10	0.12	0.00	77158-1.RAW	13:05:43	25.03	Sample	OK	1
WS			6.10	0.21		77159-1.RAW	13:12:54	40.90	Sample	OK	1
1709617-07	B10	20	6.10	106.81		77160-1.RAW	13:17:02	872.22	Sample	OK	1
1709617-08	B11	20	6.10	102.75		77161-1.RAW	13:21:11	839.28	Sample	OK	1
1709617-09	B12	20	6.10	86.04		77162-1.RAW	13:25:19	703.79	Sample	OK	1
1709617-10	C1	20	6.10	99.21		77163-1.RAW	13:29:28	810.58	Sample	OK	1
1709617-11	C2	20	6.10	90.70		77164-1.RAW	13:33:36	741.52	Sample	OK	1
1709617-12	C3	20	6.10	67.19		77165-1.RAW	13:37:44	550.91	Sample	OK	1
1709617-13	C4	20	6.10	77.50		77166-1.RAW	13:41:53	634.53	Sample	OK	1
1709617-14	C5	20	6.10	79.78		77167-1.RAW	13:46:01	653.01	Sample	OK	1
1709617-15	C6	20	6.10	72.04		77168-1.RAW	13:50:10	590.23	Sample	OK	1
1709617-16	C7	20	6.10	88.67		77169-1.RAW	13:54:18	725.07	Sample	OK	1
SEQ-CCV6	C8	1	6.10	4.92	98.46	77170-1.RAW	13:58:27	804.51	Sample	OK	1
SEQ-CCB6	C9	1	6.10	0.18	0.00	77171-1.RAW	14:02:35	34.64	Sample	OK	1
1709617-17	C10	20	6.10	83.08		77172-1.RAW	14:06:43	679.81	Sample	OK	1
1709617-18	C11	20	6.10	104.36		77173-1.RAW	14:10:52	852.32	Sample	OK	1
1709617-19	C12	20	6.10	92.60		77174-1.RAW	14:15:00	756.98	Sample	OK	1
1709617-20	D1	20	6.10	60.07		77175-1.RAW	14:19:09	493.22	Sample	OK	1
1709617-01RE1	D2	20	6.10	73.03		77176-1.RAW	14:23:17	598.25	Sample	OK	1
F710207-DUP1	D3	400	6.10	1405.20		77177-1.RAW	14:27:25	575.82	Sample	OK	1
F710207-MS1	D4	400	6.10	6254.49	444.78	77178-1.RAW	14:31:34	2541.89	Sample	OK	1
F710207-MSD1	D5	400	6.10	6178.89		77179-1.RAW	14:35:42	2511.24	Sample	OK	1
F710207-MS2	D6	400	6.10	4857.66	78.59	77180-1.RAW	14:39:51	1975.57	Sample	OK	1

F710207-MSD2	D7	400	6.10	4912.83		77181-1.RAW	14:44:00	1997.93	Sample	OK	1
SEQ-CCV7	D8	1	6.10	5.13	102.62	77182-1.RAW	14:48:08	838.18	Sample	OK	1
SEQ-CCB7	D9	1	6.10	0.25	0.00	77183-1.RAW	14:52:17	47.01	Sample	OK	1
F710232-BLK1	D10	50	6.10	6.78		77184-1.RAW	14:56:25	28.08	Sample	OK	1
F710232-BLK2	D11	50	6.10	10.20		77185-2.RAW	15:03:40	39.19	Sample	OK	1
F710232-BS1	D12	400	6.10	2963.19		77186-1.RAW	15:07:49	1207.48	Sample	OK	1
F710232-BSD1	A1	400	6.10	2818.99		77187-1.RAW	15:11:57	1149.02	Sample	OK	1
1710167-01	A2	50	6.10	8.01		77188-1.RAW	15:16:05	32.08	Sample	OK	1
1710170-01	A3	50	6.10	5.45		77189-1.RAW	15:20:14	23.78	Sample	OK	1
F710232-DUP1	A4	50	6.10	3.33		77190-1.RAW	15:24:22	16.89	Sample	OK	1
F710232-MS1	A5	400	6.10	2823.91	282390.93	77191-1.RAW	15:28:31	1151.01	Sample	OK	1
F710232-MSD1	A6	400	6.10	2827.50		77192-1.RAW	15:32:39	1152.47	Sample	OK	1
SEQ-CCV8	A7	1	6.10	5.09	101.80	77193-1.RAW	15:36:48	831.55	Sample	OK	1
SEQ-CCB8	A8	1	6.10	0.13	0.00	77194-1.RAW	15:40:56	26.82	Sample	OK	1

Failing Data Report - 7J09011

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Becky 10/9/17
Analyst Reviewed By Date

Dan Meyer 10/10/17
Peer Reviewed By Date

Failing Data Report - 7J09012

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Becis 10/9/17
Analyst Reviewed By Date

Don Matem 10/10/17
Peer Reviewed By Date

ANALYSIS SEQUENCE

7J09011

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J09011-IBL1	QC	1			
7J09011-IBL2	QC	2			
7J09011-IBL3	QC	3			
7J09011-CAL1	QC	4	1704505		
7J09011-CAL2	QC	5	1704506		
7J09011-CAL3	QC	6	1704507		
7J09011-CAL4	QC	7	1704508		
7J09011-CAL5	QC	8	1704509		
7J09011-ICV1	QC	9	1705628		
7J09011-CCV1	QC	10	1705628		
7J09011-CCB1	QC	11			
7J09011-CCV2	QC	12	1705628		
7J09011-CCB2	QC	13			
7J09011-CCV3	QC	14	1705628		
7J09011-CCB3	QC	15			
F710207-BLK1	QC	16			
F710207-BLK2	QC	17			
F710207-BLK3	QC	18			
F710207-BLK4	QC	19			
7J09011-CCV4	QC	20	1705628		
7J09011-CCB4	QC	21			
F710207-BLK5	QC	22			
F710207-BS1	QC	23			
F710207-BSD1	QC	24			
F710207-BS2	QC	25			
1709617-01	Hg-CVAFS-T-7030	26			
1709615-01	Hg-CVAFS-T-7030	27			
1709615-02	Hg-CVAFS-T-7030	28			
1709617-04	Hg-CVAFS-T-7030	29			
1709617-05	Hg-CVAFS-T-7030	30			
1709617-06	Hg-CVAFS-T-7030	31			
7J09011-CCV5	QC	32	1705628		
7J09011-CCB5	QC	33			
1709617-07	Hg-CVAFS-T-7030	34			
1709617-08	Hg-CVAFS-T-7030	35			

Due Date: 10/20/2017

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Page 1 of 2

ANALYSIS SEQUENCE

7J09011

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709617-09	Hg-CVAFS-T-7030	36			
1709617-10	Hg-CVAFS-T-7030	37			
1709617-11	Hg-CVAFS-T-7030	38			
1709617-12	Hg-CVAFS-T-7030	39			
1709617-13	Hg-CVAFS-T-7030	40			
1709617-14	Hg-CVAFS-T-7030	41			
1709617-15	Hg-CVAFS-T-7030	42			
1709617-16	Hg-CVAFS-T-7030	43			
7J09011-CCV6	QC	44	1705628		
7J09011-CCB6	QC	45			
1709617-17	Hg-CVAFS-T-7030	46			
1709617-18	Hg-CVAFS-T-7030	47			
1709617-19	Hg-CVAFS-T-7030	48			
1709617-20	Hg-CVAFS-T-7030	49			
1709617-01RE1	Hg-CVAFS-T-7030	50			Added 10/9/2017 by BC
F710207-DUP1	QC	51			
F710207-MS1	QC	52			
F710207-MSD1	QC	53			
F710207-MS2	QC	54			
F710207-MSD2	QC	55			
7J09011-CCV7	QC	56	1705628		
7J09011-CCB7	QC	57			

Becis 10/9/17
 Samples Loaded By Date

Becis 10/9/17
 Data Processed By Date

10/2/17
10/6/17

ANALYSIS SEQUENCE

7J09012

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J09012-IBL1	QC	1			
7J09012-IBL2	QC	2			
7J09012-IBL3	QC	3			
7J09012-CAL1	QC	4	1704505		
7J09012-CAL2	QC	5	1704506		
7J09012-CAL3	QC	6	1704507		
7J09012-CAL4	QC	7	1704508		
7J09012-CAL5	QC	8	1704509		
7J09012-ICV1	QC	9	1705628		
F710193-BLK4	QC	10			
F710193-BLK5	QC	11			
F710193-BLK6	QC	12			
1709806-31RE1	Hg_FSTM_TRAP_A	13			Added 10/6/2017 by PL
7J09012-CCV1	QC	14	1705628		
7J09012-CCB1	QC	15			

Becis 10/9/17
 Samples Loaded By Date

Becis 10/9/17
 Data Processed By Date

10/8-8
 10/6/17

ANALYSIS SEQUENCE

7J09013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J09013-IBL1	QC	1			
7J09013-IBL2	QC	2			
7J09013-IBL3	QC	3			
7J09013-CAL1	QC	4	1704505		
7J09013-CAL2	QC	5	1704506		
7J09013-CAL3	QC	6	1704507		
7J09013-CAL4	QC	7	1704508		
7J09013-CAL5	QC	8	1704509		
7J09013-ICV1	QC	9	1705628		
7J09013-CCV1	QC	10	1705628		
7J09013-CCB1	QC	11			
7J09013-CCV2	QC	12	1705628		
7J09013-CCB2	QC	13			
7J09013-CCV3	QC	14	1705628		
7J09013-CCB3	QC	15			
7J09013-CCV4	QC	16	1705628		
7J09013-CCB4	QC	17			
7J09013-CCV5	QC	18	1705628		
7J09013-CCB5	QC	19			
7J09013-CCV6	QC	20	1705628		
7J09013-CCB6	QC	21			
7J09013-CCV7	QC	22	1705628		
7J09013-CCB7	QC	23			
F710232-BLK1	QC	24			
F710232-BLK2	QC	25			
F710232-BS1	QC	26			
F710232-BSD1	QC	27			
1710167-01	Hg-CVAFS-S-Bomb	28			QG00L-1 - Prep 2.0-2.15 grams
1710170-01	Hg-CVAFS-S-Bomb	29			QG00L-1 - Prep 2.0-2.15 grams
F710232-DUP1	QC	30			
F710232-MS1	QC	31			
F710232-MSD1	QC	32			
7J09013-CCV8	QC	33	1705628		
7J09013-CCB8	QC	34			

ANALYSIS SEQUENCE

7J09013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Becis 10/9/17
Samples Loaded By Date

Becis 10/9/17
Data Processed By Date

109801 Pa Pool
10/9/17

PREPARATION BENCH SHEET

F710193

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710193-BLK1	Blank	1	40					
F710193-BLK2	Blank	1	40					
F710193-BLK3	Blank	1	40					
F710193-BLK4	Blank	1	20					
F710193-BLK5	Blank	1	20					
F710193-BLK6	Blank	1	20					
F710193-BS1	LCS	1	40	1705554	200			
F710193-BSD1	LCS Dup	1	40	1705554	200			
F710193-DUP1	Duplicate [1709807-01]	1	40					
F710193-MS1	Matrix Spike [1709807-01]	0.0125	0.5	1704483	125			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F710193-MSD1	Matrix Spike Dup [1709807-01]	0.0125	0.5	1704483	125			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704483	THg 1ng/mL Calibration Standard	24-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710193

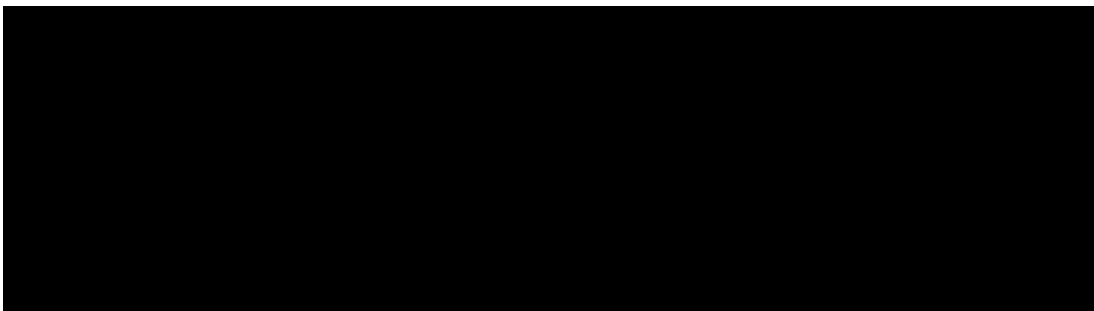
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709806-31	HGS1717-7-13	1	40	-	-	-		
1709806-31RE1	HGS1717-7-13	1	40	-	-	-	Added 10/6/2017 by PL	RR for confirmation. PL 10/6/17
1709806-32	HGS1717-7-14	1	40	-	-	-		
1709806-33	HGS1717-7-15	1	40	-	-	-		
1709806-34	HGS1717-7-16	1	40	-	-	-		
1709806-35	HGS1717-7-17	1	40	-	-	-		
1709806-36	HGS1717-7-18	1	40	-	-	-		
1709807-01	HGS1716-6-6	1	40	-	-	-		
1709807-02	HGS1716-7-6	1	40	-	-	-		
1709808-01	HGS1717-BM-6-7	1	40	-	-	-		



PREPARATION BENCH SHEET

F710232

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710232-BLK1	Blank	0.5	50					
F710232-BLK2	Blank	0.5	50					
F710232-BS1	LCS	0.5	50	1705879	50			
F710232-BSD1	LCS Dup	0.5	50	1705879	50			
F710232-DUP1	Duplicate [1710167-01]	2.0904	50					
F710232-MS1	Matrix Spike [1710167-01]	2.0929	50	1705879	50			
F710232-MSD1	Matrix Spike Dup [1710167-01]	2.0103	50	1705879	50			

<u>Standard ID(s):</u> 1705879	<u>Description:</u> EFGS-PREPSPIKE1/2, plus Hg	<u>Expiration:</u> 02-Jan-18 00:00	<u>Reagent ID(s):</u> 1703182 1705610 1705611 1705679 1705779	<u>Description:</u> 25% Hydroxylamine-HCl working solution THg Washstation (0.5% BrCl) THg Dilute 1% BrCl Fisher Nitric Acid, Tracemetal Grade 3% SnCl2 THg reductant	<u>Expiration:</u> 24-Nov-17 00:00 22-Jan-18 00:00 15-Mar-19 00:00 13-Mar-18 00:00
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PREPARATION BENCH SHEET

F710232

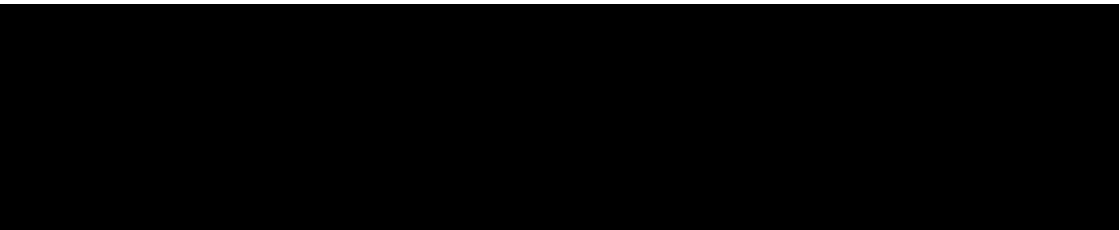
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710167-01	740-2017-10040027 EUUSBO2-00094666	2.0897	50	-	See COC	-	MSM Powder, Lot #1710017 QG00L-1	
1710170-01	740-2017-10040028 EUUSBO2-00094667	2.0807	50	-	See COC	-	MSM Powder, Lot #1710117 QG00L-1	



PREPARATION BENCH SHEET

F710207

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710207-BLK1	Blank	0.25	20					
F710207-BLK2	Blank	0.25	20					
F710207-BLK3	Blank	0.25	20					
F710207-BLK4	Blank	0.26	20					Pre Blank 1709617
F710207-BLK5	Blank	0.282	20					PostBlank 1709617
F710207-BS1	LCS	0.25	20	1704421	20			
F710207-BS2	DORM4	0.1295	20	1705412	129.5			
F710207-BSD1	LCS Dup	0.25	20	1704421	20			
F710207-DUP1	Duplicate [1709615-02]	0.254	20					
F710207-MS1	Matrix Spike [1709615-02]	0.273	20	1705554	100			
F710207-MS2	Matrix Spike [1709617-01RE1]	0.281	20	1705554	100			
F710207-MSD1	Matrix Spike Dup [1709615-02]	0.26	20	1705554	100			
F710207-MSD2	Matrix Spike Dup [1709617-01RE1]	0.288	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00

PREPARATION BENCH SHEET

F710207

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709615-01	ES-13_17LT012_091317_TOM_01_WB	0.28	20	-	-	-	Sample contains enough volume for QC	
1709615-02	ES-13_17ET718_091817_TOM_02_WB	0.271	20	QC	-	-	MS/MSD	
1709617-01	FRB-01_17SN001_091217_MUM_01_WB	0.27	20	QC	-	-	MS/MSD	
1709617-01RE1	FRB-01_17SN001_091217_MUM_01_WB	0.27	20	QC	-	-	MS/MSD Added 10/9/2017 by BC	Added 10/9/2017 by BC
1709617-04	FRB-01_17SN001_091217_MUM_04_WB	0.267	20	-	-	-		
1709617-05	FRB-01_17SN001_091217_MUM_05_WB	0.267	20	-	-	-		
1709617-06	FRB-01_17SN001_091217_MUM_06_WB	0.278	20	-	-	-		
1709617-07	FRB-01_17SN001_091217_MUM_07_WB	0.269	20	-	-	-		
1709617-08	FRB-01_17SN001_091217_MUM_08_WB	0.262	20	-	-	-		
1709617-09	FRB-01_17SN001_091217_MUM_09_WB	0.269	20	-	-	-		
1709617-10	FRB-01_17SN001_091217_MUM_10_WB	0.285	20	-	-	-		
1709617-11	FRB-01_17SN001_091217_MUM_11_WB	0.261	20	-	-	-		
1709617-12	FRB-01_17SN001_091217_MUM_12_WB	0.266	20	-	-	-		
1709617-13	FRB-01_17SN001_091217_MUM_13_WB	0.263	20	-	-	-		
1709617-14	FRB-01_17SN001_091217_MUM_14_WB	0.251	20	-	-	-		
1709617-15	FRB-01_17SN001_091217_MUM_15_WB	0.271	20	-	-	-		
1709617-16	FRB-01_17SN001_091217_MUM_16_WB	0.259	20	-	-	-		
1709617-17	FRB-01_17SN001_091217_MUM_17_WB	0.273	20	-	-	-		
1709617-18	FRB-01_17SN001_091217_MUM_18_WB	0.258	20	-	-	-		

PREPARATION BENCH SHEET

F710207

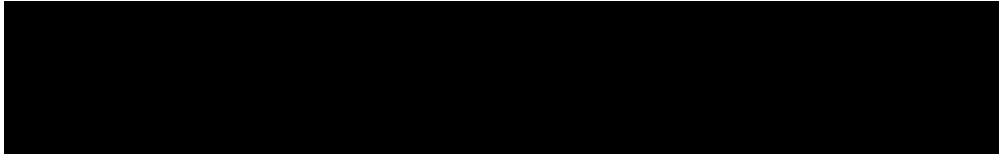
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

1709617-19	FRB-01_17SN001_091217_MUM_19_WB	0.274	20	-	-	-		
1709617-20	FRB-01_17SN001_091217_MUM_20_WB	0.256	20	-	-	-		



Hg RR

PREPARATION BENCH SHEET

BL 10/6/17
2600-3

F710193

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710193-BLK1	Blank	1	40					
F710193-BLK2	Blank	1	40					
F710193-BLK3	Blank	1	40					
F710193-BLK4	Blank	1	20					100X
F710193-BLK5	Blank	1	20					100X
F710193-BLK6	Blank	1	20					100X
F710193-BS1	LCS	1	40	1705554	200			
F710193-BSD1	LCS Dup	1	40	1705554	200			
F710193-DUP1	Duplicate [1709807-01]	1	40					
F710193-MS1	Matrix Spike [1709807-01]	0.0125	0.5	1704483	125			[Spk] 1 Trap->40mL; 20mL->20mL; Spiked 0.5mL
F710193-MSD1	Matrix Spike Dup [1709807-01]	0.0125	0.5	1704483	125			[Spk] 1 Trap->40mL; 20mL->20mL; Spiked 0.5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704483	THg 1ng/mL Calibration Standard	24-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00

100X = 300µL

PREPARATION BENCH SHEET

BC 10/6/17
2000-3

F710193

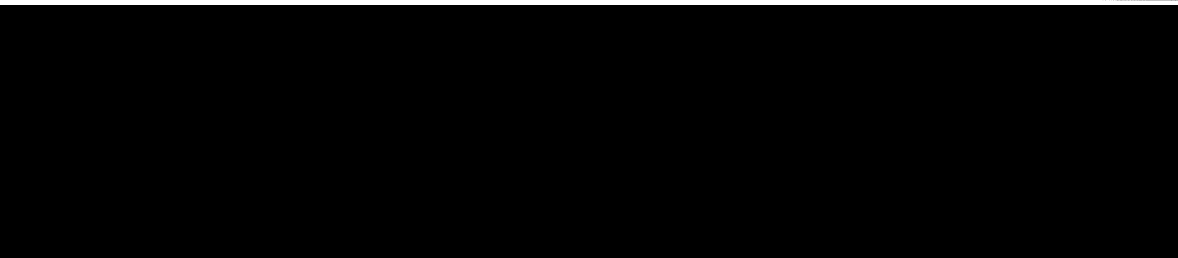
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B	Analysis Comments
1709806-31	HGS1717-7-13	1	40	-	-	-			
1709806-31RE1	(A + B bed) HGS1717-7-13	1	40	-	-	-	Added 10/5/2017 by PL 100X	100X	RR for confirmation. PL 10/5/17
1709806-32	HGS1717-7-14	1	40	-	-	-			
1709806-33	HGS1717-7-15	1	40	-	-	-			
1709806-34	HGS1717-7-16	1	40	-	-	-			
1709806-35	HGS1717-7-17	1	40	-	-	-			
1709806-36	HGS1717-7-18	1	40	-	-	-			
1709807-01	HGS1716-6-6	1	40	-	-	-			
1709807-02	HGS1716-7-6	1	40	-	-	-			
1709808-01	HGS1717-BM-6-7	1	40	-	-	-			



PREPARATION BENCH SHEET

F710232

Eurofins Frontier Global Sciences, Inc.

BC 10/6/17

2600-3

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710232-BLK1	Blank	0.5	50					50X
F710232-BLK2	Blank	0.5	50					50X
F710232-BS1	LCS	0.5	50	1705879	50			400X
F710232-BSD1	LCS Dup	0.5	50	1705879	50			400X
F710232-DUP1	Duplicate [1710167-01]	2.0904	50					50X
F710232-MS1	Matrix Spike [1710167-01]	2.0929	50	1705879	50			400X
F710232-MSD1	Matrix Spike Dup [1710167-01]	2.0103	50	1705879	50			400X

Standard ID(s): 1705879
Description: EFGS-PREPSPIKE1/2, plus Hg

Expiration: 02-Jan-18 00:00

Reagent ID(s): 1705679
Description: Fisher Nitric Acid, Tracemetal Grade

Expiration: 15-Mar-19 00:00

50X = 1ml
400X = 125µl

1703182
1705610
1705611
1705779

Due Date: 10/9/2017

PREPARATION BENCH SHEET

F710232

Eurofins Frontier Global Sciences, Inc.

BL 10/6/17

26003

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710167-01	740-2017-10040027 EUUSBO2-00094666	2.0897	50	-	See COC	-	MSM Powder QG00L-1 - Prep 2.0-2.1:	50X
1710170-01	740-2017-10040028 EUUSBO2-00094667	2.0807	50	-	See COC	-	MSM Powder QG00L-1 - Prep 2.0-2.1:	50X

Ceutical Digestions

Batch TM / Hg (circle one): F710230/231/232

Boiling Chip Lot # 225690942

Batch continued on next page? Yes No

1° Tech.: WMP 2° Tech.: JEL Date/Time In: 10/5/2017 1450

Date/Time Out: 10/6/2017 0850 by Timer

Spiked By: WMP Spike Witness (SW): LU10/5/17

Final Vol. (mL)/Initials/Date:
50 WMP 10/6/2017

Balance ID/Cal.? (N): 20 / 10/5/2017

Digestion: Oven ID: OVN-02 Other ID: _____

Vial Type: 50 mL Centrifuge Tube Teflon

Analysis: ICP-MS CV-AFS
 LC-ICP-MS Other: _____

Thermometer ID: 1312060130 Initial: Temp. (°C): 160 / 116.6 / 116.9
target raw corrected

Final: Temp. (°C): 160 / TIMER
target raw corrected

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (<input checked="" type="checkbox"/> g <input type="checkbox"/> mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
1	N359	N391	F710230-BLW	N/A	0.9540	Boiling Chips (BC)	-	
2	N/A	N350	F710230-BLW ^{UCLG-17} F710230-BLW	N/A	0.7979	BC	-	
3	N/A	X045	F710230-B51	N/A	0.6572	BC	-	
4	T405B	X035	F710230-B501	N/A	0.8481	BC	-	
5	N367	X121	1710167-01	A	2.0897	Powder (P)	-	
6	N492	X003	1710167-01 Dup1	A	2.0904	P	-	
7	X176	N354	1710167-01 MS1	A	2.0929	P	-	
8	N/A	X020	1710167-01 MS01	A	2.0103	P	-	
9	X166	T4054	1710150-01	E	0.9738	Food (F)	-	

Initials: W

	Spike Name	SW	Volume (µL)	LIMS ID	Pipette ID	Cal. Date
A	Propylene 1	<input type="checkbox"/>	50	1703595	S12664	10/4/2017
B	Propylene 2	<input type="checkbox"/>	50	1703596		
C	THg	<input type="checkbox"/>	50	1705076		
D		<input type="checkbox"/>				
E		<input type="checkbox"/>				

Preparation Method SOP: EFGS-141		
Reagent	Volume (mL)	LIMS ID
HNO ₃	2.5	1705679

1 Combined Spike ID: A-C = 1703819 ; Batches: F710230/231/232
 2 Combined Spike ID: = ; Batches: WMP 10/5/2017

Batch continued on next page? Yes No

Ceutical Digestions

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount <small>(g □ mL)</small>	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
10	N/A	N470	1710150-01MS2	E	0.6181	F	/	
11	N/A	X044	1710150-01MS2	E	0.5646	F	/	Dry mmpic/06/2017
12	N472	TH020	1710135-01	A	0.5104	F	/	
13	N440	N465	1710136-01	B	2.5116	Liquid(L)	/	
14	N/A	X002	1710149-01	A	0.6815	Syrup(S)	/	
15	X001	X175	1710149-02	A	0.5175	S	/	
16	N/A	N418	1710150-02	E	0.7414	F	/	
17	N/A	N456	1710152-01	A	0.9792	F	/	
18	X105	TH020	1710152-02	A	1.1032	F	/	
19	N/A	X015	1710161-01	A	0.5666	L	/	
20	N/A	X197	1710161-02	A	0.9166	L	/	
21	TH020	N376	1710161-03	A	0.6933	L	/	
22	N/A	N455	1710161-04	A	0.7750	L	/	
23	N/A	N480	1710161-05	A	0.5959	L	/	
24	N/A	N398	1710163-04	A	1.1982	F	/	
25	N/A	X098	1710170-01	A	2.0807	P	/	
26	N/A	N393	1710163-01	A	1.0959	P	/	
27	N/A	N396	1710171-01	A	1.0634	Oil(O)	/	
28	X057	TH047	1710171-02	A	1.0352	O	/	
29	N/A	X141	1710161-06	A	0.5947	F	/	
30								
31								
32	mmpic/06/2017							
33								
34								

Initials: *W*

Density by EFGS-019

Required? Yes No

Batch ID: _____

Density = [(D-C)/B]

A: Sample ID / Flask ID	B: Volume (mL)	C: Flask mass (g)	D: Flask + sample (g)	Density (g/mL)
/				
/				
/				
/				

Sample Preparation Review Checklist

Revision: 3
Effective: Dec. 5, 2013

Technician/Date: MMP 10/5/2017
Upload/Date: MMP 10/5/2017

Samples to lab: 1450
Reviewer/Date: BL 10/9/17

Batch #: F710232

EFGS Preparation Method			
<input type="checkbox"/>	FGS-032	Co-APDC	
<input type="checkbox"/>	FGS-052	Oven Digestion (Total Recoverable Metals)	<input type="checkbox"/> ICPMS <input type="checkbox"/> AFS
<input type="checkbox"/>	FGS-058	Nitric Digestion	<input type="checkbox"/> ICPMS <input type="checkbox"/> CVAFS
<input type="checkbox"/>	FGS-084	Modified Aqua Regia (Ag, Sb only)	
<input type="checkbox"/>	FGS-108	Cr+6 Sediments/Tissues	
<input type="checkbox"/>	FGS-109	RP	
<input type="checkbox"/>	FGS-111	HF Bomb Digestion	<input type="checkbox"/> ICPMS <input type="checkbox"/> CVAFS
<input checked="" type="checkbox"/>	FGS-141	Nitric Bomb Digestion	<input type="checkbox"/> ICPMS <input checked="" type="checkbox"/> CVAFS
<input type="checkbox"/>	FGS-145	Oven Digestion (As, Se Speciation)	<input type="checkbox"/> As <input type="checkbox"/> Se
<input type="checkbox"/>	FGS-146	Microwave Digestion (Nutraceuticals)	<input type="checkbox"/>
<input type="checkbox"/>	FGS-146	Microwave Digestion (CPSC-Metal)	
<input type="checkbox"/>	FGS-146	Microwave Digestion (CPSC-Non-Metal/Paint)	
<input type="checkbox"/>	FGS-149	Oven Digestion (Aqueous Nutraceuticals)	
<input type="checkbox"/>	NA	Other:	

Initials	SOP Date	DOC Date
<u>MMP</u>	<u>2/11/2017</u>	<u>12/23/2016</u>

Comments: _____

Conditionally formatted training files located at:
\\us34file\General and Admin\Quality Assurance\Training\Training Master
(Contact QA for any problems regarding these training files.)

Analytes: Hg

1. Is any SOP/DOC expiring within one week of Submission Date?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	Reviewer Initials: <u>BL</u>	Tertiary Review: <u>DM</u>
Data cannot be reported without a current IDOC/CDOC.		If YES, notify supervisor and technician immediately.		
2. Check prep method	<input checked="" type="checkbox"/> YES			
(a) For Ceuticals: Is correct Hg code being used in LIMS?	<input type="checkbox"/> ICPMS <input checked="" type="checkbox"/> CV-AFS	<input type="checkbox"/> 70:30 <input type="checkbox"/> N/A		
3. Compare sample ID with benchsheet	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A		
4. Verify time of submission? (if not met please explain in the comments)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A		
(a) Oven bomb - digestion start time before 14:00?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A		
(b) Microwave - submitted to the lab before 16:00?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A			
5. Check for transcription errors from benchsheet	<input checked="" type="checkbox"/> YES			
(a) Check and compare initial and final volumes	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A		
(b) Check and compare mass	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A		
(c) Has the number of pills been documented (benchsheet and LIMS)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A			
(d) Benchsheet prep date MUST match actual prep date	<input checked="" type="checkbox"/> YES			
6. Samples per Batch? Check QC Requirements	<input type="checkbox"/> ≤ 20 <input checked="" type="checkbox"/> ≤ 10			
(a) PBs per batch?	<input type="checkbox"/> 3 PBs <input checked="" type="checkbox"/> 2 PB <input type="checkbox"/> 1 PB			
(b) BS, BS/BSD or CRM in batch?	<input type="checkbox"/> BS <input checked="" type="checkbox"/> BS/BSD <input type="checkbox"/> CRM			
(c) MS/MSD in batch?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(d) MD in batch?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(e) Client specific: WO #'s: _____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A			
(f) Are there any client specific requests and/or alterations?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A			
Document: _____				
(g) Correct LIMS spike ID included for BS, BS/BSD and/or MS/MSD?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(h) Correct 'source' designated for MD/MS/MSD?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(i) For EFGS-filtered samples, was a filtration blank included?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A			
7. Are the samples appropriately spiked?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(a) Is the spike and amount used appropriate and entered into LIMS?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(b) For IDOCs, was there a spike witness? (initials <u>must</u> be in logbook)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(c) Spikes added:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			

NOTE: Due to LIMS software constraints, new LIMS IDs need to be created when multiple/ supplemental spikes are used. Enter new LIMS ID below and use table to list all spikes included in it.

Spike LIMS ID: 1705879

Spike Name	LIMS ID	µL	Spike Name	LIMS ID	µL
<u>Pop spike 1</u>	<u>1703595</u>	<u>50</u>			
<u>Pop spike 2</u>	<u>1703596</u>	<u>50</u>			
<u>Trly</u>	<u>1705878</u>	<u>50</u>			

PREPARATION BENCH SHEET

RC 10/6/17
2600-3

F710207

Euromics Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710207-BLK1	Blank	0.25	20					20x
F710207-BLK2	Blank	0.25	20					20x
F710207-BLK3	Blank	0.25	20					20x
F710207-BLK4	Blank	0.26	20					Pre Blank 1709617 20x
F710207-BLK5	Blank	0.282	20					PostBlank 1709617 20x
F710207-BS1	LCS	0.25	20	1704421	20			20x
F710207-BS2	DORM4	0.1295	20	1705412	129.5			400x
F710207-BSD1	LCS Dup	0.25	20	1704421	20			20x
F710207-DUP1	Duplicate [1709615-02]	0.254	20					400x
F710207-MS1	Matrix Spike [1709615-02]	0.273	20	1705554	100			400x
F710207-MS2	Matrix Spike [1709617-01]	0.281	20	1705554	100			20 400x
F710207-MSD1	Matrix Spike Dup [1709615-02]	0.26	20	1705554	100			400x
F710207-MSD2	Matrix Spike Dup [1709617-01]	0.288	20	1705554	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00			

20x = 2.5µL
400x = 125µL

1703182
1705610
1705611
1705779

PREPARATION BENCH SHEET

MC 10/6/17
2600-3

F710207

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709615-01	ES-13_17LT012_091317_TOM_01_WB	0.28	20	-	-	-	Sample contains enough volume for QC 400x	
1709615-02	ES-13_17ET718_091817_TOM_02_WB	0.271	20	QC	-	-	MS/MSD 400x	
1709617-01	FRB-01_17SN001_091217_MUM_01_WB	0.27	20	QC	-	-	MS/MSD 400x → 20x	
1709617-04	FRB-01_17SN001_091217_MUM_04_WB	0.267	20	-	-	-	50x	
1709617-05	FRB-01_17SN001_091217_MUM_05_WB	0.267	20	-	-	-	50x	
1709617-06	FRB-01_17SN001_091217_MUM_06_WB	0.278	20	-	-	-	50x	
1709617-07	FRB-01_17SN001_091217_MUM_07_WB	0.269	20	-	-	-	20x	
1709617-08	FRB-01_17SN001_091217_MUM_08_WB	0.262	20	-	-	-	20x	
1709617-09	FRB-01_17SN001_091217_MUM_09_WB	0.269	20	-	-	-	20x	
1709617-10	FRB-01_17SN001_091217_MUM_10_WB	0.285	20	-	-	-	20x	
1709617-11	FRB-01_17SN001_091217_MUM_11_WB	0.261	20	-	-	-	20x	
1709617-12	FRB-01_17SN001_091217_MUM_12_WB	0.266	20	-	-	-	20x	
1709617-13	FRB-01_17SN001_091217_MUM_13_WB	0.263	20	-	-	-	20x	
1709617-14	FRB-01_17SN001_091217_MUM_14_WB	0.251	20	-	-	-	20x	
1709617-15	FRB-01_17SN001_091217_MUM_15_WB	0.271	20	-	-	-	20x	
1709617-16	FRB-01_17SN001_091217_MUM_16_WB	0.259	20	-	-	-	20x	
1709617-17	FRB-01_17SN001_091217_MUM_17_WB	0.273	20	-	-	-	20x	
1709617-18	FRB-01_17SN001_091217_MUM_18_WB	0.258	20	-	-	-	20x	
1709617-19	FRB-01_17SN001_091217_MUM_19_WB	0.274	20	-	-	-	20x	

BC 10/6/17
2600-3

PREPARATION BENCH SHEET

F710207

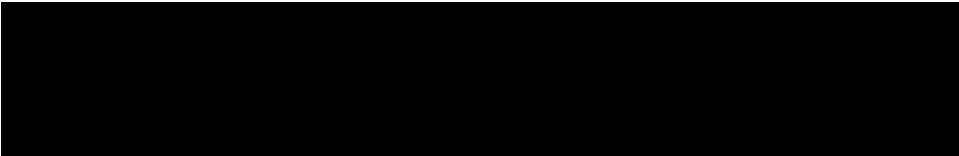
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

1709617-20	FRB-01_17SN001_091217_MUM_20_WB	0.256	20	-	-	-	20x	
------------	---------------------------------	-------	----	---	---	---	-----	--



Technician: BC, WLF Batch#: F710207 Date: 10/3/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 10.19 Calibrated? Yes No Therm.#: 140418012 Calibrated? Yes No
 *Time in: 17:15 Actual Temp. (raw): 80.4 °C w/ CF: 80.1 °C
 Time out: 19:15 Actual Temp. (raw): Timer °C w/ CF: Timer °C
 *Time in can't begin before target temperature is reached
w/ timer 10/4/17 spiked by wlf ms/msd

Final vol.: 20 mL (LIMS ID: _____) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: BC 10/3/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0077892 Calibration Date: 10/2/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705859 Dispenser #: 02K2749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 BJL
 Glass Vial # 00068124 Boiling Chip lot # 1702591 *Hotblock Position: M5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710207-BK1	0.284	23	1709617-10	0.285	GS 2 = DORM-4 LIMS: 1705859
2	F710207-BK2	0.288	24	1709617-11	0.261	
3	F710207-BK3	0.254	25	1709617-12	0.266	
4	F710207-BK4	0.260	26	1709617-13	0.263	
5	F710207-BK5	0.282	27	1709617-14	0.251	Comments DUPI, MSI, MSD1. Source: 1709615-02
6	F710207-BS1	0.251	28	1709617-15	0.271	
7	F710207-BSD1	0.289	29	1709617-16	0.259	MS2, MSD 2: Source: 1709617-03
8	F710207-BS2	0.1255 ^{0.1255 w/ timer}	30	1709617-17	0.273	
9	1709615-01	0.280	31	1709617-18	0.258	BS/BSA spiked with acid of 1704421 by wlf 10/3/17 BLK4 + BLK5 are Pre/Post blanks for 1709617-1709618 wlf 10/3/17
10	F710207-BS3	0.271	32	1709617-19	0.274	
11	F710207-MS1	0.273	33	1709617-20	0.256	
12	F710207-MSD1	0.260	34			
13	F710207-DUPI	0.254	35			
14	1709617-01	0.270	36			
15	F710207-MS2	0.281	37			
16	F710207-MSD2	0.288	38			
17	1709617-04	0.267	39			
18	1709617-05	0.267	40			
19	1709617-06	0.278	41			
20	1709617-07	0.269	42			
21	1709617-08	0.262	43			
22	1709617-09	0.269	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J09011, 7J09012, 7J09013
Reviewer: DM	Dataset ID(s): THg26003-171006-2
Date: 10/9/2017	WO (s) #: Various
Batch #(s): F710193, F710207, F710232	

• Select the correct preparation method.

Analyte	Prep Method	Matrix
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest
<input checked="" type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric
<input checked="" type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation
<input type="checkbox"/> Hg0	NA	Water
<input type="checkbox"/> Inorg Hg	NA	Water

Analyst Initials: BC **Reviewer Initials:** DM

- | | | | |
|---|---|--|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | | | |
| (b) Check 5% of transcription from Instrument print-out and Excel file | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | | | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 50 ml / aliquot = Excel dilution value | | | |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: <u>BC</u>	Sequence(s) #: <u>7J09011, 7J09012, 7J09013</u>
Reviewer: <u>0</u>	Dataset ID(s): <u>THg26003-171006-2</u>
Date: <u>10/9/2017</u>	WO (s) #: <u>Various</u>
Batch #(s): <u>F710193, F710207, F710232</u>	<u>0</u>

Analyst Initials BC Reviewer Initials DM

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J09011, 7J09012, 7J09013
Reviewer: 0	Dataset ID(s): THg26003-171006-2
Date: 10/9/2017	WO (s) #: Various
Batch #(s): F710193, F710207, F710232	0

Analyst Initials BC **Reviewer Initials** _____

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | |
|---|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/11/17, 1/27/17 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: <u>BC 10/13/2017</u> _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>4/26/17, 5/19/17</u> _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>4/26/17, 5/19/17</u> _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709616

PO#

C012505850

October 13, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709616

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October 13, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-FP_17ET658_091517_TOM_01_WB	1709616-01	Tissue	15-Sep-17 10:34	22-Sep-17 10:25

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King**Reported:**
13-Oct-17 12:49

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM. The samples were received intact, on-ice within two sealed coolers at -27.1 and -21.6 degrees Celsius.

Client requested Lipids Analysis by NOAA1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Sample was prepped in batch F710204 and analyzed in Sequence 7J09010. There were no client requested sample for the source QC in this work order.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries.

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:49

All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

Client: AMSC Foster Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/23/17 Labeled By: CSB

Project: _____

Received By: LM Label Verified By: BC

of Coolers Received: 2 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>170404186</u> CF: <u>10.1</u> °C	Date/time: <u>9/22/17 10:25</u> By: <u>LM</u>
Cooler 1: <u>-27.22</u> °C w/ CF: <u>-27.12</u> °C	Cooler 4: °C w/ CF: °C
Cooler 2: <u>-21.73</u> °C w/ CF: <u>-21.63</u> °C	Cooler 5: °C w/ CF: °C
Cooler 3: °C w/ CF: °C	Cooler 6: °C w/ CF: °C


Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:		
Date and time of collection:		
Sampled by:		
Preservation type:		
Requested analyses:		
Required signatures:		
Internal COC required:		

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4846 Cooler 2: 7878 1037 1884

1709616



1709616

Environmental Analysis Request/Chain of Custody

Client: Ameo Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101		Project Name: USDC Penobscot		PN # 3616166032 04A.055		Analyses Requested		For Lab Use Only	
Project Manager: Rod Pendleton		P.O. # C012505850		PWS D #:					
Sample: JB		Quote #:		Matrix		<input type="checkbox"/> Tissue <input type="checkbox"/> Ground Surface <input type="checkbox"/> Sediment <input type="checkbox"/> Potable Water <input type="checkbox"/> WPCES <input type="checkbox"/> Other: _____		SCR #: _____ Preservation Codes: 1 = HCl 10 = Traceable 2 = HNO ₃ 8 = Trace 3 = H ₂ SO ₄ 9 = H ₂ O ₂ 4 = Other	
State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Collection					
Sample Identification		Date		Time		Grab		Composite	
1 ES FP_17ET658_001517_CM_05_WB		091517		07:30		X		X	
2									
Turnaround Time Requested (TAT) (please check):		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Relinquished by:		Date		Time	
(Rush TAT is subject to laboratory approval and surcharges.)				<i>FLB</i>		5/11/2017		1630	
Notes:				Relinquished by:		Date		Time	
FedEx # <u>5103 4447 4843</u> # of Copies <u>2</u> Sample disposal - Hold 1 quartment 3 tanks for until 30 days after delivery of report Report and TDU to: dense.king@barredfw.com / 078-697-4633				Relinquished by:		Date		Time	
				Relinquished by:		Date		Time	
				Relinquished by:		Date		Time	
Data Package Options (please check if required)		High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		Relinquished by Commercial Carrier:		JPS _____ FedEx _____ Other _____		Temperature upon receipt: _____ °C	
EIDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		If yes, format: _____							

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.4A055 Project Manager: Denise King	Reported: 13-Oct-17 12:49
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**ES-FP_17ET658_091517_TOM_01_WB
1709616-01**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	37.2	1.68	15.0	ng/g	400	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	
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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.4A055 Project Manager: Denise King	Reported: 13-Oct-17 12:49
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J09010 - F710204											
Cal Standard (7J09010-CAL1)					Prepared & Analyzed: 06-Oct-17						
Mercury	0.520	-		ng/L	0.50100		104				
Cal Standard (7J09010-CAL2)					Prepared & Analyzed: 06-Oct-17						
Mercury	1.027	-		ng/L	1.0020		103				
Cal Standard (7J09010-CAL3)					Prepared & Analyzed: 06-Oct-17						
Mercury	4.852	-		ng/L	5.0100		96.8				
Cal Standard (7J09010-CAL4)					Prepared & Analyzed: 06-Oct-17						
Mercury	19.52	-		ng/L	20.040		97.4				
Cal Standard (7J09010-CAL5)					Prepared & Analyzed: 06-Oct-17						
Mercury	39.46	-		ng/L	40.080		98.5				
Calibration Blank (7J09010-CCB1)					Prepared & Analyzed: 06-Oct-17						
Mercury	0.070	-		ng/L							
Calibration Blank (7J09010-CCB2)					Prepared & Analyzed: 06-Oct-17						
Mercury	0.056	-		ng/L							
Calibration Blank (7J09010-CCB3)					Prepared & Analyzed: 06-Oct-17						
Mercury	0.056	-		ng/L							
Calibration Blank (7J09010-CCB4)					Prepared & Analyzed: 06-Oct-17						
Mercury	0.049	-		ng/L							
Calibration Blank (7J09010-CCB5)					Prepared & Analyzed: 06-Oct-17						
Mercury	0.123	-		ng/L							

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:49

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J09010 - F710204											
Calibration Blank (7J09010-CCB6) Prepared & Analyzed: 06-Oct-17											
Mercury	0.107	-		ng/L							
Calibration Blank (7J09010-CCB7) Prepared & Analyzed: 06-Oct-17											
Mercury	0.196	-		ng/L							
Calibration Check (7J09010-CCV1) Prepared & Analyzed: 06-Oct-17											
Mercury	4.749	-		ng/L	5.0000		95.0	77-123			
Calibration Check (7J09010-CCV2) Prepared & Analyzed: 06-Oct-17											
Mercury	4.751	-		ng/L	5.0000		95.0	77-123			
Calibration Check (7J09010-CCV3) Prepared & Analyzed: 06-Oct-17											
Mercury	4.551	-		ng/L	5.0000		91.0	77-123			
Calibration Check (7J09010-CCV4) Prepared & Analyzed: 06-Oct-17											
Mercury	4.659	-		ng/L	5.0000		93.2	77-123			
Calibration Check (7J09010-CCV5) Prepared & Analyzed: 06-Oct-17											
Mercury	4.715	-		ng/L	5.0000		94.3	77-123			
Calibration Check (7J09010-CCV6) Prepared & Analyzed: 06-Oct-17											
Mercury	4.755	-		ng/L	5.0000		95.1	77-123			
Calibration Check (7J09010-CCV7) Prepared & Analyzed: 06-Oct-17											
Mercury	4.963	-		ng/L	5.0000		99.3	77-123			
Instrument Blank (7J09010-IBL1) Prepared & Analyzed: 06-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J09010 - F710204

Instrument Blank (7J09010-IBL2)					Prepared & Analyzed: 06-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J09010-IBL3)					Prepared & Analyzed: 06-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7J09010-ICV1)					Prepared & Analyzed: 06-Oct-17						
Mercury	4.849	-		ng/L	5.0000		97.0	79-121			

Batch F710204 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710204-BLK1)					Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	0.204	0.090	0.800	ng/g							J
Blank (F710204-BLK2)					Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	0.134	0.090	0.800	ng/g							J
Blank (F710204-BLK3)					Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	0.141	0.090	0.800	ng/g							J
Blank (F710204-BLK4)					Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	ND	0.079	0.704	ng/g							F-03, U
Blank (F710204-BLK5)					Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	ND	0.085	0.755	ng/g							F-03, U
LCS (F710204-BS1)					Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	7.229	0.090	0.800	ng/g	8.0160		90.2	75-125			

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271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:49

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710204 - EFGS-011 Nitric/Sulfuric Hg Digestion

LCS (F710204-BS2)					Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	331.0	3.50	31.2	ng/g	373.70		88.6	75-125			
LCS Dup (F710204-BSD1)					Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	7.582	0.090	0.800	ng/g	8.0160		94.6	75-125	4.76	24	
Duplicate (F710204-DUP1)					Source: 1709614-02 Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	374.4	1.65	14.7	ng/g		382.5			2.15	24	
Matrix Spike (F710204-MS1)					Source: 1709614-01 Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	591.4	1.61	14.4	ng/g	359.71	273.5	88.4	71-125			
Matrix Spike (F710204-MS2)					Source: 1709614-02 Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	695.8	1.62	14.5	ng/g	362.32	382.5	86.5	71-125			
Matrix Spike Dup (F710204-MSD1)					Source: 1709614-01 Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	606.3	1.72	15.4	ng/g	384.62	273.5	86.5	71-125	2.12	24	
Matrix Spike Dup (F710204-MSD2)					Source: 1709614-02 Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	712.6	1.64	14.7	ng/g	366.30	382.5	90.1	71-125	4.16	24	

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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
13-Oct-17 12:49

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26002-171006-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 06, 2017

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7J09009, 7J09010

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	101.15 units	202.30	94.85 units	189.71	104.0 %Rec
SEQ-CAL2	1	1.00 ng/L	193.78 units	193.78	187.48 units	187.48	102.7 %Rec
SEQ-CAL3	1	5.00 ng/L	891.63 units	178.33	885.33 units	177.07	97.0 %Rec
SEQ-CAL4	1	20.00 ng/L	3568.39 units	178.42	3562.09 units	178.10	97.6 %Rec
SEQ-CAL5	1	40.00 ng/L	7206.72 units	180.17	7200.42 units	180.01	98.6 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 182.47 +/- 5.74 3.1% RSD 186.60

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.30 units	±4.41	0.03 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.030 ng/L	±0.017
BLK	2	1	0.520 ng/L	
BLK	3	3	1.995 ng/L	±0.479
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: DM 10/9/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-IBL1	1	10/6/2017 8:11:31	86717-1.RAW	8:11:31 AM	1.21			-5.1	-0.028	-0.028	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	10/6/2017 8:15:39	86718-1.RAW	8:15:39 AM	9.10			2.8	0.015	0.015	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	10/6/2017 8:19:48	86719-1.RAW	8:19:48 AM	8.58			2.3	0.013	0.013	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	10/6/2017 8:23:56	86720-1.RAW	8:23:56 AM	101.15			94.9	0.520	0.520	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	10/6/2017 8:28:05	86721-1.RAW	8:28:05 AM	193.78			187.5	1.027	1.027	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	10/6/2017 8:32:13	86722-1.RAW	8:32:13 AM	891.63			885.3	4.852	4.852	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	10/6/2017 8:36:22	86723-1.RAW	8:36:22 AM	3568.39			3562.1	19.521	19.521	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	10/6/2017 8:40:30	86724-1.RAW	8:40:30 AM	7206.72			7200.4	39.460	39.460	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	10/6/2017 8:44:38	86725-1.RAW	8:44:38 AM	891.20			884.9	4.849	4.849	ng/L	
Hg2600-2	BC	SAM	ws		10/6/2017 9:04:31	86726-1.RAW	9:04:31 AM	71.78		x	65.5	0.359	0.000	ng/L	
Hg2600-2	BC	BLK	F710248-BLK1	1	10/6/2017 9:08:40	86727-1.RAW	9:08:40 AM	10.63	1		4.3	0.024	0.024	ng/L	
Hg2600-2	BC	BLK	F710248-BLK2	1	10/6/2017 9:12:48	86728-1.RAW	9:12:48 AM	15.15	1		8.9	0.049	0.049	ng/L	
Hg2600-2	BC	BLK	F710248-BLK3	1	10/6/2017 9:16:56	86729-1.RAW	9:16:56 AM	9.35	1		3.1	0.017	0.017	ng/L	
Hg2600-2	BC	BLK	F710248-BLK4	10	10/6/2017 9:21:05	86730-1.RAW	9:21:05 AM	15.78	2		9.5	0.052	0.520	ng/L	
Hg2600-2	BC	SAM	F710248-BS1	1	10/6/2017 9:25:13	86731-1.RAW	9:25:13 AM	2765.38	1		2759.1	15.091	15.091	ng/L	
Hg2600-2	BC	SAM	F710248-BSD1	1	10/6/2017 9:29:22	86732-1.RAW	9:29:22 AM	2744.00	1		2737.7	14.974	14.974	ng/L	
Hg2600-2	BC	SAM	1709709-01	1	10/6/2017 9:33:30	86733-1.RAW	9:33:30 AM	27.56	1		21.3	0.087	0.087	ng/L	
Hg2600-2	BC	SAM	1709709-02	1	10/6/2017 9:37:39	86734-1.RAW	9:37:39 AM	27.79	1		21.5	0.088	0.088	ng/L	
Hg2600-2	BC	SAM	1709709-03	1	10/6/2017 9:41:47	86735-1.RAW	9:41:47 AM	327.18	1		320.9	1.729	1.729	ng/L	
Hg2600-2	BC	SAM	1709709-04	1	10/6/2017 9:45:55	86736-1.RAW	9:45:55 AM	159.41	1		153.1	0.809	0.809	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	10/6/2017 9:50:04	86737-1.RAW	9:50:04 AM	872.91			866.6	4.749	4.749	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	10/6/2017 9:54:12	86738-1.RAW	9:54:12 AM	19.13			12.8	0.070	0.070	ng/L	
Hg2600-2	BC	SAM	1709709-05	1	10/6/2017 9:58:21	86739-1.RAW	9:58:21 AM	183.70	1		177.4	0.943	0.943	ng/L	
Hg2600-2	BC	SAM	1709709-06	1	10/6/2017 10:02:29	86740-1.RAW	10:02:29 AM	105.44	1		99.1	0.514	0.514	ng/L	
Hg2600-2	BC	SAM	1710042-01	1	10/6/2017 10:06:38	86741-1.RAW	10:06:38 AM	13.58	1		7.3	0.010	0.010	ng/L	
Hg2600-2	BC	SAM	1710142-01	1	10/6/2017 10:10:46	86742-1.RAW	10:10:46 AM	402.56	1		396.3	2.142	2.142	ng/L	
Hg2600-2	BC	SAM	1710142-02	1	10/6/2017 10:14:54	86743-1.RAW	10:14:54 AM	55.33	1		49.0	0.239	0.239	ng/L	
Hg2600-2	BC	SAM	1710142-03	1	10/6/2017 10:19:03	86744-1.RAW	10:19:03 AM	423.00	1		416.7	2.254	2.254	ng/L	
Hg2600-2	BC	SAM	1710142-04	1	10/6/2017 10:23:11	86745-1.RAW	10:23:11 AM	52.92	1		46.6	0.226	0.226	ng/L	
Hg2600-2	BC	SAM	1710142-05	10	10/6/2017 10:27:20	86746-1.RAW	10:27:20 AM	203.49	2		197.2	1.029	10.287	ng/L	
Hg2600-2	BC	SAM	1710142-06	1	10/6/2017 10:31:28	86747-1.RAW	10:31:28 AM	53.23	1		46.9	0.228	0.228	ng/L	
Hg2600-2	BC	SAM	1710143-01	1	10/6/2017 10:35:36	86748-1.RAW	10:35:36 AM	107.58	1		101.3	0.525	0.525	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	10/6/2017 10:39:45	86749-1.RAW	10:39:45 AM	873.27			867.0	4.751	4.751	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	10/6/2017 10:43:53	86750-1.RAW	10:43:53 AM	16.56			10.3	0.056	0.056	ng/L	
Hg2600-2	BC	SAM	1710143-02	1	10/6/2017 10:48:02	86751-1.RAW	10:48:02 AM	102.18	1		95.9	0.496	0.496	ng/L	
Hg2600-2	BC	SAM	1710143-03	1	10/6/2017 10:52:10	86752-1.RAW	10:52:10 AM	115.58	1		109.3	0.569	0.569	ng/L	
Hg2600-2	BC	SAM	1710143-04	1	10/6/2017 10:56:18	86753-1.RAW	10:56:18 AM	155.17	1		148.9	0.786	0.786	ng/L	
Hg2600-2	BC	SAM	1710143-05	1	10/6/2017 11:00:27	86754-1.RAW	11:00:27 AM	225.21	1		218.9	1.170	1.170	ng/L	
Hg2600-2	BC	SAM	1710143-06	1	10/6/2017 11:04:35	86755-1.RAW	11:04:35 AM	89.74	1		83.4	0.428	0.428	ng/L	
Hg2600-2	BC	SAM	F710248-DUP1	1	10/6/2017 11:08:44	86756-1.RAW	11:08:44 AM	323.94	1		317.6	1.711	1.711	ng/L	
Hg2600-2	BC	SAM	F710248-MS1	1	10/6/2017 11:12:52	86757-1.RAW	11:12:52 AM	1160.78	1		1154.5	6.297	6.297	ng/L	
Hg2600-2	BC	SAM	F710248-MSD1	1	10/6/2017 11:17:01	86758-1.RAW	11:17:01 AM	1157.67	1		1151.4	6.280	6.280	ng/L	
Hg2600-2	BC	SAM	F710248-MS2	1	10/6/2017 11:21:09	86759-1.RAW	11:21:09 AM	1277.71	1		1271.4	6.938	6.938	ng/L	
Hg2600-2	BC	SAM	F710248-MSD2	1	10/6/2017 11:25:17	86760-1.RAW	11:25:17 AM	1246.41	1		1240.1	6.766	6.766	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	10/6/2017 11:29:26	86761-1.RAW	11:29:26 AM	836.69			830.4	4.551	4.551	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	10/6/2017 11:33:34	86762-1.RAW	11:33:34 AM	16.57			10.3	0.056	0.056	ng/L	
Hg2600-2	BC	SAM	EFGS06396 TV 50ng	100	10/6/2017 11:37:43	86763-1.RAW	11:37:43 AM	806.07	x		799.8	4.383	438.293	ng/L	
Hg2600-2	BC	SAM	EFGS17786 TV 50ng	100	10/6/2017 11:41:51	86764-1.RAW	11:41:51 AM	840.87	x		834.6	4.574	457.365	ng/L	
Hg2600-2	BC	SAM	EFGS18673 TV 100ng	100	10/6/2017 11:46:00	86765-1.RAW	11:46:00 AM	1648.48	x		1642.2	9.000	899.953	ng/L	
Hg2600-2	BC	SAM	EFGS03004 TV 100ng	100	10/6/2017 11:50:08	86766-1.RAW	11:50:08 AM	1698.18	x		1691.9	9.272	927.190	ng/L	
Hg2600-2	BC	BLK	F710204-BLK1	20	10/6/2017 11:54:16	86767-1.RAW	11:54:16 AM	29.52	3		23.2	0.127	2.545	ng/L	
Hg2600-2	BC	BLK	F710204-BLK2	20	10/6/2017 11:58:25	86768-1.RAW	11:58:25 AM	21.60	3		15.3	0.084	1.677	ng/L	
Hg2600-2	BC	BLK	F710204-BLK3	20	10/6/2017 12:02:33	86769-1.RAW	12:02:33 PM	22.37	3		16.1	0.088	1.762	ng/L	
Hg2600-2	BC	SAM	*F710204-BLK4	20	10/6/2017 12:06:42	86770-1.RAW	12:06:42 PM	22.42	3		16.1	-0.011	-0.228	ng/L	
Hg2600-2	BC	SAM	*F710204-BLK5	20	10/6/2017 12:10:50	86771-1.RAW	12:10:50 PM	17.98	3		11.7	-0.036	-0.714	ng/L	
Hg2600-2	BC	SAM	F710204-BS1	20	10/6/2017 12:14:58	86772-1.RAW	12:14:58 PM	848.96	3		842.7	4.518	90.365	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	10/6/2017 12:19:07	86773-1.RAW	12:19:07 PM	856.45			850.2	4.659	4.659	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-CCB4	1	10/6/2017 12:23:15	86774-1.RAW	12:23:15 PM	15.28			9.0	0.049	0.049	ng/L	
Hg2600-2	BC	SAM	F710204-BSD1	20	10/6/2017 12:27:24	86775-1.RAW	12:27:24 PM	889.19	3		882.9	4.739	94.774	ng/L	
Hg2600-2	BC	SAM	F710204-BS2	400	10/6/2017 12:31:32	86776-1.RAW	12:31:32 PM	973.45	3		967.2	5.295	2118.091	ng/L	
Hg2600-2	BC	SAM	WS		10/6/2017 12:40:48	86777-1.RAW	12:40:48 PM	43.36		x	37.1	0.203	0.000	ng/L	
Hg2600-2	BC	SAM	1709614-01	400	10/6/2017 12:44:56	86778-1.RAW	12:44:56 PM	1735.42	3		1729.1	9.471	3788.397	ng/L	
Hg2600-2	BC	SAM	WS		10/6/2017 12:58:28	86779-1.RAW	12:58:28 PM	52.13		x	45.8	0.251	0.000	ng/L	
Hg2600-2	BC	SAM	1709614-02	400	10/6/2017 13:02:36	86780-1.RAW	1:02:36 PM	2397.66	3		2391.4	13.100	5240.085	ng/L	
Hg2600-2	BC	SAM	1709614-15	400	10/6/2017 13:06:45	86781-1.RAW	1:06:45 PM	510.49	3		504.2	2.758	1103.242	ng/L	
Hg2600-2	BC	SAM	1709614-16	400	10/6/2017 13:10:53	86782-1.RAW	1:10:53 PM	479.54	3		473.2	2.588	1035.396	ng/L	
Hg2600-2	BC	SAM	1709614-17	400	10/6/2017 13:15:02	86783-1.RAW	1:15:02 PM	392.58	3		386.3	2.112	844.772	ng/L	
Hg2600-2	BC	SAM	1709614-18	400	10/6/2017 13:19:10	86784-1.RAW	1:19:10 PM	802.55	3		796.3	4.359	1743.463	ng/L	
Hg2600-2	BC	SAM	1709614-19	400	10/6/2017 13:23:19	86785-1.RAW	1:23:19 PM	933.95	3		927.7	5.079	2031.503	ng/L	
Hg2600-2	BC	SAM	1709614-20	400	10/6/2017 13:27:27	86786-1.RAW	1:27:27 PM	1061.41	3		1055.1	5.777	2310.907	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	10/6/2017 13:31:35	86787-1.RAW	1:31:35 PM	866.66			860.4	4.715	4.715	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	10/6/2017 13:35:44	86788-1.RAW	1:35:44 PM	28.68			22.4	0.123	0.123	ng/L	
Hg2600-2	BC	SAM	1709615-03	400	10/6/2017 13:39:52	86789-1.RAW	1:39:52 PM	343.15	3		336.9	1.841	736.418	ng/L	
Hg2600-2	BC	SAM	1709615-04	400	10/6/2017 13:44:01	86790-1.RAW	1:44:01 PM	222.38	3		216.1	1.179	471.679	ng/L	
Hg2600-2	BC	SAM	1709615-05	400	10/6/2017 13:48:09	86791-1.RAW	1:48:09 PM	301.63	3		295.3	1.614	645.402	ng/L	
Hg2600-2	BC	SAM	1709615-06	400	10/6/2017 13:52:18	86792-1.RAW	1:52:18 PM	205.95	3		199.7	1.089	435.663	ng/L	
Hg2600-2	BC	SAM	1709615-07	400	10/6/2017 13:56:26	86793-1.RAW	1:56:26 PM	311.91	3		305.6	1.670	667.937	ng/L	
Hg2600-2	BC	SAM	1709615-08	400	10/6/2017 14:00:34	86794-1.RAW	2:00:34 PM	376.45	3		370.2	2.024	809.414	ng/L	
Hg2600-2	BC	SAM	1709615-09	400	10/6/2017 14:04:43	86795-1.RAW	2:04:43 PM	1410.33	3		1404.0	7.689	3075.771	ng/L	
Hg2600-2	BC	SAM	1709615-10	400	10/6/2017 14:08:51	86796-1.RAW	2:08:51 PM	1234.81	3		1228.5	6.728	2691.015	ng/L	
Hg2600-2	BC	SAM	1709615-11	400	10/6/2017 14:13:00	86797-1.RAW	2:13:00 PM	1007.00	3		1000.7	5.479	2191.635	ng/L	
Hg2600-2	BC	SAM	1709616-01	400	10/6/2017 14:17:08	86798-1.RAW	2:17:08 PM	232.80	3		226.5	1.236	494.521	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	10/6/2017 14:21:16	86799-1.RAW	2:21:16 PM	874.04			867.7	4.755	4.755	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	10/6/2017 14:25:25	86800-1.RAW	2:25:25 PM	25.74			19.4	0.107	0.107	ng/L	
Hg2600-2	BC	SAM	1709617-02	20	10/6/2017 14:29:33	86801-1.RAW	2:29:33 PM	1061.97	3		1055.7	5.686	113.712	ng/L	
Hg2600-2	BC	SAM	1709617-03	20	10/6/2017 14:33:42	86802-1.RAW	2:33:42 PM	644.66	3		638.4	3.399	67.973	ng/L	
Hg2600-2	BC	SAM	1709615-06RE1	100	10/6/2017 14:37:50	86803-1.RAW	2:37:50 PM	822.04	3		815.7	4.451	445.051	ng/L	
Hg2600-2	BC	SAM	F710204-DUP1	400	10/6/2017 14:41:59	86804-1.RAW	2:41:59 PM	2329.77	3		2323.5	12.728	5091.264	ng/L	
Hg2600-2	BC	SAM	F710204-MS1	400	10/6/2017 14:46:07	86805-1.RAW	2:46:07 PM	3757.48	3		3751.2	20.552	8220.931	ng/L	
Hg2600-2	BC	SAM	F710204-MSD1	400	10/6/2017 14:50:15	86806-1.RAW	2:50:15 PM	3602.95	3		3596.7	19.705	7882.188	ng/L	
Hg2600-2	BC	SAM	F710204-MS2	400	10/6/2017 14:54:24	86807-1.RAW	2:54:24 PM	4387.25	3		4381.0	24.004	9601.443	ng/L	
Hg2600-2	BC	SAM	F710204-MSD2	400	10/6/2017 14:58:32	86808-1.RAW	2:58:32 PM	4444.82	3		4438.5	24.319	9727.641	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	10/6/2017 15:02:41	86809-1.RAW	3:02:41 PM	911.85			905.6	4.963	4.963	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	10/6/2017 15:06:49	86810-1.RAW	3:06:49 PM	42.06			35.8	0.196	0.196	ng/L	

TotalMercury EPA1631
 Operati BC
 BlankS: 6.2943
 Calib Eqn: Conc = (Area-6.294
 Run Date: 10/6/2017
 Blank SD: 4.410430011
 Worksh THg260(CalibFa 182.47
 Status: QC Warnings:4/QC E
 Run Time: 12:54:19
 Blank RSD%: 70.07057723
 Method ##### R: 1
 R²: 1
 CF SD: 5.739273964
 CF RSD%: 3.14524882
 Descrip THg26002-171006-1

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	5.10					86712-1.RAW	7:52:06	931.51	Clean	OK	1
clean				0.00	0.02					86713-1.RAW	7:54:57	3.62	Clean	OK	1
ws				6.29	0.03					86714-1.RAW	7:59:06	11.25	Sample	OK	1
ws				6.29	0.00					86715-1.RAW	8:03:14	5.17	Sample	OK	1
ws				6.29	0.01					86716-1.RAW	8:07:23	7.33	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.01					86717-1.RAW	8:11:31	1.21	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.05					86718-1.RAW	8:15:39	9.10	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					86719-1.RAW	8:19:48	8.58	Sample	OK	1
SEQ-CAL1	A4		1	6.29	0.52			103.96		86720-1.RAW	8:23:56	101.15	Sample	OK	1
SEQ-CAL2	A5		1	6.29	1.03			102.75		86721-1.RAW	8:28:05	193.78	Sample	OK	1
SEQ-CAL3	A6		1	6.29	4.85			97.04		86722-1.RAW	8:32:13	891.63	Sample	OK	1
SEQ-CAL4	A7		1	6.29	19.52			97.61		86723-1.RAW	8:36:22	3568.39	Sample	OK	1
SEQ-CAL5	A8		1	6.29	39.46			98.65		86724-1.RAW	8:40:30	7206.72	Sample	OK	1
SEQ-ICV1	A9		1	6.29	4.85			96.99		86725-1.RAW	8:44:38	891.20	Sample	OK	1
ws				6.29	0.36					86726-1.RAW	9:04:31	71.78	Sample	OK	1
F710248-BLK1	A10		1	6.29	0.02					86727-1.RAW	9:08:40	10.63	Sample	OK	1
F710248-BLK2	A11		1	6.29	0.05					86728-1.RAW	9:12:48	15.15	Sample	OK	1
F710248-BLK3	A12		1	6.29	0.02					86729-1.RAW	9:16:56	9.35	Sample	OK	1
F710248-BLK4	A13		10	6.29	0.52					86730-1.RAW	9:21:05	15.78	Sample	OK	1
F710248-BS1	A14		1	6.29	15.12					86731-1.RAW	9:25:13	2765.38	Sample	OK	1
F710248-BSD1	A15		1	6.29	15.00					86732-1.RAW	9:29:22	2744.00	Sample	OK	1
1709709-01	A16		1	6.29	0.12					86733-1.RAW	9:33:30	27.56	Sample	OK	1
1709709-02	A17		1	6.29	0.12					86734-1.RAW	9:37:39	27.79	Sample	OK	1
1709709-03	A18		1	6.29	1.76					86735-1.RAW	9:41:47	327.18	Sample	OK	1
1709709-04	A19		1	6.29	0.84					86736-1.RAW	9:45:55	159.41	Sample	OK	1
SEQ-CCV1	A20		1	6.29	4.75			94.98		86737-1.RAW	9:50:04	872.91	Sample	OK	1
SEQ-CCB1	A21		1	6.29	0.07			0.00		86738-1.RAW	9:54:12	19.13	Sample	OK	1
1709709-05	B1		1	6.29	0.97					86739-1.RAW	9:58:21	183.70	Sample	OK	1
1709709-06	B2		1	6.29	0.54					86740-1.RAW	10:02:29	105.44	Sample	OK	1
1710042-01	B3		1	6.29	0.04					86741-1.RAW	10:06:38	13.58	Sample	OK	1
1710142-01	B4		1	6.29	2.17					86742-1.RAW	10:10:46	402.56	Sample	OK	1
1710142-02	B5		1	6.29	0.27					86743-1.RAW	10:14:54	55.33	Sample	OK	1
1710142-03	B6		1	6.29	2.28					86744-1.RAW	10:19:03	423.00	Sample	OK	1
1710142-04	B7		1	6.29	0.26					86745-1.RAW	10:23:11	52.92	Sample	OK	1
1710142-05	B8		10	6.29	10.81					86746-1.RAW	10:27:20	203.49	Sample	OK	1
1710142-06	B9		1	6.29	0.26					86747-1.RAW	10:31:28	53.23	Sample	OK	1
1710143-01	B10		1	6.29	0.56					86748-1.RAW	10:35:36	107.58	Sample	OK	1
SEQ-CCV2	B11		1	6.29	4.75			95.02		86749-1.RAW	10:39:45	873.27	Sample	OK	1
SEQ-CCB2	B12		1	6.29	0.06			0.00		86750-1.RAW	10:43:53	16.56	Sample	OK	1
1710143-02	B13		1	6.29	0.53					86751-1.RAW	10:48:02	102.18	Sample	OK	1
1710143-03	B14		1	6.29	0.60					86752-1.RAW	10:52:10	115.58	Sample	OK	1
1710143-04	B15		1	6.29	0.82					86753-1.RAW	10:56:18	155.17	Sample	OK	1
1710143-05	B16		1	6.29	1.20					86754-1.RAW	11:00:27	225.21	Sample	OK	1

1710143-06	B17	1	6.29	0.46		86755-1.RAW	11:04:35	89.74	Sample	OK	1
F710248-DUP1	B18	1	6.29	1.74		86756-1.RAW	11:08:44	323.94	Sample	OK	1
F710248-MS1	B19	1	6.29	6.33	230.84	86757-1.RAW	11:12:52	1160.78	Sample	OK	1
F710248-MSD1	B20	1	6.29	6.31		86758-1.RAW	11:17:01	1157.67	Sample	OK	1
F710248-MS2	B21	1	6.29	6.97	83.85	86759-1.RAW	11:21:09	1277.71	Sample	OK	1
F710248-MSD2	C1	1	6.29	6.80		86760-1.RAW	11:25:17	1246.41	Sample	OK	1
SEQ-CCV3	C2	1	6.29	4.55	91.02	86761-1.RAW	11:29:26	836.69	Sample	OK	1
SEQ-CCB3	C3	1	6.29	0.06	0.00	86762-1.RAW	11:33:34	16.57	Sample	OK	1
EFGS06396 TV !	C4	100	6.29	438.30		86763-1.RAW	11:37:43	806.07	Sample	OK	1
EFGS17786 TV !	C5	100	6.29	457.37		86764-1.RAW	11:41:51	840.87	Sample	OK	1
EFGS18673 TV	C6	100	6.29	899.96		86765-1.RAW	11:46:00	1648.48	Sample	OK	1
EFGS03004 TV	C7	100	6.29	927.19		86766-1.RAW	11:50:08	1698.18	Sample	OK	1
F710204-BLK1	C8	20	6.29	2.55		86767-1.RAW	11:54:16	29.52	Sample	OK	1
F710204-BLK2	C9	20	6.29	1.68		86768-1.RAW	11:58:25	21.60	Sample	OK	1
F710204-BLK3	C10	20	6.29	1.76		86769-1.RAW	12:02:33	22.37	Sample	OK	1
*F710204-BLK4	C11	20	6.29	1.77		86770-1.RAW	12:06:42	22.42	Sample	OK	1
*F710204-BLK5	C12	20	6.29	1.28		86771-1.RAW	12:10:50	17.98	Sample	OK	1
F710204-BS1	C13	20	6.29	92.36		86772-1.RAW	12:14:58	848.96	Sample	OK	1
SEQ-CCV4	C14	1	6.29	4.66	93.18	86773-1.RAW	12:19:07	856.45	Sample	OK	1
SEQ-CCB4	C15	1	6.29	0.05	0.00	86774-1.RAW	12:23:15	15.28	Sample	OK	1
F710204-BSD1	C16	20	6.29	96.77		86775-1.RAW	12:27:24	889.19	Sample	OK	1
F710204-BS2	C17	400	6.29	2120.09		86776-1.RAW	12:31:32	973.45	Sample	OK	1
WS			6.29	0.20		86777-1.RAW	12:40:48	43.36	Sample	OK	1
1709614-01	C18	400	6.29	3790.40		86778-1.RAW	12:44:56	1735.42	Sample	OK	1
WS			6.29	0.25		86779-1.RAW	12:58:28	52.13	Sample	OK	1
1709614-02	C19	400	6.29	5242.08		86780-1.RAW	13:02:36	2397.66	Sample	OK	1
1709614-15	C20	400	6.29	1105.23		86781-1.RAW	13:06:45	510.49	Sample	OK	1
1709614-16	C21	400	6.29	1037.39		86782-1.RAW	13:10:53	479.54	Sample	OK	1
1709614-17	A1	400	6.29	846.76		86783-1.RAW	13:15:02	392.58	Sample	OK	1
1709614-18	A2	400	6.29	1745.47		86784-1.RAW	13:19:10	802.55	Sample	OK	1
1709614-19	A3	400	6.29	2033.50		86785-1.RAW	13:23:19	933.95	Sample	OK	1
1709614-20	A4	400	6.29	2312.91		86786-1.RAW	13:27:27	1061.41	Sample	OK	1
SEQ-CCV5	A5	1	6.29	4.71	94.30	86787-1.RAW	13:31:35	866.66	Sample	OK	1
SEQ-CCB5	A6	1	6.29	0.12	0.00	86788-1.RAW	13:35:44	28.68	Sample	OK	1
1709615-03	A7	400	6.29	738.42		86789-1.RAW	13:39:52	343.15	Sample	OK	1
1709615-04	A8	400	6.29	473.68		86790-1.RAW	13:44:01	222.38	Sample	OK	1
1709615-05	A9	400	6.29	647.39		86791-1.RAW	13:48:09	301.63	Sample	OK	1
1709615-06	A10	400	6.29	437.66		86792-1.RAW	13:52:18	205.95	Sample	OK	1
1709615-07	A11	400	6.29	669.93		86793-1.RAW	13:56:26	311.91	Sample	OK	1
1709615-08	A12	400	6.29	811.41		86794-1.RAW	14:00:34	376.45	Sample	OK	1
1709615-09	A13	400	6.29	3077.77		86795-1.RAW	14:04:43	1410.33	Sample	OK	1
1709615-10	A14	400	6.29	2693.01		86796-1.RAW	14:08:51	1234.81	Sample	OK	1
1709615-11	A15	400	6.29	2193.65		86797-1.RAW	14:13:00	1007.00	Sample	OK	1
1709616-01	A16	400	6.29	496.52		86798-1.RAW	14:17:08	232.80	Sample	OK	1
SEQ-CCV6	A17	1	6.29	4.76	95.11	86799-1.RAW	14:21:16	874.04	Sample	OK	1
SEQ-CCB6	A18	1	6.29	0.11	0.00	86800-1.RAW	14:25:25	25.74	Sample	OK	1
1709617-02	A19	20	6.29	115.71		86801-1.RAW	14:29:33	1061.97	Sample	OK	1

1709617-03	A20	20	6.29	69.97		86802-1.RAW	14:33:42	644.66	Sample	OK	1
1709615-06RE1	A21	100	6.29	447.05		86803-1.RAW	14:37:50	822.04	Sample	OK	1
F710204-DUP1	B1	400	6.29	5093.26		86804-1.RAW	14:41:59	2329.77	Sample	OK	1
F710204-MS1	B2	400	6.29	8222.93	161.42	86805-1.RAW	14:46:07	3757.48	Sample	OK	1
F710204-MSD1	B3	400	6.29	7884.19		86806-1.RAW	14:50:15	3602.95	Sample	OK	1
F710204-MS2	B4	400	6.29	9603.45	121.78	86807-1.RAW	14:54:24	4387.25	Sample	OK	1
F710204-MSD2	B5	400	6.29	9729.64		86808-1.RAW	14:58:32	4444.82	Sample	OK	1
SEQ-CCV7	B6	1	6.29	4.96	99.25	86809-1.RAW	15:02:41	911.85	Sample	OK	1
SEQ-CCB7	B7	1	6.29	0.20	0.00	86810-1.RAW	15:06:49	42.06	Sample	OK	1
SnCl2 1705960	B8	1	6.29	0.07		86811-1.RAW	15:10:57	19.50	Sample	OK	1
CLEAN			0.00	0.02		86812-1.RAW	15:13:49	4.44	Clean	OK	1
CLEAN						86813-1.RAW	15:16:40	10.60	Clean	OK	1
WS						86814-1.RAW	15:20:49	24.57	Sample	OK	1
WS						86815-1.RAW	15:24:57	11.10	Sample	OK	1

Failing Data Report - 7J09010

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Becy 10/9/17
Analyst Reviewed By Date

Dan Maxam 10/9/17
Peer Reviewed By Date

ANALYSIS SEQUENCE

7J09009



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J09009-IBL1	QC	1			
7J09009-IBL2	QC	2			
7J09009-IBL3	QC	3			
7J09009-CAL1	QC	4	1704505		
7J09009-CAL2	QC	5	1704506		
7J09009-CAL3	QC	6	1704507		
7J09009-CAL4	QC	7	1704508		
7J09009-CAL5	QC	8	1704509		
7J09009-ICV1	QC	9	1705628		
F710248-BLK1	QC	10			
F710248-BLK2	QC	11			
F710248-BLK3	QC	12			
F710248-BLK4	QC	13			
F710248-BS1	QC	14			
F710248-BSD1	QC	15			
1709709-01	Hg-CVAFS-W-1631	16			
1709709-02	Hg-CVAFS-W-1631	17			
1709709-03	Hg-CVAFS-W-1631	18			
1709709-04	Hg-CVAFS-W-1631	19			
7J09009-CCV1	QC	20	1705628		
7J09009-CCB1	QC	21			
1709709-05	Hg-CVAFS-W-1631	22			
1709709-06	Hg-CVAFS-W-1631	23			
1710042-01	Hg-CVAFS-W-1631	24			Do not oven samples (CCV 90-110%, CCB <), <1/2 PQL
1710142-01	Hg-CVAFS-W-1631	25			
1710142-02	Hg-CVAFS-W-1631	26			
1710142-03	Hg-CVAFS-W-1631	27			
1710142-04	Hg-CVAFS-W-1631	28			
1710142-05	Hg-CVAFS-W-1631	29			
1710142-06	Hg-CVAFS-W-1631	30			
1710143-01	Hg-CVAFS-W-1631	31			Scan all data for level IV report
7J09009-CCV2	QC	32	1705628		
7J09009-CCB2	QC	33			
1710143-02	Hg-CVAFS-W-1631	34			Scan all data for level IV report
1710143-03	Hg-CVAFS-W-1631	35			Scan all data for level IV report

Due Date: 10/9/2017

20 of 43

Page 1 of 2

ANALYSIS SEQUENCE

7J09010

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J09010-IBL1	QC	1			
7J09010-IBL2	QC	2			
7J09010-IBL3	QC	3			
7J09010-CAL1	QC	4	1704505		
7J09010-CAL2	QC	5	1704506		
7J09010-CAL3	QC	6	1704507		
7J09010-CAL4	QC	7	1704508		
7J09010-CAL5	QC	8	1704509		
7J09010-ICV1	QC	9	1705628		
7J09010-CCV1	QC	10	1705628		
7J09010-CCB1	QC	11			
7J09010-CCV2	QC	12	1705628		
7J09010-CCB2	QC	13			
7J09010-CCV3	QC	14	1705628		
7J09010-CCB3	QC	15			
F710204-BLK1	QC	16			
F710204-BLK2	QC	17			
F710204-BLK3	QC	18			
F710204-BLK4	QC	19			
F710204-BLK5	QC	20			
F710204-BS1	QC	21			
7J09010-CCV4	QC	22	1705628		
7J09010-CCB4	QC	23			
F710204-BSD1	QC	24			
F710204-BS2	QC	25			
1709614-01	Hg-CVAFS-T-7030	26			
1709614-02	Hg-CVAFS-T-7030	27			
1709614-15	Hg-CVAFS-T-7030	28			
1709614-16	Hg-CVAFS-T-7030	29			
1709614-17	Hg-CVAFS-T-7030	30			
1709614-18	Hg-CVAFS-T-7030	31			
1709614-19	Hg-CVAFS-T-7030	32			
1709614-20	Hg-CVAFS-T-7030	33			
7J09010-CCV5	QC	34	1705628		
7J09010-CCB5	QC	35			

Due Date: 10/20/2017

22 of 43

Page 1 of 2

ANALYSIS SEQUENCE

7J09010

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709615-03	Hg-CVAFS-T-7030	36			
1709615-04	Hg-CVAFS-T-7030	37			
1709615-05	Hg-CVAFS-T-7030	38			
1709615-06	Hg-CVAFS-T-7030	39			
1709615-07	Hg-CVAFS-T-7030	40			
1709615-08	Hg-CVAFS-T-7030	41			
1709615-09	Hg-CVAFS-T-7030	42			
1709615-10	Hg-CVAFS-T-7030	43			
1709615-11	Hg-CVAFS-T-7030	44			
1709616-01	Hg-CVAFS-T-7030	45			
7J09010-CCV6	QC	46	1705628		
7J09010-CCB6	QC	47			
1709617-02	Hg-CVAFS-T-7030	48			
1709617-03	Hg-CVAFS-T-7030	49			
1709615-06RE1	Hg-CVAFS-T-7030	50			Added 10/9/2017 by BC
F710204-DUP1	QC	51			
F710204-MS1	QC	52			
F710204-MSD1	QC	53			
F710204-MS2	QC	54			
F710204-MSD2	QC	55			
7J09010-CCV7	QC	56	1705628		
7J09010-CCB7	QC	57			

Beck 10/9/17
 Samples Loaded By Date

Beck 10/9/17
 Data Processed By Date

10nd 21
10/6/17

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710248-BLK1	Blank	100	101					SOURCE 1710143-07
F710248-BLK2	Blank	100	101					SOURCE 1710143-07
F710248-BLK3	Blank	100	101					SOURCE 1710143-07
F710248-BLK4	Blank	10	20					
F710248-BS1	LCS	50	50.5	1705054	100			
F710248-BSD1	LCS Dup	50	50.5	1705054	100			
F710248-DUP1	Duplicate [1709709-03]	100	101					
F710248-MS1	Matrix Spike [1709709-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710248-MS2	Matrix Spike [1710142-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710248-MSD1	Matrix Spike Dup [1709709-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710248-MSD2	Matrix Spike Dup [1710142-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705054	Nist 1641D 200X	21-Aug-18 00:00	1705580	0.2 N BRCL SEPTEMBER 2017	14-Mar-18 00:00
			1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709709-01	OS-RB-20170921	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	
1709709-02	OS-RB-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	
1709709-03	NC376OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	
1709709-04	NC376OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	
1709709-05	NC377OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	
1709709-06	NC377OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	
1710042-01	October 2017 Monthly Water ICPMS Sink 1	100	101	-	-	-	Do not oven samples (CCV 90-110%, t	
1710142-01	Lagoons	100	101	-	-	-		
1710142-02	Lagoons Field Blank	100	101	-	-	-		
1710142-03	Clarifier	100	101	-	-	-		
1710142-04	Clarifier Field Blank	100	101	-	-	-		
1710142-05	A149	10	20	-	-	-		
1710142-06	A149 Blank	100	101	-	-	-		
1710143-01	OL-2678-01	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-02	OL-2678-02	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-03	OL-2678-03	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-04	OL-2678-04	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-05	OL-2678-05	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-06	OL-2678-06	100	101	-	-	-	Preservation Blank Created Scan all dat	

PREPARATION BENCH SHEET

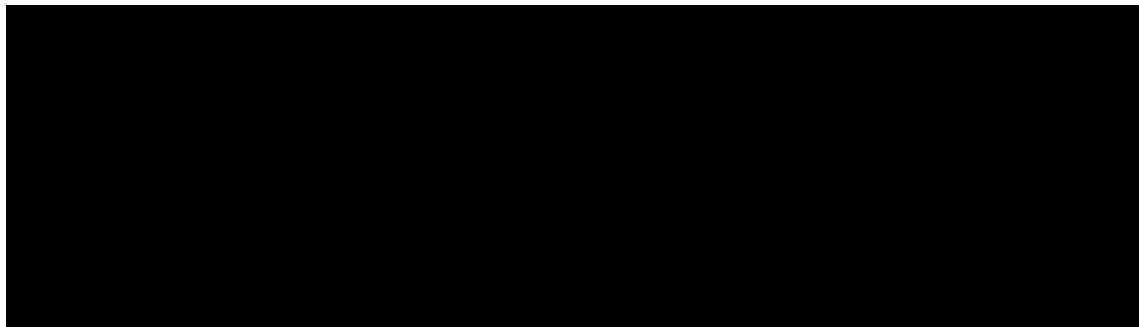
F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017



PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710204-BLK1	Blank	0.25	20					
F710204-BLK2	Blank	0.25	20					
F710204-BLK3	Blank	0.25	20					
F710204-BLK4	Blank	0.284	20					Pre-homogenization Blank for 1709615
F710204-BLK5	Blank	0.265	20					Post-homogenization Blank for 179615
F710204-BS1	LCS	0.25	20	1704421	20			
F710204-BS2	LCS	0.128	20	1705412	128			
F710204-BSD1	LCS Dup	0.25	20	1704421	20			
F710204-DUP1	Duplicate [1709614-02]	0.272	20					
F710204-MS1	Matrix Spike [1709614-01]	0.278	20	1705554	100			
F710204-MS2	Matrix Spike [1709614-02]	0.276	20	1705554	100			
F710204-MSD1	Matrix Spike Dup [1709614-01]	0.26	20	1705554	100			
F710204-MSD2	Matrix Spike Dup [1709614-02]	0.273	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl ₂ THg reductant	13-Mar-18 00:00
			1705823	5% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709614-01	OB-01_17ET001_091617_TOM_01_WB	0.277	20	QC	-	-	MS/MSD	
1709614-02	OB-01_17ET001_091617_TOM_02_WB	0.274	20	-	-	-	Sample contains enough volume for QC	
1709614-15	OB-01_17ET004_091617_TOM_15_WB	0.272	20	-	-	-		
1709614-16	OB-01_17ET004_091617_TOM_16_WB	0.268	20	-	-	-		
1709614-17	OB-01_17ET005_091617_TOM_17_WB	0.257	20	-	-	-		
1709614-18	OB-01_17ET006_091617_TOM_18_WB	0.257	20	-	-	-		
1709614-19	OB-01_17ET007_091617_TOM_19_WB	0.254	20	-	-	-		
1709614-20	OB-01_17ET008_091617_TOM_20_WB	0.254	20	-	-	-		
1709615-03	ES-13_17ET719_091817_TOM_03_WB	0.279	20	-	-	-		
1709615-04	ES-13_17ET719_091817_TOM_04_WB	0.262	20	-	-	-		
1709615-05	ES-13_17ET719_091817_TOM_05_WB	0.284	20	-	-	-		
1709615-06	ES-13_17ET719_091817_TOM_06_WB	0.272	20	-	-	-		
1709615-06RE1	ES-13_17ET719_091817_TOM_06_WB	0.272	20	-	-	-	Added 10/9/2017 by BC	Added 10/9/2017 by BC
1709615-07	ES-13_17ET722_091817_TOM_07_WB	0.256	20	-	-	-		
1709615-08	ES-13_17ET722_091817_TOM_08_WB	0.269	20	-	-	-		
1709615-09	ES-13_17ET723_091817_TOM_09_WB	0.257	20	-	-	-		
1709615-10	ES-13_17ET723_091817_TOM_10_WB	0.257	20	-	-	-		
1709615-11	ES-13_17ET717_091817_TOM_11_WB	0.255	20	-	-	-		
1709616-01	ES-FP_17ET658_091517_TOM_01_WB	0.266	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710204

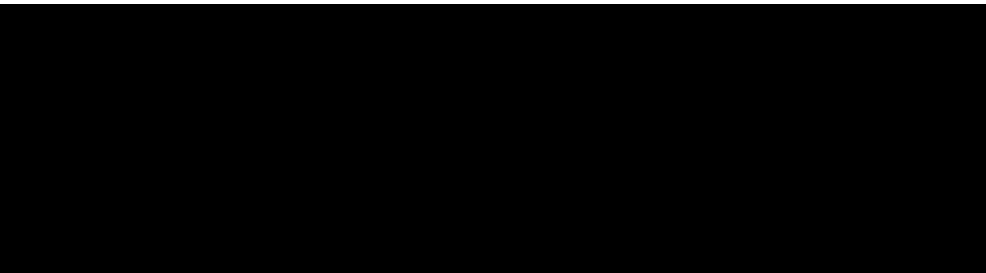
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

1709617-02	FRB-01_17SN001_091217_MUM_02_WB	0.272	20	-	-	-		
1709617-03	FRB-01_17SN001_091217_MUM_03_WB	0.269	20	-	-	-		



BC 10/6/17
2600-2

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710248-BLK1	Blank	100	101					1X source 1710143-07
F710248-BLK2	Blank	100	101					1X
F710248-BLK3	Blank	100	101					1X
F710248-BLK4	Blank	100 10	101 20					10X
F710248-BS1	LCS	100	101	1705580	100			1X
F710248-BSD1	LCS Dup	100	101		100			1X
F710248-DUP1	Duplicate 1709709-03	100	101					1X
F710248-MS1	Matrix Spike 1709709-03	100	101	1704422	25			1X
F710248-MS2	Matrix Spike 17011710142-03	100	101	1704422	25			1X
F710248-MSD1	Matrix Spike Dup 1709709-03	100	101	1704422	25			1X
F710248-MSD2	Matrix Spike Dup 1710142-03	100	101	1704422	25			1X

Standard ID(s): Description: Expiration:

1X = 50µL
5µL = 10X

1705580
1705611
1703182
1705979
1705610

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709709-01	OS-RB-20170921	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	IX
1709709-02	OS-RB-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	IX
1709709-03	NC376OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	IX
1709709-04	NC376OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	IX
1709709-05	NC377OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	IX
1709709-06	NC377OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	IX
1710042-01	October 2017 Monthly Water ICPMS Sink 1	100	101	-	-	-	Do not oven samples (CCV 90-110%, t	IX
1710142-01	Lagoons	100	101	-	-	-		IX
1710142-02	Lagoons Field Blank	100	101	-	-	-		IX
1710142-03	Clarifier	100	101	-	-	-		IX
1710142-04	Clarifier Field Blank	100	101	-	-	-		IX
1710142-05	A149	100	101	-	-	-		10X
1710142-06	A149 Blank	100	101	-	-	-		IX
1710143-01	OL-2678-01	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-02	OL-2678-02	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-03	OL-2678-03	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-04	OL-2678-04	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-05	OL-2678-05	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-06	OL-2678-06	100	101	-	-	-	Preservation Blank Created Scan all dat	IX

010701
010501
010302

Due Date: 10/9/2017

PREPARATION BENCH SHEET

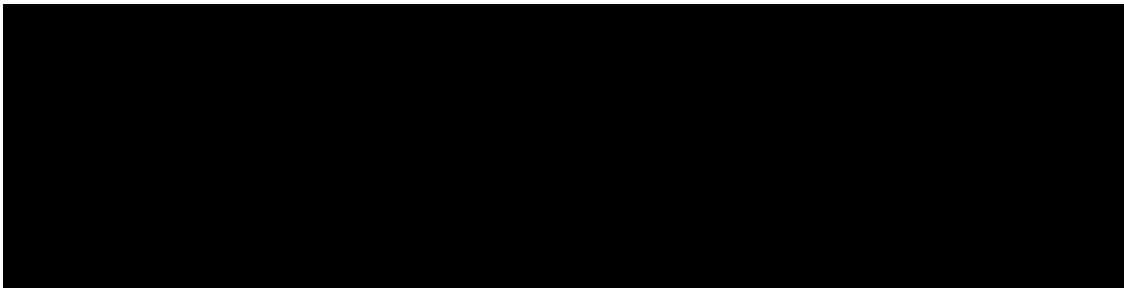
F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017



Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 9/26/17 Time Completed: 17:27

Work Orders: 1709700
1709709

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1704915

Pipette SN: J07631

Cal. Date: 9/20/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1709700-01A	3.00	3.00	Y			
1709700-02A	3.00	3.00	Y			
1709700-03A	3.00	3.00	Y			
1709700-04A	3.00	3.00	Y			
1709709-01A	3.00	3.00	Y			
1709709-02A	3.00	3.00	Y			
1709709-03A	3.00	3.00	Y			
1709709-04A	3.00	3.00	Y			
1709709-05A	3.00	3.00	Y			
1709709-06A	3.00	3.00	Y			
LM 9/26/17						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
10/5/17

Total Mercury Preservation Logbook

CSP 10/4/17

Work Orders: ~~1710142~~ 1710142
1710143, 1710146

Initial preservation and/or verification

Technician: CSP Date: 10/4/17 Time Completed: 1730

BrCl LIMS ID: 1705580

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

Pipette SN: 507631

Cal. Date: 10/4/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710143-01A	300	3.00	y			
1710143-02A	300	3.00	y			
1710143-03A	300	3.00	y			
1710143-04A	300	3.00	y			
1710143-05A	300	3.00	y			
1710143-06A	300	3.00	y			
1710143-07A	300	3.00	y			
1710142-01A	300	3.00	y			
1710142-02A	300	3.00	y			
1710142-03A	300	3.00	y			
1710142-04A	300	3.00	y			
1710142-05B	10	10	y			
1710142-06A	300	3.00	y			
1710146-01A	300	3.00	y			
1710146-02A	300	3.00	y			
1710146-03A	300	3.00	y			

CSP
10/4/17

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Review
10/5

PREPARATION BENCH SHEET

2600-2
 BCL 10/6/17

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710204-BLK1	Blank	0.25	20					20X
F710204-BLK2	Blank	0.25	20					20X
F710204-BLK3	Blank	0.25	20					20X
F710204-BLK4	Blank	0.284	20					Pre-homogenization Blank for 1709615 20X
F710204-BLK5	Blank	0.265	20					Post-homogenization Blank for 179615 20X
F710204-BS1	LCS	0.25	20	1704421	20			20X
F710204-BS2	LCS	0.128	20	1705412	128			400X
F710204-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710204-DUP1	Duplicate [1709614-02]	0.272	20					400X
F710204-MS1	Matrix Spike [1709614-01]	0.278	20	1705554	100			400X
F710204-MS2	Matrix Spike [1709614-02]	0.276	20	1705554	100			400X 400X
F710204-MSD1	Matrix Spike Dup [1709614-01]	0.26	20	1705554	100			400X
F710204-MSD2	Matrix Spike Dup [1709614-02]	0.273	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705823	5% BrCl	22-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00

400X = 125µL
 100X = 500µL
 20X = 2.5µL

1705611
 1705610
 1703182
 1705779

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709614-01	OB-01_17ET001_091617_TOM_01_WB	0.277	20	QC	-	-	MS/MSD 400	
1709614-02	OB-01_17ET001_091617_TOM_02_WB	0.274	20	-	-	-	Sample contains enough volume for QC 400X	
1709614-15	OB-01_17ET004_091617_TOM_15_WB	0.272	20	-	-	-	400X	
1709614-16	OB-01_17ET004_091617_TOM_16_WB	0.268	20	-	-	-	400X	
1709614-17	OB-01_17ET005_091617_TOM_17_WB	0.257	20	-	-	-	400X	
1709614-18	OB-01_17ET006_091617_TOM_18_WB	0.257	20	-	-	-	400X	
1709614-19	OB-01_17ET007_091617_TOM_19_WB	0.254	20	-	-	-	400X	
1709614-20	OB-01_17ET008_091617_TOM_20_WB	0.254	20	-	-	-	400X	
1709615-03	ES-13_17ET719_091817_TOM_03_WB	0.279	20	-	-	-	400X	
1709615-04	ES-13_17ET719_091817_TOM_04_WB	0.262	20	-	-	-	400X	
1709615-05	ES-13_17ET719_091817_TOM_05_WB	0.284	20	-	-	-	400X	
1709615-06	ES-13_17ET719_091817_TOM_06_WB	0.272	20	-	-	-	400X → 100X	
1709615-07	ES-13_17ET722_091817_TOM_07_WB	0.256	20	-	-	-	400X	
1709615-08	ES-13_17ET722_091817_TOM_08_WB	0.269	20	-	-	-	400X	
1709615-09	ES-13_17ET723_091817_TOM_09_WB	0.257	20	-	-	-	400X	
1709615-10	ES-13_17ET723_091817_TOM_10_WB	0.257	20	-	-	-	400X	
1709615-11	ES-13_17ET717_091817_TOM_11_WB	0.255	20	-	-	-	400X	
1709616-01	ES-FP_17ET658_091517_TOM_01_WB	0.266	20	-	-	-	400X	
1709617-02	FRB-01_17SN001_091217_MUM_02_WB	0.272	20	-	-	-	20X	

PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

1709617-03	FRB-01_17SN001_091217_MUM_03_WB	0.269	20	-	-	-	20x	
------------	---------------------------------	-------	----	---	---	---	-----	--



Technician: WPF Batch#: F710204 Date: 10/3/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19 (0.0204) Calibrated? Yes No Therm.#: 1404/801 Calibrated? Yes No
 Time in: 17:15 Actual Temp. (raw): 80.4 °C w/ CF: 80.1 °C
 Time out: 19:15 Actual Temp. (raw): Timer °C w/ CF: Timer °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705823) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: BL 10/3/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0267852 Calibration Date: 10/2/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705859 Dispenser #: 0262749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 1746
 Glass Vial # 0008124 Boiling Chip lot # 1702551 *Hotblock Position: M5

Vial #	Sample ID Number	Sample Size		Vial #	Sample ID Number	Sample Size		CRM LIMS ID	Comments
		<input type="checkbox"/> mL	<input type="checkbox"/> µg			<input type="checkbox"/> mL	<input type="checkbox"/> µg		
1	F710204 - BLK1	0.257	0.257	23	1709615 - 07	0.256		BS2	
2	F710204 - BLK2	0.260	0.260	24	1709615 - 08	0.269		BS2	BS/BS = DUBBLE LIMS 1709412
3	F710204 - BLK3	0.256	0.256	25	1709615 - 09	0.257			
4	F710204 - BS1	0.257	0.257	26	1709615 - 10	0.257			
5	F710204 - BSD1	0.254	0.254	27	1709615 - 11	0.255			MS1/MS2 1 source = 1709614 - 01
6	1709614 - 01	0.277	0.277	28	1709616 - 01	0.266			DUP1/MS2/MSD2 source = 1709614 - 02
7	F710204 - MS1	0.278	0.278	29	1709617 - 02	0.272			
8	F710204 - MSD1	0.260	0.260	30	1709617 - 03	0.269			BS/BS1 spiked with 20µl of 1704421
9	1709614 - 02	0.274	0.274	31	F710204 - BS2	0.1280			
10	F710204 - DUP1	0.272	0.272	32	F710204 - BLK4	0.284			
11	F710204 - MS2	0.276	0.276	33	F710204 - BLK5	0.265			BLK4 + 5 are Pre/Post blanks for 1709615 -
12	F710204 - MSD2	0.273	0.273	34					
13	1709614 - 15	0.272	0.272	35					
14	1709614 - 16	0.268	0.268	36					
15	1709614 - 17	0.257	0.257	37					
16	1709614 - 18	0.257	0.257	38					
17	1709614 - 19	0.254	0.254	39					
18	1709614 - 20	0.254	0.254	40					
19	1709615 - 03	0.279	0.279	41					
20	1709615 - 04	0.262	0.262	42					Pre/Post blanks for 1709616 are in batch F710207
21	1709615 - 05	0.284	0.284	43					Pre/Post blanks for in batch F710196
22	1709615 - 06	0.272	0.272	44					Pre/Post blanks for batch F710214

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J09009, 7J09010
Reviewer: DM	Dataset ID(s): THg26002-171006-1
Date: 10/9/2017	WO (s) #:
Batch #(s): F710248, F710204	

• Select the correct preparation method.

Analyte	Prep Method	Matrix
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric
<input checked="" type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation
<input type="checkbox"/> Hg0	NA	NA
<input type="checkbox"/> Inorg Hg	NA	NA

Analyst Initials: BC **Reviewer Initials:** DM

- | | | | |
|---|---|--|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | | | |
| (b) Check 5% of transcription from Instrument print-out and Excel file | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | | | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 50 ml / aliquot = Excel dilution value | | | |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? _____ | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7J09009, 7J09010
Reviewer:	0	Dataset ID(s):	THg26002-171006-1
Date:	10/9/2017	WO (s) #:	0
Batch #(s):	F710248, F710204		0

Analyst Initials BC

Reviewer Initials DM

5b. Has the B/C section data been uploaded?

YES NO N/A

QA/QC Data Checked

6. RSD CF (≤ 15%)

PASS FAIL

Comments: _____

7. The calibration curve included a minimum of 5 Standards

YES NO

Comments: _____

8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)

PASS FAIL

9. ICV and CCV % Recoveries EPA 1631E (77-123%)

PASS FAIL

Comments: _____

10. Do all calibration points pass acceptance criteria?

YES NO

Comments: _____

11. Are qualifiers consistent with the data review flowcharts?

YES NO N/A

Comments: _____

12. Explain any items on the failed data report from Element

Comments: _____

13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list)

PASS FAIL

(a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:

(b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?

YES NO

(c) Was a BrCl Blank analyzed for each preservation level?

YES NO N/A

(d) Are Preparation Blanks summarized on QC page?

YES NO

14. Filtration Blank Prepared (if yes, use FB qualifier)

YES NO

(a) Filtration Blank prep date same as associated samples' prep date

YES NO N/A

(b) Filtration Blank absolute value < PQL or <2.2xMDL for WI

YES NO N/A

15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?

PASS FAIL

Comments: _____

16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?

PASS FAIL

Comments: _____

17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)

YES NO N/A

18. Is the correct 'Source' designated for MD/MS/MSD?

YES NO

19. For digested preps: was there a spike witness signature & date on the prep bench sheet?

YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J09009, 7J09010
Reviewer: 0	Dataset ID(s): THg26002-171006-1
Date: 10/9/2017	WO (s) #: 0
Batch #(s): F710248, F710204	0

Analyst Initials BC **Reviewer Initials** DM

20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? YES NO
- Comments: _____
21. Are all samples within instrument calibration range? (or at minimum dilution size) PASS FAIL
- Comments: _____
22. Are the samples run at the correct dilution level for the method? YES NO
- Comments: _____
23. Dissolved < Total (if applicable) YES NO N/A
- Comments: _____
24. Effluent < Influent (visually confirm if needed) YES NO N/A
- Comments: _____
25. Are re-runs noted with reason? YES NO N/A
- Comments: _____
26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? YES NO N/A
- Comments: _____
27. Is the B trap <5% A Traps YES NO N/A
- Comments: _____
28. Are spiked trap recoveries 75-125% of true value? YES NO N/A
- Comments: _____
29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
- Comments: _____
30. Have re-extracts been created for non-reportable samples? YES NO N/A
31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. YES NO N/A
32. Does the data set need scanning? YES N/A
33. Does the dataset have an LOQ/LOQ or DOC? YES N/A
34. Water samples: has the preservation log been included in dataset for final volume verification? YES NO N/A
35. Water samples-is the final volume correct in the sequence? YES NO N/A
- Files located at:** \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs
36. Date of analyst IDOC/CDOC: 1/11/17, 1/27/17 IDOC/CDOC within last 12 months? YES NO
37. Date of analyst's SOP reading for method: 5/20/17 Current SOP revision read? YES NO
38. Date of LOD: 5/9/17, 4/26/17 LOD within last 3 months? YES NO
39. Date of LOQ: 5/9/17, 4/26/17 LOQ within last 3 months? YES NO

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

Reviewed 11/02/2017
Elizabeth Penta
Wood. PLC

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709627

PO#

C012505850

October 21, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709627

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October 21, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 15:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRB-01_17HC001_091317_BLM_01_WB	1709627-01	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_02_WB	1709627-02	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_03_WB	1709627-03	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_04_WB	1709627-04	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_05_WB	1709627-05	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_06_WB	1709627-06	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_07_WB	1709627-07	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_08_WB	1709627-08	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_09_WB	1709627-09	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_10_WB	1709627-10	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_11_WB	1709627-11	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_12_WB	1709627-12	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_13_WB	1709627-13	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_14_WB	1709627-14	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_15_WB	1709627-15	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_16_WB	1709627-16	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_17_WB	1709627-17	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_18_WB	1709627-18	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_19_WB	1709627-19	Tissue	13-Sep-17 14:30	22-Sep-17 10:25
FRB-01_17HC001_091317_BLM_20_WB	1709627-20	Tissue	13-Sep-17 14:30	22-Sep-17 10:25

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
21-Oct-17 15:31

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM. The samples were received intact, on-ice within two sealed coolers at -27.1 and -21.6 degrees Celsius.

Client requested Lipids Analysis by NOAA1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches; F710262 and F710289. Sample 1709627-01 was used as the QC source in batch F710262. Sample 1709627-19 was used as the QC source in batch F710289. These samples were analyzed in two sequences; 7J20014 and 7J19011.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery

Eurofins Frontier Global Sciences, Inc.



The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 15:31

and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

Client: AMSC Foster Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/23/17 Labeled By: CSF

Project: _____

Received By: LM Label Verified By: BW

of Coolers Received: 2

Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice

Coolant Required: Y/N Temp Blank Used: for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>1709627</u>	CF: <u>16.1 °C</u>	Date/time: <u>9/22/17 10:25</u>	By: <u>LM</u>
Cooler 1: <u>-27.22°C</u>	w/ CF: <u>-27.12°C</u>	Cooler 4: _____ °C	w/ CF: _____ °C
Cooler 2: <u>-21.73°C</u>	w/ CF: <u>-21.63°C</u>	Cooler 5: _____ °C	w/ CF: _____ °C
Cooler 3: _____ °C	w/ CF: _____ °C	Cooler 6: _____ °C	w/ CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	Y	
Preservation type:	Y	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

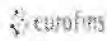
Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4846 Cooler 2: 7878 1037 1884

1709627



1709627



Environmental Analysis Request/Chain of Custody

Client: Ameo Foster Wheeler / 511 Congress St. Suite 201 Portland, ME 04101		Project Name: URFC Penobscot		Project Manager: Reo Pendleton		Sample: JB		Phone #: _____		State where samples were collected: ME		For Lab Use Only	
P.O. # 3818185052.04A.CSE		P.O. # CC012309850		PWSID # _____		Quote # _____		Matrix		Analyses Requested		SF # _____	
Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Issue <input type="checkbox"/>		Possible NRETS <input type="checkbox"/>		TDSAC <input type="checkbox"/>		Total # of Containers		Preservation Codes		SCR # _____		Preservation Codes	
Water <input type="checkbox"/>		Other: _____		HG 163121, per 1991a Zolag								A-Hg V-Hg Pb-Cd Cu-Zn	
Sample Identification		Collection		Grab		Composite		Remarks					
		Date		Time				use volume for ME / MSD					
1	FRB-01_17HC001_091317_BLM_01_WB	091317	14:00	X		X	1	X					
2	FRB-01_17HC001_091317_BLM_02_WB	091317	13:50	X		X	1	X					
3	FRB-01_17HC001_091317_BLM_03_WB	091317	13:40	X		X	1	X					
4	FRB-01_17HC001_091317_BLM_04_WB	091317	14:00	X		X	1	X					
5	FRB-01_17HC001_091317_BLM_05_WB	091317	13:45	X		X	1	X					
6	FRB-01_17HC001_091317_BLM_06_WB	091317	14:30	X		X	1	X					
7	FRB-01_17HC001_091317_BLM_07_WB	091317	14:25	X		X	1	X					
8	FRB-01_17HC001_091317_BLM_08_WB	091317	14:15	X		X	1	X					
9	FRB-01_17HC001_091317_BLM_09_WB	091317	14:20	X		X	1	X					
10	FRB-01_17HC001_091317_BLM_10_WB	091317	14:30	X		X	1	X					
11	FRB-01_17HC001_091317_BLM_11_WB	091317	14:30	X		X	1	X					
12	FRB-01_17HC001_091317_BLM_12_WB	091317	14:40	X		X	1	X					
13	FRB-01_17HC001_091317_BLM_13_WB	091317	14:50	X		X	1	X					
14	FRB-01_17HC001_091317_BLM_14_WB	091317	14:50	X		X	1	X					
15	FRB-01_17HC001_091317_BLM_15_WB	091317	14:50	X		X	1	X					
16	FRB-01_17HC001_091317_BLM_16_WB	091317	15:00	X		X	1	X					
17	FRB-01_17HC001_091317_BLM_17_WB	091317	15:10	X		X	1	X					
18	FRB-01_17HC001_091317_BLM_18_WB	091317	15:10	X		X	1	X					
19	FRB-01_17HC001_091317_BLM_19_WB	091317	15:20	X		X	1	X					
20	FRB-01_17HC001_091317_BLM_20_WB	091317	14:30	X		X	1	X					
Turnaround Time Requested (TAT) (please check):		Standard <input checked="" type="checkbox"/>		Rush <input type="checkbox"/>		Relinquished by: <i>[Signature]</i>		Date: 9/8/2017		Time: 1630		Received by:	
(Rush TAT is subject to laboratory approval and surcharges)						Relinquished by:		Date:		Time:		Received by:	
Notes:						Relinquished by:		Date:		Time:		Received by:	
FedEx # <u>2103 4444 4848</u> # of Coolers <u>2</u> Sample disposal - Hold Equipment Blankets 1-4 until 30 days after delivery of Report Report and EDD to: denise.king@ameow.com / 978-997-6613						Relinquished by:		Date:		Time:		Received by:	
Data Package Options (please check if required)		High <input type="checkbox"/>		Standard <input checked="" type="checkbox"/>		Relinquished by Commercial Carrier		U.S. _____		Temp: _____		Other: _____	
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		If yes, format: _____										Temperature upon receipt _____ °C	



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 15:31
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FRB-01_17HC001_091317_BLM_01_WB
1709627-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	5.52	0.077	0.685	ng/g	20	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	
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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 15:31

FRB-01_17HC001_091317_BLM_02_WB
1709627-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	6.18	0.086	0.766	ng/g	20	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 15:31

FRB-01_17HC001_091317_BLM_03_WB
1709627-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	11.7	0.439	3.92	ng/g	100	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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Amy Goodall, Project Manager



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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 15:31

FRB-01_17HC001_091317_BLM_04_WB
1709627-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	8.51	0.406	3.62	ng/g	100	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	



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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
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FRB-01_17HC001_091317_BLM_05_WB
1709627-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	7.09	0.082	0.733	ng/g	20	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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Amy Goodall, Project Manager



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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
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FRB-01_17HC001_091317_BLM_06_WB
1709627-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	5.46	0.078	0.699	ng/g	20	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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Amy Goodall, Project Manager



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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 15:31

FRB-01_17HC001_091317_BLM_07_WB
1709627-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	11.9	0.446	3.98	ng/g	100	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 15:31

**FRB-01_17HC001_091317_BLM_08_WB
1709627-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	13.0	0.412	3.68	ng/g	100	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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Reported:
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FRB-01_17HC001_091317_BLM_09_WB
1709627-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	7.19	0.089	0.794	ng/g	20	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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21-Oct-17 15:31

FRB-01_17HC001_091317_BLM_10_WB
1709627-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	7.74	0.085	0.755	ng/g	20	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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Project Manager: Denise King

Reported:
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**FRB-01_17HC001_091317_BLM_11_WB
1709627-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	9.20	0.079	0.709	ng/g	20	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	



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Reported:
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FRB-01_17HC001_091317_BLM_12_WB
1709627-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	7.44	0.087	0.775	ng/g	20	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 15:31

FRB-01_17HC001_091317_BLM_13_WB
1709627-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	10.5	0.086	0.769	ng/g	20	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 15:31

FRB-01_17HC001_091317_BLM_14_WB
1709627-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	6.45	0.083	0.738	ng/g	20	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	



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Reported:
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FRB-01_17HC001_091317_BLM_15_WB
1709627-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	10.3	0.083	0.738	ng/g	20	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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Project Manager: Denise King

Reported:
21-Oct-17 15:31

FRB-01_17HC001_091317_BLM_16_WB
1709627-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	7.17	0.079	0.707	ng/g	20	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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Amy Goodall, Project Manager



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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 15:31

FRB-01_17HC001_091317_BLM_17_WB
1709627-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	8.36	0.087	0.775	ng/g	20	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 15:31
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**FRB-01_17HC001_091317_BLM_18_WB
1709627-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	6.85	0.086	0.772	ng/g	20	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	



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Project Manager: Denise King

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**FRB-01_17HC001_091317_BLM_19_WB
1709627-19**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	7.68	0.087	0.778	ng/g	20	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	



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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 15:31

FRB-01_17HC001_091317_BLM_20_WB
1709627-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	7.02	0.089	0.791	ng/g	20	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J19011 - F710289											
Cal Standard (7J19011-CAL1)					Prepared & Analyzed: 18-Oct-17						
Mercury	0.518	-		ng/L	0.50100		103				
Cal Standard (7J19011-CAL2)					Prepared & Analyzed: 18-Oct-17						
Mercury	1.028	-		ng/L	1.0020		103				
Cal Standard (7J19011-CAL3)					Prepared & Analyzed: 18-Oct-17						
Mercury	4.997	-		ng/L	5.0100		99.7				
Cal Standard (7J19011-CAL4)					Prepared & Analyzed: 18-Oct-17						
Mercury	19.53	-		ng/L	20.040		97.5				
Cal Standard (7J19011-CAL5)					Prepared & Analyzed: 18-Oct-17						
Mercury	38.34	-		ng/L	40.080		95.7				
Calibration Blank (7J19011-CCB1)					Prepared & Analyzed: 18-Oct-17						
Mercury	0.040	-		ng/L							
Calibration Blank (7J19011-CCB2)					Prepared & Analyzed: 18-Oct-17						
Mercury	0.118	-		ng/L							
Calibration Blank (7J19011-CCB3)					Prepared & Analyzed: 18-Oct-17						
Mercury	0.104	-		ng/L							
Calibration Blank (7J19011-CCB4)					Prepared & Analyzed: 18-Oct-17						
Mercury	0.047	-		ng/L							
Calibration Blank (7J19011-CCB5)					Prepared & Analyzed: 18-Oct-17						
Mercury	0.072	-		ng/L							

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Project Manager: Denise King

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21-Oct-17 15:31

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J19011 - F710289											
Calibration Blank (7J19011-CCB6)											
Prepared & Analyzed: 18-Oct-17											
Mercury	0.114	-		ng/L							
Calibration Blank (7J19011-CCB7)											
Prepared & Analyzed: 18-Oct-17											
Mercury	0.177	-		ng/L							
Calibration Check (7J19011-CCV1)											
Prepared & Analyzed: 18-Oct-17											
Mercury	4.802	-		ng/L	5.0000		96.0	77-123			
Calibration Check (7J19011-CCV2)											
Prepared & Analyzed: 18-Oct-17											
Mercury	4.917	-		ng/L	5.0000		98.3	77-123			
Calibration Check (7J19011-CCV3)											
Prepared & Analyzed: 18-Oct-17											
Mercury	5.109	-		ng/L	5.0000		102	77-123			
Calibration Check (7J19011-CCV4)											
Prepared & Analyzed: 18-Oct-17											
Mercury	4.926	-		ng/L	5.0000		98.5	77-123			
Calibration Check (7J19011-CCV5)											
Prepared & Analyzed: 18-Oct-17											
Mercury	4.979	-		ng/L	5.0000		99.6	77-123			
Calibration Check (7J19011-CCV6)											
Prepared & Analyzed: 18-Oct-17											
Mercury	4.967	-		ng/L	5.0000		99.3	77-123			
Calibration Check (7J19011-CCV7)											
Prepared & Analyzed: 18-Oct-17											
Mercury	5.194	-		ng/L	5.0000		104	77-123			
Instrument Blank (7J19011-IBL1)											
Prepared & Analyzed: 18-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J19011 - F710289

Instrument Blank (7J19011-IBL2)				Prepared & Analyzed: 18-Oct-17							
Mercury	ND	0.004	0.040	ng/L							U

Instrument Blank (7J19011-IBL3)				Prepared & Analyzed: 18-Oct-17							
Mercury	ND	0.004	0.040	ng/L							U

Initial Cal Check (7J19011-ICV1)				Prepared & Analyzed: 18-Oct-17							
Mercury	5.088	-		ng/L	5.0000		102	79-121			

Batch 7J20014 - F710387

Cal Standard (7J20014-CAL1)				Prepared & Analyzed: 19-Oct-17							
Mercury	0.528	-		ng/L	0.50100		105				

Cal Standard (7J20014-CAL2)				Prepared & Analyzed: 19-Oct-17							
Mercury	0.998	-		ng/L	1.0020		99.6				

Cal Standard (7J20014-CAL3)				Prepared & Analyzed: 19-Oct-17							
Mercury	5.090	-		ng/L	5.0100		102				

Cal Standard (7J20014-CAL4)				Prepared & Analyzed: 19-Oct-17							
Mercury	19.16	-		ng/L	20.040		95.6				

Cal Standard (7J20014-CAL5)				Prepared & Analyzed: 19-Oct-17							
Mercury	38.81	-		ng/L	40.080		96.8				

Calibration Blank (7J20014-CCB1)				Prepared & Analyzed: 19-Oct-17							
Mercury	0.100	-		ng/L							

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 15:31

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J20014 - F710387

Calibration Blank (7J20014-CCB2)												Prepared & Analyzed: 19-Oct-17
Mercury	0.086	-		ng/L								
Calibration Blank (7J20014-CCB3)												Prepared & Analyzed: 19-Oct-17
Mercury	0.105	-		ng/L								
Calibration Blank (7J20014-CCB4)												Prepared & Analyzed: 19-Oct-17
Mercury	0.102	-		ng/L								
Calibration Blank (7J20014-CCB5)												Prepared & Analyzed: 19-Oct-17
Mercury	0.099	-		ng/L								
Calibration Blank (7J20014-CCB6)												Prepared & Analyzed: 19-Oct-17
Mercury	0.063	-		ng/L								
Calibration Blank (7J20014-CCB7)												Prepared & Analyzed: 19-Oct-17
Mercury	0.081	-		ng/L								
Calibration Blank (7J20014-CCB8)												Prepared & Analyzed: 19-Oct-17
Mercury	0.101	-		ng/L								
Calibration Check (7J20014-CCV1)												Prepared & Analyzed: 19-Oct-17
Mercury	4.827	-		ng/L	5.0000		96.5	77-123				
Calibration Check (7J20014-CCV2)												Prepared & Analyzed: 19-Oct-17
Mercury	4.636	-		ng/L	5.0000		92.7	77-123				
Calibration Check (7J20014-CCV3)												Prepared & Analyzed: 19-Oct-17
Mercury	4.853	-		ng/L	5.0000		97.1	77-123				

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 15:31
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J20014 - F710387											
Calibration Check (7J20014-CCV4)					Prepared & Analyzed: 19-Oct-17						
Mercury	4.851	-		ng/L	5.0000		97.0	77-123			
Calibration Check (7J20014-CCV5)					Prepared & Analyzed: 19-Oct-17						
Mercury	4.985	-		ng/L	5.0000		99.7	77-123			
Calibration Check (7J20014-CCV6)					Prepared & Analyzed: 19-Oct-17						
Mercury	4.674	-		ng/L	5.0000		93.5	77-123			
Calibration Check (7J20014-CCV7)					Prepared & Analyzed: 19-Oct-17						
Mercury	4.695	-		ng/L	5.0000		93.9	77-123			
Calibration Check (7J20014-CCV8)					Prepared & Analyzed: 19-Oct-17						
Mercury	4.792	-		ng/L	5.0000		95.8	77-123			
Instrument Blank (7J20014-IBL1)					Prepared & Analyzed: 19-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J20014-IBL2)					Prepared & Analyzed: 19-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J20014-IBL3)					Prepared & Analyzed: 19-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7J20014-ICV1)					Prepared & Analyzed: 19-Oct-17						
Mercury	5.021	-		ng/L	5.0000		100	79-121			
Batch F710262 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710262-BLK1)					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	0.322	0.090	0.800	ng/g							J

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 15:31
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710262 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710262-BLK2) Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	0.148	0.090	0.800	ng/g							J
Blank (F710262-BLK3) Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	0.125	0.090	0.800	ng/g							J
LCS (F710262-BS1) Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	7.914	0.090	0.800	ng/g	8.0160		98.7	75-125			
LCS (F710262-BS2) Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	316.0	3.51	31.4	ng/g	373.70		84.6	75-125			
LCS Dup (F710262-BSD1) Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	7.697	0.090	0.800	ng/g	8.0160		96.0	75-125	2.78	24	
Duplicate (F710262-DUP1) Source: 1709626-19 Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	48.16	0.385	3.44	ng/g		47.75			0.853	24	
Matrix Spike (F710262-MS1) Source: 1709626-19 Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	364.5	1.61	14.3	ng/g	358.42	47.75	88.4	71-125			
Matrix Spike (F710262-MS2) Source: 1709627-01RE1 Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	322.4	1.60	14.3	ng/g	357.14	5.520	88.7	71-125			
Matrix Spike Dup (F710262-MSD1) Source: 1709626-19 Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	342.0	1.59	14.2	ng/g	355.87	47.75	82.7	71-125	6.63	24	
Matrix Spike Dup (F710262-MSD2) Source: 1709627-01RE1 Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	351.1	1.75	15.6	ng/g	390.62	5.520	88.5	71-125	0.286	24	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 15:31
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710289 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710289-BLK1) Prepared: 10-Oct-17 Analyzed: 18-Oct-17											
Mercury	0.165	0.090	0.800	ng/g							J
Blank (F710289-BLK2) Prepared: 10-Oct-17 Analyzed: 18-Oct-17											
Mercury	ND	0.090	0.800	ng/g							U
Blank (F710289-BLK3) Prepared: 10-Oct-17 Analyzed: 18-Oct-17											
Mercury	ND	0.090	0.800	ng/g							U
Blank (F710289-BLK4) Prepared: 10-Oct-17 Analyzed: 18-Oct-17											
Mercury	ND	0.079	0.702	ng/g							F-03, U
Blank (F710289-BLK5) Prepared: 10-Oct-17 Analyzed: 18-Oct-17											
Mercury	ND	0.086	0.769	ng/g							F-03, U
Blank (F710289-BLK6) Prepared: 10-Oct-17 Analyzed: 18-Oct-17											
Mercury	ND	0.080	0.712	ng/g							F-03, U
Blank (F710289-BLK7) Prepared: 10-Oct-17 Analyzed: 18-Oct-17											
Mercury	ND	0.078	0.694	ng/g							F-03, U
LCS (F710289-BS1) Prepared: 10-Oct-17 Analyzed: 18-Oct-17											
Mercury	7.966	0.090	0.800	ng/g	8.0160		99.4	75-125			
LCS (F710289-BS2) Prepared: 10-Oct-17 Analyzed: 18-Oct-17											
Mercury	317.1	3.49	31.1	ng/g	373.70		84.9	75-125			
LCS Dup (F710289-BSD1) Prepared: 10-Oct-17 Analyzed: 18-Oct-17											
Mercury	8.006	0.090	0.800	ng/g	8.0160		99.9	75-125	0.498	24	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 15:31

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710289 - EFGS-011 Nitric/Sulfuric Hg Digestion

Duplicate (F710289-DUP1)		Source: 1709627-19RE1		Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	7.756	0.083	0.738	ng/g		7.683			0.934	24	
Matrix Spike (F710289-MS1)		Source: 1709627-19RE1		Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	364.4	1.74	15.6	ng/g	389.11	7.683	91.7	71-125			
Matrix Spike (F710289-MS2)		Source: 1709628-01		Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	417.8	1.63	14.5	ng/g	363.64	75.03	94.3	71-125			
Matrix Spike Dup (F710289-MSD1)		Source: 1709627-19RE1		Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	338.6	1.72	15.3	ng/g	383.14	7.683	86.4	71-125	5.95	24	
Matrix Spike Dup (F710289-MSD2)		Source: 1709628-01		Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	396.1	1.65	14.7	ng/g	367.65	75.03	87.3	71-125	7.63	24	

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
21-Oct-17 15:31**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26002-171019-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 19, 2017

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7J20014, 7J20015

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	108.32 units	216.63	101.65 units	203.31	105.5 %Rec
SEQ-CAL2	1	1.00 ng/L	199.04 units	199.04	192.38 units	192.38	99.8 %Rec
SEQ-CAL3	1	5.00 ng/L	987.37 units	197.47	980.71 units	196.14	101.8 %Rec
SEQ-CAL4	1	20.00 ng/L	3699.28 units	184.96	3692.61 units	184.63	95.8 %Rec
SEQ-CAL5	1	40.00 ng/L	7484.41 units	187.11	7477.75 units	186.94	97.0 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 192.68 +/- 7.46 3.9% RSD 197.04

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.66 units	±1.69	0.03 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	2.438 ng/L	±1.107
BLK	2	3	2.016 ng/L	±0.780
BLK	3	3	2.479 ng/L	±1.348
BLK	4	2	4.891 ng/L	±0.561
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: PC 10/20/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	DM2	CAL	SEQ-IBL1	1	10/19/2017 10:28:52	87678-1.RAW	10:28:52 AM	5.84	✓		-0.8	-0.004	-0.004	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	10/19/2017 10:33:00	87679-1.RAW	10:33:00 AM	8.61	✓		1.9	0.010	0.010	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	10/19/2017 10:37:09	87680-1.RAW	10:37:09 AM	5.54	✓		-1.1	-0.006	-0.006	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	10/19/2017 10:41:17	87681-1.RAW	10:41:17 AM	108.32	✓		101.7	0.528	0.528	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	10/19/2017 10:45:26	87682-1.RAW	10:45:26 AM	199.04	✓		192.4	0.998	0.998	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	10/19/2017 10:49:34	87683-1.RAW	10:49:34 AM	987.37	✓		980.7	5.090	5.090	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	10/19/2017 10:53:43	87684-1.RAW	10:53:43 AM	3699.28	✓		3692.6	19.165	19.165	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	10/19/2017 10:57:51	87685-1.RAW	10:57:51 AM	7484.41	✓		7477.8	38.809	38.809	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	10/19/2017 11:01:59	87686-1.RAW	11:01:59 AM	974.06	✓		967.4	5.021	5.021	ng/L	
Hg2600-2	DM2	BLK	F710387-BLK1	20	10/19/2017 11:06:08	87687-1.RAW	11:06:08 AM	42.35	✓	1	35.7	0.185	3.704	ng/L	
Hg2600-2	DM2	BLK	F710387-BLK2	20	10/19/2017 11:10:16	87688-1.RAW	11:10:16 AM	22.57	✓	1	15.9	0.083	1.651	ng/L	
Hg2600-2	DM2	BLK	F710387-BLK3	20	10/19/2017 11:14:25	87689-1.RAW	11:14:25 AM	25.54	✓	1	18.9	0.098	1.960	ng/L	
Hg2600-2	DM2	SAM	F710387-BS1	20	10/19/2017 11:18:33	87690-1.RAW	11:18:33 AM	951.71	✓	1	945.1	4.783	95.657	ng/L	
Hg2600-2	DM2	SAM	F710387-BSD1	20	10/19/2017 11:22:42	87691-1.RAW	11:22:42 AM	889.77	✓	1	883.1	4.461	89.228	ng/L	
Hg2600-2	DM2	SAM	F710387-BS2	400	10/19/2017 11:26:50	87692-1.RAW	11:26:50 AM	935.60	✓	1	928.9	4.815	1926.017	ng/L	
Hg2600-2	DM2	SAM	1709628-15	100	10/19/2017 11:30:58	87693-1.RAW	11:30:58 AM	1918.86	✓	1	1912.2	9.900	989.984	ng/L	
Hg2600-2	DM2	SAM	1709628-16RE1	100	10/19/2017 11:35:07	87694-1.RAW	11:35:07 AM	4854.87	✓	1	4848.0	25.137	2513.664	ng/L	
Hg2600-2	DM2	SAM	1709628-18RE1	100	10/19/2017 11:39:15	87695-1.RAW	11:39:15 AM	2010.02	✓	1	2003.4	10.373	1037.300	ng/L	
Hg2600-2	DM2	SAM	F710387-DUP1	100	10/19/2017 11:43:24	87696-1.RAW	11:43:24 AM	2408.48	✓	1	2401.8	12.441	1244.098	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	10/19/2017 11:47:32	87697-1.RAW	11:47:32 AM	936.66	✓		930.0	4.827	4.827	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	10/19/2017 11:51:40	87698-1.RAW	11:51:40 AM	25.89	✓		19.2	0.100	0.100	ng/L	
Hg2600-2	DM2	SAM	F710387-MS1	400	10/19/2017 11:55:49	87699-1.RAW	11:55:49 AM	2631.12	✓	1	2624.5	13.615	5445.903	ng/L	
Hg2600-2	DM2	SAM	F710387-MSD1	400	10/19/2017 11:59:57	87700-1.RAW	11:59:57 AM	2528.17	✓	1	2521.5	13.080	5232.180	ng/L	
Hg2600-2	DM2	BLK	F710260-BLK1	20	10/19/2017 12:04:06	87701-1.RAW	12:04:06 PM	33.99	✓	2	27.3	0.142	2.837	ng/L	
Hg2600-2	DM2	BLK	F710260-BLK2	20	10/19/2017 12:08:14	87702-1.RAW	12:08:14 PM	25.22	✓	2	18.6	0.096	1.926	ng/L	
Hg2600-2	DM2	BLK	F710260-BLK3	20	10/19/2017 12:12:23	87703-1.RAW	12:12:23 PM	19.04	✓	2	12.4	0.064	1.285	ng/L	
Hg2600-2	DM2	SAM	F710260-BS1	20	10/19/2017 12:16:31	87704-1.RAW	12:16:31 PM	986.77	✓	2	980.1	4.986	99.719	ng/L	
Hg2600-2	DM2	SAM	F710260-BSD1	20	10/19/2017 12:20:39	87705-1.RAW	12:20:39 PM	905.24	✓	2	898.6	4.563	91.255	ng/L	
Hg2600-2	DM2	SAM	F710260-BS2	400	10/19/2017 12:24:48	87706-1.RAW	12:24:48 PM	947.36	✓	2	940.7	4.877	1950.851	ng/L	
Hg2600-2	DM2	SAM	1709624-01	100	10/19/2017 12:28:56	87707-1.RAW	12:28:56 PM	1754.42	✓	2	1747.8	9.051	905.064	ng/L	
Hg2600-2	DM2	SAM	1709624-02	100	10/19/2017 12:33:05	87708-1.RAW	12:33:05 PM	1573.28	✓	2	1566.6	8.111	811.056	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	10/19/2017 12:37:13	87709-1.RAW	12:37:13 PM	899.88	✓		893.2	4.636	4.636	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	10/19/2017 12:41:21	87710-1.RAW	12:41:21 PM	23.19	✓		16.5	0.086	0.086	ng/L	
Hg2600-2	DM2	SAM	1709624-03	100	10/19/2017 12:45:30	87711-1.RAW	12:45:30 PM	2029.22	✓	2	2022.6	10.477	1047.686	ng/L	
Hg2600-2	DM2	SAM	1709624-04	100	10/19/2017 12:49:38	87712-1.RAW	12:49:38 PM	2362.39	✓	2	2355.7	12.206	1220.599	ng/L	
Hg2600-2	DM2	SAM	1709624-05	100	10/19/2017 12:53:47	87713-1.RAW	12:53:47 PM	2104.16	✓	2	2097.5	10.866	1086.578	ng/L	
Hg2600-2	DM2	SAM	1709626-04	100	10/19/2017 12:57:55	87714-1.RAW	12:57:55 PM	1985.84	✓	2	1979.2	10.252	1025.172	ng/L	
Hg2600-2	DM2	SAM	1709626-05	100	10/19/2017 13:02:04	87715-1.RAW	1:02:04 PM	1251.30	✓	2	1244.6	6.439	643.949	ng/L	
Hg2600-2	DM2	SAM	1709626-06	100	10/19/2017 13:06:12	87716-1.RAW	1:06:12 PM	996.66	✓	2	990.0	5.118	511.790	ng/L	
Hg2600-2	DM2	SAM	1709626-07	100	10/19/2017 13:10:20	87717-1.RAW	1:10:20 PM	1421.52	✓	2	1414.9	7.323	732.290	ng/L	
Hg2600-2	DM2	SAM	1709626-08	100	10/19/2017 13:14:29	87718-1.RAW	1:14:29 PM	1105.71	✓	2	1099.1	5.684	568.388	ng/L	
Hg2600-2	DM2	SAM	1709626-09	100	10/19/2017 13:18:38	87719-1.RAW	1:18:38 PM	988.88	✓	2	982.2	5.078	507.754	ng/L	
Hg2600-2	DM2	SAM	1709626-10	100	10/19/2017 13:22:47	87720-1.RAW	1:22:47 PM	1286.70	✓	2	1280.0	6.623	662.318	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	10/19/2017 13:26:55	87721-1.RAW	1:26:55 PM	941.64	✓		935.0	4.853	4.853	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	10/19/2017 13:31:04	87722-1.RAW	1:31:04 PM	26.99	✓		20.3	0.105	0.105	ng/L	
Hg2600-2	DM2	SAM	1709626-18	100	10/19/2017 13:35:12	87723-1.RAW	1:35:12 PM	1239.86	✓	2	1233.2	6.380	638.009	ng/L	
Hg2600-2	DM2	SAM	1709626-11	100	10/19/2017 13:39:21	87724-1.RAW	1:39:21 PM	1644.71	✓	2	1638.0	8.481	848.127	ng/L	
Hg2600-2	DM2	SAM	1709626-12	100	10/19/2017 13:43:29	87725-1.RAW	1:43:29 PM	1117.03	✓	2	1110.4	5.743	574.261	ng/L	
Hg2600-2	DM2	SAM	1709626-13	100	10/19/2017 13:47:38	87726-1.RAW	1:47:38 PM	1319.84	✓	2	1313.2	6.795	679.519	ng/L	
Hg2600-2	DM2	SAM	1709626-14	100	10/19/2017 13:51:46	87727-1.RAW	1:51:46 PM	1310.31	✓	2	1303.6	6.746	674.574	ng/L	
Hg2600-2	DM2	SAM	1709626-15	100	10/19/2017 13:55:54	87728-1.RAW	1:55:54 PM	1152.90	✓	2	1146.2	5.929	592.876	ng/L	
Hg2600-2	DM2	SAM	1709626-16	100	10/19/2017 14:00:03	87729-1.RAW	2:00:03 PM	1341.99	✓	2	1335.3	6.910	691.015	ng/L	
Hg2600-2	DM2	SAM	1709626-17	100	10/19/2017 14:04:11	87730-1.RAW	2:04:11 PM	1231.63	✓	2	1225.0	6.337	633.739	ng/L	
Hg2600-2	DM2	SAM	F710260-MS1	400	10/19/2017 14:08:20	87731-1.RAW	2:08:20 PM	2261.16	✓	2	2254.5	11.696	4678.294	ng/L	
Hg2600-2	DM2	SAM	F710260-MSD1	400	10/19/2017 14:12:28	87732-1.RAW	2:12:28 PM	2401.51	✓	2	2394.8	12.424	4969.648	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	10/19/2017 14:16:37	87733-1.RAW	2:16:37 PM	941.42	✓		934.8	4.851	4.851	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	10/19/2017 14:20:45	87734-1.RAW	2:20:45 PM	26.33	✓		19.7	0.102	0.102	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	DM2	SAM	F710260-DUP1	100	10/19/2017 14:24:54	87735-1.RAW	2:24:54 PM	1344.06	2		1337.4	6.921	692.088	ng/L	
Hg2600-2	DM2	SAM	F710260-MS2	400	10/19/2017 14:29:02	87736-1.RAW	2:29:02 PM	2537.35	2		2530.7	13.129	5251.656	ng/L	
Hg2600-2	DM2	SAM	F710260-MSD2	400	10/19/2017 14:33:10	87737-1.RAW	2:33:10 PM	2586.10	2		2579.4	13.382	5352.865	ng/L	
Hg2600-2	DM2	BLK	F710262-BLK1	20	10/19/2017 14:37:19	87738-1.RAW	2:37:19 PM	45.45	3		38.8	0.201	4.026	ng/L	
Hg2600-2	DM2	BLK	F710262-BLK2	20	10/19/2017 14:41:27	87739-1.RAW	2:41:27 PM	24.51	3		17.8	0.093	1.853	ng/L	
Hg2600-2	DM2	BLK	F710262-BLK3	20	10/19/2017 14:45:36	87740-1.RAW	2:45:36 PM	21.66	3		15.0	0.078	1.557	ng/L	
Hg2600-2	DM2	SAM	F710262-BS1	20	10/19/2017 14:49:44	87741-1.RAW	2:49:44 PM	983.55	3		976.9	4.946	98.922	ng/L	
Hg2600-2	DM2	SAM	F710262-BSD1	20	10/19/2017 14:53:53	87742-1.RAW	2:53:53 PM	957.43	3		950.8	4.811	96.210	ng/L	
Hg2600-2	DM2	SAM	F710262-BS2	400	10/19/2017 14:58:01	87743-1.RAW	2:58:01 PM	978.38	3		971.7	5.037	2014.789	ng/L	
Hg2600-2	DM2	SAM	1709826-19	100	10/19/2017 15:02:10	87744-1.RAW	3:02:10 PM	1304.16	3		1297.5	6.709	670.917	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	10/19/2017 15:06:18	87745-1.RAW	3:06:18 PM	967.105915			960.4	4.985	4.985	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	10/19/2017 15:10:26	87746-1.RAW	3:10:26 PM	25.77			19.1	0.099	0.099	ng/L	
Hg2600-2	DM2	SAM	1709626-20	100	10/19/2017 15:14:35	87747-1.RAW	3:14:35 PM	1259.39	3		1252.7	6.477	647.685	ng/L	
Hg2600-2	DM2	SAM	1709627-01	100	10/19/2017 15:18:43	87748-1.RAW	3:18:43 PM	177.83	3		171.2	0.864	86.354	ng/L	
Hg2600-2	DM2	SAM	1709627-02	100	10/19/2017 15:22:52	87749-1.RAW	3:22:52 PM	187.39	3		180.7	0.913	91.319	ng/L	
Hg2600-2	DM2	SAM	1709627-03	100	10/19/2017 15:27:00	87750-1.RAW	3:27:00 PM	298.80	3		292.1	1.491	149.137	ng/L	
Hg2600-2	DM2	SAM	1709627-04	100	10/19/2017 15:31:09	87751-1.RAW	3:31:09 PM	237.81	3		231.2	1.175	117.488	ng/L	
Hg2600-2	DM2	SAM	1709627-05	100	10/19/2017 15:35:17	87752-1.RAW	3:35:17 PM	198.98	3		192.3	0.973	97.332	ng/L	
Hg2600-2	DM2	SAM	1709627-06	100	10/19/2017 15:39:26	87753-1.RAW	3:39:26 PM	173.58	3		166.9	0.842	84.151	ng/L	
Hg2600-2	DM2	SAM	1709627-07	100	10/19/2017 15:43:34	87754-1.RAW	3:43:34 PM	300.36	3		293.7	1.500	149.950	ng/L	
Hg2600-2	DM2	SAM	1709627-08	100	10/19/2017 15:47:42	87755-1.RAW	3:47:42 PM	351.21	3		344.5	1.763	176.338	ng/L	
Hg2600-2	DM2	SAM	1709627-09	100	10/19/2017 15:51:51	87756-1.RAW	3:51:51 PM	199.90	3		193.2	0.978	97.811	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	10/19/2017 15:55:59	87757-1.RAW	3:55:59 PM	907.23			900.6	4.674	4.674	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	10/19/2017 16:00:08	87758-1.RAW	4:00:08 PM	18.73			12.1	0.063	0.063	ng/L	
Hg2600-2	DM2	SAM	1709627-10	20	10/19/2017 16:04:16	87759-1.RAW	4:04:16 PM	1018.21	3		1011.5	5.126	102.519	ng/L	
Hg2600-2	DM2	SAM	1709627-11	20	10/19/2017 16:08:25	87760-1.RAW	4:08:25 PM	1279.98	3		1273.3	6.485	129.691	ng/L	
Hg2600-2	DM2	SAM	1709627-12	20	10/19/2017 16:12:33	87761-1.RAW	4:12:33 PM	954.63	3		948.0	4.796	95.919	ng/L	
Hg2600-2	DM2	SAM	1709627-13	20	10/19/2017 16:16:41	87762-1.RAW	4:16:41 PM	1344.33	3		1337.7	6.819	136.370	ng/L	
Hg2600-2	DM2	SAM	1709627-14	20	10/19/2017 16:20:50	87763-1.RAW	4:20:50 PM	873.00	3		866.3	4.372	87.446	ng/L	
Hg2600-2	DM2	SAM	1709627-15	20	10/19/2017 16:24:58	87764-1.RAW	4:24:58 PM	1376.63	3		1370.0	6.986	139.723	ng/L	
Hg2600-2	DM2	SAM	1709627-16	20	10/19/2017 16:29:07	87765-1.RAW	4:29:07 PM	1008.07	3		1001.4	5.073	101.467	ng/L	
Hg2600-2	DM2	SAM	1709627-17	20	10/19/2017 16:33:15	87766-1.RAW	4:33:15 PM	1069.75	3		1063.1	5.393	107.869	ng/L	
Hg2600-2	DM2	SAM	1709627-18	20	10/19/2017 16:37:24	87767-1.RAW	4:37:24 PM	885.28	3		878.6	4.436	88.722	ng/L	
Hg2600-2	DM2	SAM	1709627-01RE1	20	10/19/2017 16:41:32	87768-1.RAW	4:41:32 PM	806.96	3		800.3	4.030	80.592	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	10/19/2017 16:45:41	87769-1.RAW	4:45:41 PM	911.28			904.6	4.695	4.695	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	10/19/2017 16:49:49	87770-1.RAW	4:49:49 PM	22.29			15.6	0.081	0.081	ng/L	
Hg2600-2	DM2	SAM	1709627-02RE1	20	10/19/2017 16:53:57	87771-1.RAW	4:53:57 PM	807.52	3		800.9	4.032	80.650	ng/L	
Hg2600-2	DM2	SAM	1709627-05RE1	20	10/19/2017 16:58:06	87772-1.RAW	4:58:06 PM	963.38	3		956.7	4.841	96.829	ng/L	
Hg2600-2	DM2	SAM	1709627-06RE1	20	10/19/2017 17:02:14	87773-1.RAW	5:02:14 PM	782.87	3		776.2	3.905	78.091	ng/L	
Hg2600-2	DM2	SAM	1709627-09RE1	20	10/19/2017 17:06:23	87774-1.RAW	5:06:23 PM	902.83	3		896.2	4.527	90.543	ng/L	
Hg2600-2	DM2	SAM	F710262-DUP1	100	10/19/2017 17:10:31	87775-1.RAW	5:10:31 PM	1361.63	3		1355.0	7.007	700.744	ng/L	
Hg2600-2	DM2	SAM	F710262-MS1	400	10/19/2017 17:14:40	87776-1.RAW	5:14:40 PM	2456.89	3		2450.2	12.710	5084.163	ng/L	
Hg2600-2	DM2	SAM	F710262-MSD1	400	10/19/2017 17:18:48	87777-1.RAW	5:18:48 PM	2322.53	3		2315.9	12.013	4805.224	ng/L	
Hg2600-2	DM2	SAM	F710262-MS2	400	10/19/2017 17:22:57	87778-1.RAW	5:22:57 PM	2181.96	3		2175.3	11.284	4513.421	ng/L	
Hg2600-2	DM2	SAM	F710262-MSD2	400	10/19/2017 17:27:05	87779-1.RAW	5:27:05 PM	2172.67	3		2166.0	11.235	4494.128	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	10/19/2017 17:31:13	87780-1.RAW	5:31:13 PM	930.02			923.4	4.792	4.792	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	10/19/2017 17:35:22	87781-1.RAW	5:35:22 PM	26.20			19.5	0.101	0.101	ng/L	
Hg2600-2	DM2	BLK	F710405-BLK1	50	10/19/2017 17:39:30	87782-1.RAW	5:39:30 PM	23.98	4		17.3	0.090	4.495	ng/L	
Hg2600-2	DM2	BLK	F710405-BLK2	50	10/19/2017 17:43:39	87783-1.RAW	5:43:39 PM	27.04	4		20.4	0.106	5.287	ng/L	
Hg2600-2	DM2	SAM	F710405-BS1	400	10/19/2017 17:47:47	87784-1.RAW	5:47:47 PM	1334.43	4		1327.8	6.879	2751.531	ng/L	
Hg2600-2	DM2	SAM	F710405-BSD1	400	10/19/2017 17:51:56	87785-1.RAW	5:51:56 PM	1337.29	4		1330.6	6.894	2757.464	ng/L	
Hg2600-2	DM2	SAM	1710616-01	50	10/19/2017 17:56:04	87786-1.RAW	5:56:04 PM	28.84	4		22.2	0.017	0.864	ng/L	
Hg2600-2	DM2	SAM	F710405-MS1	400	10/19/2017 18:00:13	87787-1.RAW	6:00:13 PM	1291.87	4		1285.2	6.658	2663.193	ng/L	
Hg2600-2	DM2	SAM	F710405-MSD1	400	10/19/2017 18:04:21	87788-1.RAW	6:04:21 PM	1322.80	4		1316.1	6.818	2727.397	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV9	1	10/19/2017 18:08:29	87789-1.RAW	6:08:29 PM	948.51			941.8	4.888	4.888	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB9	1	10/19/2017 18:12:38	87790-1.RAW	6:12:38 PM	23.43			16.8	0.087	0.087	ng/L	

TotalMercury EPA1631 Operat DM BlankS 6.6633 Calib Eqn: Conc = (Area-6.6633 Run Date: ##### Blank SD: 1.688847051
 Works1 THg2601 CalibFa 192.68 Status: QC Warnings:5/QC I Run Time: 10:06:35 Blank RSD%: 25.34568574
 Methoc ##### R: 1 R2: 0.9999 CF SD: 7.461022074
 Descrip THg26002-171019-1 CF RSD%: 3.872247624

SampleID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean					0.00	5.42				87673-1.RAW	10:09:27	1044.02	Clean	OK	1
Clean					0.00	0.03				87674-1.RAW	10:12:18	5.45	Clean	OK	1
ws					6.66	0.01				87675-1.RAW	10:16:27	8.20	Sample	OK	1
ws					6.66	0.01				87676-1.RAW	10:20:35	7.70	Sample	OK	1
ws					6.66	0.02				87677-1.RAW	10:24:44	10.14	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.03					87678-1.RAW	10:28:52	5.84	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.04					87679-1.RAW	10:33:00	8.61	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.03					87680-1.RAW	10:37:09	5.54	Sample	OK	1
SEQ-CAL1	A4		1	6.66	0.53			105.51		87681-1.RAW	10:41:17	108.32	Sample	OK	1
SEQ-CAL2	A5		1	6.66	1.00			99.84		87682-1.RAW	10:45:26	199.04	Sample	OK	1
SEQ-CAL3	A6		1	6.66	5.09			101.80		87683-1.RAW	10:49:34	987.37	Sample	OK	1
SEQ-CAL4	A7		1	6.66	19.16			95.82		87684-1.RAW	10:53:43	3699.28	Sample	OK	1
SEQ-CAL5	A8		1	6.66	38.81			97.02		87685-1.RAW	10:57:51	7484.41	Sample	OK	1
SEQ-ICV1	A9		1	6.66	5.02			100.42		87686-1.RAW	11:01:59	974.06	Sample	OK	1
F710387-BLK1	A10		20	6.66	3.70					87687-1.RAW	11:06:08	42.35	Sample	OK	1
F710387-BLK2	A11		20	6.66	1.65					87688-1.RAW	11:10:16	22.57	Sample	OK	1
F710387-BLK3	A12		20	6.66	1.96					87689-1.RAW	11:14:25	25.54	Sample	OK	1
F710387-BS1	A13		20	6.66	98.10					87690-1.RAW	11:18:33	951.71	Sample	OK	1
F710387-BSD1	A14		20	6.66	91.67					87691-1.RAW	11:22:42	889.77	Sample	OK	1
F710387-BS2	A15		400	6.66	1928.46					87692-1.RAW	11:26:50	935.60	Sample	OK	1
1709628-15	A16		100	6.66	992.42					87693-1.RAW	11:30:58	1918.86	Sample	OK	1
1709628-16RE1	A17		100	6.66	2516.10					87694-1.RAW	11:35:07	4854.67	Sample	OK	1
1709628-18RE1	A18		100	6.66	1039.74					87695-1.RAW	11:39:15	2010.02	Sample	OK	1
F710387-DUP1	A19		100	6.66	1246.54					87696-1.RAW	11:43:24	2408.48	Sample	OK	1
SEQ-CCV1	A20		1	6.66	4.83			96.53		87697-1.RAW	11:47:32	936.66	Sample	OK	1
SEQ-CCB1	A21		1	6.66	0.10			0.00		87698-1.RAW	11:51:40	25.89	Sample	OK	1
F710387-MS1	B1		400	6.66	5448.34			495401.65		87699-1.RAW	11:55:49	2631.12	Sample	OK	1
F710387-MSD1	B2		400	6.66	5234.62					87700-1.RAW	11:59:57	2528.17	Sample	OK	1
F710260-BLK1	B3		20	6.66	2.84					87701-1.RAW	12:04:06	33.99	Sample	OK	1
F710260-BLK2	B4		20	6.66	1.93					87702-1.RAW	12:08:14	25.22	Sample	OK	1
F710260-BLK3	B5		20	6.66	1.28					87703-1.RAW	12:12:23	19.04	Sample	OK	1
F710260-BS1	B6		20	6.66	101.73					87704-1.RAW	12:16:31	986.77	Sample	OK	1
F710260-BSD1	B7		20	6.66	93.27					87705-1.RAW	12:20:39	905.24	Sample	OK	1
F710260-BS2	B8		400	6.66	1952.87					87706-1.RAW	12:24:48	947.36	Sample	OK	1
1709624-01	B9		100	6.66	907.08					87707-1.RAW	12:28:56	1754.42	Sample	OK	1
1709624-02	B10		100	6.66	813.07					87708-1.RAW	12:33:05	1573.28	Sample	OK	1
SEQ-CCV2	B11		1	6.66	4.64			92.72		87709-1.RAW	12:37:13	899.88	Sample	OK	1
SEQ-CCB2	B12		1	6.66	0.09			0.00		87710-1.RAW	12:41:21	23.19	Sample	OK	1
1709624-03	B13		100	6.66	1049.70					87711-1.RAW	12:45:30	2029.22	Sample	OK	1
1709624-04	B14		100	6.66	1222.62					87712-1.RAW	12:49:38	2362.39	Sample	OK	1
1709624-05	B15		100	6.66	1088.59					87713-1.RAW	12:53:47	2104.16	Sample	OK	1
1709626-04	B16		100	6.66	1027.19					87714-1.RAW	12:57:55	1985.84	Sample	OK	1
1709626-05	B17		100	6.66	645.96					87715-1.RAW	13:02:04	1251.30	Sample	OK	1
1709626-06	B18		100	6.66	513.81					87716-1.RAW	13:06:12	996.66	Sample	OK	1
1709626-07	B19		100	6.66	734.31					87717-1.RAW	13:10:20	1421.52	Sample	OK	1
1709626-08	B20		100	6.66	570.40					87718-1.RAW	13:14:29	1105.71	Sample	OK	1
1709626-09	B21		100	6.66	509.77					87719-1.RAW	13:18:38	988.88	Sample	OK	1
1709626-10	C1		100	6.66	664.33					87720-1.RAW	13:22:47	1286.70	Sample	OK	1
SEQ-CCV3	C2		1	6.66	4.85			97.05		87721-1.RAW	13:26:55	941.64	Sample	OK	1
SEQ-CCB3	C3		1	6.66	0.11			0.00		87722-1.RAW	13:31:04	26.99	Sample	OK	1
1709626-18	C4		100	6.66	640.02					87723-1.RAW	13:35:12	1239.86	Sample	OK	1
1709626-11	C5		100	6.66	850.14					87724-1.RAW	13:39:21	1644.71	Sample	OK	1
1709626-12	C6		100	6.66	576.28					87725-1.RAW	13:43:29	1117.03	Sample	OK	1
1709626-13	C7		100	6.66	681.53					87726-1.RAW	13:47:38	1319.84	Sample	OK	1
1709626-14	C8		100	6.66	676.59					87727-1.RAW	13:51:46	1310.31	Sample	OK	1
1709626-15	C9		100	6.66	594.89					87728-1.RAW	13:55:54	1152.90	Sample	OK	1
1709626-16	C10		100	6.66	693.03					87729-1.RAW	14:00:03	1341.99	Sample	OK	1
1709626-17	C11		100	6.66	635.76					87730-1.RAW	14:04:11	1231.63	Sample	OK	1
F710260-MS1	C12		400	6.66	4680.31			735.03		87731-1.RAW	14:08:20	2261.16	Sample	OK	1

F710260-MSD1	C13	400	6.66	4971.66		87732-1.RAW	14:12:28	2401.51	Sample	OK	1
SEQ-CCV4	C14	1	6.66	4.85	97.03	87733-1.RAW	14:16:37	941.42	Sample	OK	1
SEQ-CCB4	C15	1	6.66	0.10	0.00	87734-1.RAW	14:20:45	26.33	Sample	OK	1
F710260-DUP1	C16	100	6.66	694.10		87735-1.RAW	14:24:54	1344.06	Sample	OK	1
F710260-MS2	C17	400	6.66	5253.67	754.73	87736-1.RAW	14:29:02	2537.35	Sample	OK	1
F710260-MSD2	C18	400	6.66	5354.88		87737-1.RAW	14:33:10	2586.10	Sample	OK	1
F710262-BLK1	C19	20	6.66	4.03		87738-1.RAW	14:37:19	45.45	Sample	OK	1
F710262-BLK2	C20	20	6.66	1.85		87739-1.RAW	14:41:27	24.51	Sample	OK	1
F710262-BLK3	C21	20	6.66	1.56		87740-1.RAW	14:45:36	21.66	Sample	OK	1
F710262-BS1	A1	20	6.66	101.40		87741-1.RAW	14:49:44	983.55	Sample	OK	1
F710262-BSD1	A2	20	6.66	98.69		87742-1.RAW	14:53:53	957.43	Sample	OK	1
F710262-BS2	A3	400	6.66	2017.27		87743-1.RAW	14:58:01	978.38	Sample	OK	1
1709626-19	A4	100	6.66	673.40		87744-1.RAW	15:02:10	1304.16	Sample	OK	1
SEQ-CCV5	A5	1	6.66	4.98	99.69	87745-1.RAW	15:06:18	967.11	Sample	OK	1
SEQ-CCB5	A6	1	6.66	0.10	0.00	87746-1.RAW	15:10:26	25.77	Sample	OK	1
1709626-20	A7	100	6.66	650.16		87747-1.RAW	15:14:35	1259.39	Sample	OK	1
1709627-01	A8	100	6.66	88.83		87748-1.RAW	15:18:43	177.83	Sample	OK	1
1709627-02	A9	100	6.66	93.80		87749-1.RAW	15:22:52	187.39	Sample	OK	1
1709627-03	A10	100	6.66	151.62		87750-1.RAW	15:27:00	298.80	Sample	OK	1
1709627-04	A11	100	6.66	119.97		87751-1.RAW	15:31:09	237.81	Sample	OK	1
1709627-05	A12	100	6.66	99.81		87752-1.RAW	15:35:17	198.98	Sample	OK	1
1709627-06	A13	100	6.66	86.63		87753-1.RAW	15:39:26	173.58	Sample	OK	1
1709627-07	A14	100	6.66	152.43		87754-1.RAW	15:43:34	300.36	Sample	OK	1
1709627-08	A15	100	6.66	178.82		87755-1.RAW	15:47:42	351.21	Sample	OK	1
1709627-09	A16	100	6.66	100.29		87756-1.RAW	15:51:51	199.90	Sample	OK	1
SEQ-CCV6	A17	1	6.66	4.67	93.48	87757-1.RAW	15:55:59	907.23	Sample	OK	1
SEQ-CCB6	A18	1	6.66	0.06	0.00	87758-1.RAW	16:00:08	18.73	Sample	OK	1
1709627-10	A19	20	6.66	105.00		87759-1.RAW	16:04:16	1018.21	Sample	OK	1
1709627-11	A20	20	6.66	132.17		87760-1.RAW	16:08:25	1279.98	Sample	OK	1
1709627-12	A21	20	6.66	98.40		87761-1.RAW	16:12:33	954.63	Sample	OK	1
1709627-13	B1	20	6.66	138.85		87762-1.RAW	16:16:41	1344.33	Sample	OK	1
1709627-14	B2	20	6.66	89.92		87763-1.RAW	16:20:50	873.00	Sample	OK	1
1709627-15	B3	20	6.66	142.20		87764-1.RAW	16:24:58	1376.63	Sample	OK	1
1709627-16	B4	20	6.66	103.95		87765-1.RAW	16:29:07	1008.07	Sample	OK	1
1709627-17	B5	20	6.66	110.35		87766-1.RAW	16:33:15	1069.75	Sample	OK	1
1709627-18	B6	20	6.66	91.20		87767-1.RAW	16:37:24	885.28	Sample	OK	1
1709627-01RE1	B7	20	6.66	83.07		87768-1.RAW	16:41:32	806.96	Sample	OK	1
SEQ-CCV7	B8	1	6.66	4.69	93.90	87769-1.RAW	16:45:41	911.28	Sample	OK	1
SEQ-CCB7	B9	1	6.66	0.08	0.00	87770-1.RAW	16:49:49	22.29	Sample	OK	1
1709627-02RE1	B10	20	6.66	83.13		87771-1.RAW	16:53:57	807.52	Sample	OK	1
1709627-05RE1	B11	20	6.66	99.31		87772-1.RAW	16:58:06	963.38	Sample	OK	1
1709627-06RE1	B12	20	6.66	80.57		87773-1.RAW	17:02:14	782.87	Sample	OK	1
1709627-09RE1	B13	20	6.66	93.02		87774-1.RAW	17:06:23	902.83	Sample	OK	1
F710262-DUP1	B14	100	6.66	703.22		87775-1.RAW	17:10:31	1361.63	Sample	OK	1
F710262-MS1	B15	400	6.66	5086.64	722.31	87776-1.RAW	17:14:40	2456.89	Sample	OK	1
F710262-MSD1	B16	400	6.66	4807.70		87777-1.RAW	17:18:48	2322.53	Sample	OK	1
F710262-MS2	B17	400	6.66	4515.90	93.89	87778-1.RAW	17:22:57	2181.96	Sample	OK	1
F710262-MSD2	B18	400	6.66	4496.61		87779-1.RAW	17:27:05	2172.67	Sample	OK	1
SEQ-CCV8	B19	1	6.66	4.79	95.84	87780-1.RAW	17:31:13	930.02	Sample	OK	1
SEQ-CCB8	B20	1	6.66	0.10	0.00	87781-1.RAW	17:35:22	26.20	Sample	OK	1
F710405-BLK1	B21	50	6.66	4.49		87782-1.RAW	17:39:30	23.98	Sample	OK	1
F710405-BLK2	C1	50	6.66	5.29		87783-1.RAW	17:43:39	27.04	Sample	OK	1
F710405-BS1	C2	400	6.66	2756.42		87784-1.RAW	17:47:47	1334.43	Sample	OK	1
F710405-BSD1	C3	400	6.66	2762.36		87785-1.RAW	17:51:56	1337.29	Sample	OK	1
1710616-01	C4	50	6.66	5.75		87786-1.RAW	17:56:04	28.84	Sample	OK	1
F710405-MS1	C5	400	6.66	2668.08	39498.37	87787-1.RAW	18:00:13	1291.87	Sample	OK	1
F710405-MSD1	C6	400	6.66	2732.29		87788-1.RAW	18:04:21	1322.80	Sample	OK	1
SEQ-CCV9	C7	1	6.66	4.89	97.76	87789-1.RAW	18:08:29	948.51	Sample	OK	1
SEQ-CCB9	C8	1	6.66	0.09	0.00	87790-1.RAW	18:12:38	23.43	Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7J20015

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R*

Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J20015-IBL1 ✓	QC	1			
7J20015-IBL2 ✓	QC	2			
7J20015-IBL3 ✓	QC	3			
7J20015-CAL1 ✓	QC	4	1704505	✓	
7J20015-CAL2 ✓	QC	5	1704506	✓	
7J20015-CAL3 ✓	QC	6	1704507	✓	
7J20015-CAL4 ✓	QC	7	1704508	✓	
7J20015-CAL5 ✓	QC	8	1704509	✓	
7J20015-ICV1 ✓	QC	9	1705628	✓	
7J20015-CCV1 ✓	QC	10	1705628	✓	
7J20015-CCB1 ✓	QC	11			
7J20015-CCV2 ✓	QC	12	1705628	✓	
7J20015-CCB2 ✓	QC	13			
7J20015-CCV3 ✓	QC	14	1705628	✓	
7J20015-CCB3 ✓	QC	15			
7J20015-CCV4 ✓	QC	16	1705628	✓	
7J20015-CCB4 ✓	QC	17			
7J20015-CCV5 ✓	QC	18	1705628	✓	
7J20015-CCB5 ✓	QC	19			
7J20015-CCV6 ✓	QC	20	1705628	✓	
7J20015-CCB6 ✓	QC	21			
7J20015-CCV7 ✓	QC	22	1705628	✓	
7J20015-CCB7 ✓	QC	23			
7J20015-CCV8 ✓	QC	24	1705628	✓	
7J20015-CCB8 ✓	QC	25			
F710405-BLK1 ✓	QC	26			
F710405-BLK2 ✓	QC	27			
F710405-BS1 ✓	QC	28			
F710405-BSD1 ✓	QC	29			
1710616-01 ✓	Hg-CVAFS-S-Bomb	30			QG00L-1 - Prep 2.0-2.15 grams
F710405-MS1 ✓	QC	31			
F710405-MSD1 ✓	QC	32		✓	
7J20015-CCV9 ✓	QC	33	1705628		
7J20015-CCB9 ✓	QC	34			

Due Date: 10/24/2017

ANALYSIS SEQUENCE

7J20015

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Dan Mason 10/19/17
Samples Loaded By Date

Dan Mason 10/20/17
Data Processed By Date

PREPARATION BENCH SHEET

F710405

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/18/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710405-BLK1	Blank	0.5	50					
F710405-BLK2	Blank	0.5	50					
F710405-BS1	LCS	0.5	50	1705879	50			
F710405-BSD1	LCS Dup	0.5	50	1705879	50			
F710405-MS1	Matrix Spike [1710616-01]	2.0109	50	1705879	50			
F710405-MSD1	Matrix Spike Dup [1710616-01]	2.0225	50	1705879	50			

Standard ID(s): 1705879
Description: EFGS-PREPSPIKE1/2, plus Hg

Expiration: 02-Jan-18 00:00

<u>Reagent ID(s):</u> 1703182	<u>Description:</u> 25% Hydroxylamine-HCl working solution	<u>Expiration:</u> 24-Nov-17 00:00
1705610	THg Washstation (0.5% BrCl)	
1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
1705679	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

PREPARATION BENCH SHEET

F710405

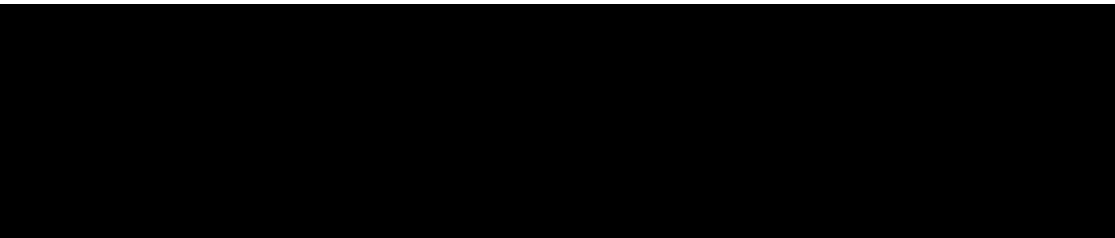
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/18/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710616-01	740-2017-10160089 EUUSBO2-00095035	2.0365	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	



Sample Preparation Review Checklist

Revision: 3
Effective: Dec. 5, 2013

Technician/Date: MMP 10/19/2017

Samples to lab: 1500

Batch #: F710405

Upload/Date: MMP 10/19/2017

Reviewer/Date: _____

EFGS Preparation Method

FGS-032 Co-APDC

FGS-052 Oven Digestion (Total Recoverable Metals) ICPMS AFS

FGS-058 Nitric Digestion ICPMS CVAFS

FGS-084 Modified Aqua Regia (Ag, Sb only)

FGS-108 Cr+6 Sediments/Tissues

FGS-109 RP

FGS-111 HF Bomb Digestion ICPMS CVAFS

FGS-141 Nitric Bomb Digestion ICPMS CVAFS

FGS-145 Oven Digestion (As, Se Speciation) As Se

FGS-146 Microwave Digestion (Nutraceuticals)

FGS-146 Microwave Digestion (CPSC-Metal)

FGS-146 Microwave Digestion (CPSC-Non-Metal/Paint)

FGS-149 Oven Digestion (Aqueous Nutraceuticals)

NA Other:

Initials	SOP Date	DOC Date
<u>MMP</u>	<u>2/14/2017</u>	<u>12/28/2016</u>
_____	_____	_____
_____	_____	_____

Comments: _____

Conditionally formatted training files located at:
\\us34file\General and Admin\Quality Assurance\Training\Training Master
(Contact QA for any problems regarding these training files.)

Analytes: Hg

	Reviewer Initials	Tertiary Review
1. Is any SOP/DOC expiring within one week of Submission Date? Data cannot be reported without a current IDOC/CDOC.	<input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/>
2. Check prep method	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/>
(a) For Ceuticals: Is correct Hg code being used in LIMS? <input type="checkbox"/> ICPMS <input checked="" type="checkbox"/> CV-AFS <input type="checkbox"/> 70:30 <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3. Compare sample ID with benchsheet	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
4. Verify time of submission? (if not met please explain in the comments)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(a) Oven bomb - digestion start time before 14:00?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(b) Microwave - submitted to the lab before 16:00?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
5. Check for transcription errors from benchsheet	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/>
(a) Check and compare initial and final volumes	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(b) Check and compare mass	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(c) Has the number of pills been documented (benchsheet and LIMS)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(d) Benchsheet prep date MUST match actual prep date	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/>
6. Samples per Batch? Check QC Requirements	<input type="checkbox"/> ≤ 20 <input checked="" type="checkbox"/> ≤ 10	<input checked="" type="checkbox"/>
(a) PBs per batch? <input type="checkbox"/> 3 PBs <input checked="" type="checkbox"/> 2 PB <input type="checkbox"/> 1 PB	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
(b) BS, BS/BSD or CRM in batch? <input type="checkbox"/> BS <input checked="" type="checkbox"/> BS/BSD <input type="checkbox"/> CRM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
(c) MS/MSD in batch?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(d) MD in batch?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(e) Client specific WO #'s: _____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(f) Are there any client specific requests and/or alterations? Document: _____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(g) Correct LIMS spike ID included for BS, BS/BSD and/or MS/MSD?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(h) Correct 'source' designated for MD/MS/MSD?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(i) For EFGS-filtered samples, was a filtration blank included?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
7. Are the samples appropriately spiked?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(a) Is the spike and amount used appropriate and entered into LIMS?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(b) For IDOCs, was there a spike witness? (initials <u>must</u> be in logbook)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(c) Spikes added:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>

NOTE: Due to LIMS software constraints, new LIMS IDs need to be created when multiple/ supplemental spikes are used. Enter new LIMS ID below and use table to list all spikes included in it.

Spike LIMS ID: 1705879 1705879

Spike Name	LIMS ID	μL	Spike Name	LIMS ID	μL
<u>Propylol</u>	<u>1703595</u>	<u>50</u>			
<u>Propylol 2</u>	<u>1703596</u>	<u>50</u>			
<u>T Hg</u>	<u>1705879</u>	<u>50</u>			

PREPARATION BENCH SHEET

2000-2
10/19/17 DM

F710405

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/18/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710405-BLK1	Blank	0.5	50					50X /
F710405-BLK2	Blank	0.5	50					50X /
F710405-BS1	LCS	0.5	50	1705879	50			400X /
F710405-BSD1	LCS Dup	0.5	50	1705879	50			400X /
F710405-MS1	Matrix Spike [1710616-01]	2.0109	50	1705879	50			400X /
F710405-MSD1	Matrix Spike Dup [1710616-01]	2.0225	50	1705879	50			400X /

Standard ID(s):
1705879

Description:
EFGS-PREPSPIKE1/2, plus Hg

Expiration:
02-Jan-18 00:00

Reagent ID(s):
1705679

Description:
Fisher Nitric Acid, Tracemetal Grade

Expiration:
15-Mar-19 00:00

1703182
1705610
1705611
1706142

PREPARATION BENCH SHEET

2600-2
10/19/17 DM

F710405

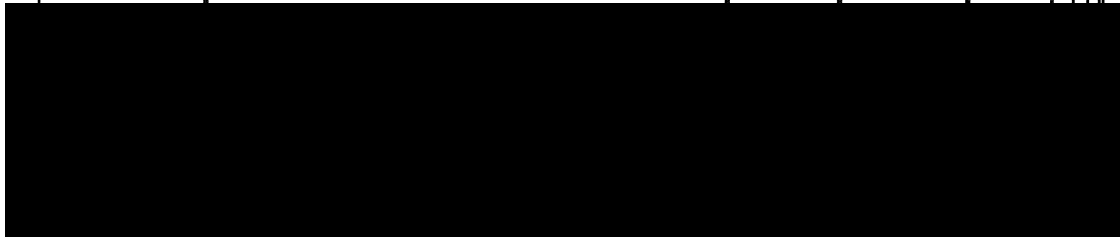
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/18/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710616-01	740-2017-10160089 EUUSBO2-00095035	2.0365	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	SOX ✓



Ceutical Digestions

Batch TM / Hg (circle one) : F710400/401/405 Boiling Chips ^{imp 10/18/2017} ~~LIMS ID~~ 2256094
 Lot No. 2256094

Batch continued on next page? Yes No

1° Tech.: WMP 2° Tech.: WCL Date/Time In: 10/18/2017 1500

Date/Time Out: 10/18/2017 0900 by Timer

Spiked By: WMP Spike Witness (SW): BB

Final Vol. (mL)/Initials/Date:

Balance ID/Cal.? (N): 20 / 10/18/2017

50 WMP 10/18/2017

Digestion: Oven ID: OVN-02 Other ID: _____

Vial Type: 50 mL Centrifuge Tube Teflon

Analysis: ICP-MS CV-AFS

LC-ICP-MS Other: _____

Thermometer ID: 1312060130 Initial: Temp. (°C): 160 / 158.6 / 158.9
 target raw corrected

Final: Temp. (°C): 160 / TIMER
 target raw corrected

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (<input type="checkbox"/> g <input type="checkbox"/> mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
1	NA	X184	F710400-BLK1	D	0.7355	Boil Chips (BL)	✓	
2	NA	X176	F710400-BLK2	D	0.6595	BC	✓	Shared with F710405
3	NA	TH036	F710400-BS1	BD	0.7416	BC	✓	Dry WMP 10/18/2017
4	TH014	TH017	F710400-BS1	D	0.5665	BC	✓	Shared with F710405 BSI
5	NA	X079	1710556-01	E	1.2980	Food (F)	✓	
6	NA	N371	1710556-01 DUPI	E	1.0977	F	✓	
7	NA	N476	1710556-01 MS1	E	1.2078	F	✓	
8	NA	X015	1710556-01 MS1	E	1.8343	F	✓	
9	NA	X024	1710589-01	B	1.0594	F	✓	

Initials: W

	Spike Name	SW	Volume (µL)	LIMS ID	Pipette ID	Cal. Date
A	Pump Spike 1	<input type="checkbox"/>	50	1703595	312664	10/18/2017
B	Pump Spike 2	<input type="checkbox"/>	50	1703596		
C	TH	<input type="checkbox"/>	50	1705878		WMP 10/18/2017
D		<input type="checkbox"/>				
E		<input type="checkbox"/>				

Preparation Method SOP: EFGS-141		
Reagent	Volume (mL)	LIMS ID
HNO ₃	7.5	WMP 10/18/2017 1705878 1705679

1	Combined Spike ID: <u>AL = 1705879</u> ; Batches: <u>F710400/401/405</u>
2	Combined Spike ID: _____ ; Batches: <u>WMP 10/18/2017</u>

Batch continued on next page? Yes No

Ceutral Digestions

Batch/TM/Hg (circle one): F710401/405

Boiling Chips ^{MMP10/15/2017} LIMS ID 23569044
Lot No.

Batch continued on next page? Yes No

1° Tech.: _____ 2° Tech.: _____ Date/Time In: _____

Date/Time Out: _____

Spiked By: _____ Spike Witness (SW): _____

See Pg 6

Final Vol. (mL)/Initials/Date: _____

Balance ID/Cal.? (Y/N): _____

Digestion: Oven ID: _____ Other ID: MMP10/15/2017

Vial Type: 50 mL Centrifuge Tube Teflon

Analysis: ICP-MS CV-AFS
 LC-ICP-MS Other: _____

Thermometer ID: _____ Initial: Temp. (°C): _____
target raw corrected

Final: Temp. (°C): _____
target raw corrected

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (g mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
1	N/A	X095	F710401-BLK	N/A	0.5347	Boiling Chips (BC)	-	} Dry MMP10/15/2017 BLK
2	N/A	N399	F710401-BLK 2	N/A	0.9051	BC	-	
3	X119	N396	F710401-B31	N/A	0.5380	BC	-	
4	TH041	X070	F710401-BSDI	N/A	0.7508	BC	-	} Dry MMP10/15/2017
5	N/A	N451	1710574-05	A	0.8152	Liquid (L)	-	
6	N/A	X001	1710574-05 Dupl	A	0.9815	L	-	
7	TH046	TH039	1710574-05MSL	A	0.9468	L	-	MSL
8	TH035	X197	1710574-05MSL	A	1.0877	L	-	MSL 10-10-17 MSDI Dry MMP10/15/2017
9	NA	V412	1710016-01	A	2.0365	Powder (P)	-	Shared with F710405

Initials: W

See Pg 6

Spike Name	SW	Volume (µL)	LIMS ID	Pipette ID	Cal. Date
A	<input type="checkbox"/>				
B	<input type="checkbox"/>				
C	<input type="checkbox"/>				
D	<input type="checkbox"/>				
E	<input type="checkbox"/>				

Preparation Method SOP: EFGS		
Reagent	Volume (mL)	LIMS ID

1 Combined Spike ID: _____ = _____ ; Batches: _____
2 Combined Spike ID: _____ = _____ ; Batches: _____

Batch continued on next page? Yes No

Failing Data Report - 7J20015

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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 Dan Maxem 10/20/17
Analyst Reviewed By Date

 [Signature] 10/20/17
Peer Reviewed By Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7J20014

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R* 10/20/17 Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J20014-IBL1 ✓	QC	1			
7J20014-IBL2 ✓	QC	2			
7J20014-IBL3 ✓	QC	3			
7J20014-CAL1 ✓	QC	4	1704505 ✓		
7J20014-CAL2 ✓	QC	5	1704506 ✓		
7J20014-CAL3 ✓	QC	6	1704507 ✓		
7J20014-CAL4 ✓	QC	7	1704508 ✓		
7J20014-CAL5 ✓	QC	8	1704509 ✓		
7J20014-ICV1 ✓	QC	9	1705628 ✓		
F710387-BLK1 ✓	QC	10			
F710387-BLK2 ✓	QC	11			
F710387-BLK3 ✓	QC	12			
F710387-BS1 ✓	QC	13			
F710387-BSD1 ✓	QC	14			
F710387-BS2 ✓	QC	15			
1709628-15 ✓	Hg-CVAFS-T-7030	16			
1709628-16RE1 ✓	Hg-CVAFS-T-7030	17			Redigest for confirmation. PL 10/16/17
1709628-18RE1 ✓	Hg-CVAFS-T-7030	18			Redigest for confirmation. PL 10/16/17
F710387-DUP1 ✓	QC	19			
7J20014-CCV1 ✓	QC	20	1705628 ✓		
7J20014-CCB1 ✓	QC	21			
F710387-MS1 ✓	QC	22			
F710387-MSD1 ✓	QC	23			
F710260-BLK1 ✓	QC	24			
F710260-BLK2 ✓	QC	25			
F710260-BLK3 ✓	QC	26			
F710260-BS1 ✓	QC	27			
F710260-BSD1 ✓	QC	28			
F710260-BS2 ✓	QC	29			
1709624-01 ✓	Hg-CVAFS-T-7030	30			
1709624-02 ✓	Hg-CVAFS-T-7030	31			
7J20014-CCV2 ✓	QC	32	1705628 ✓		
7J20014-CCB2 ✓	QC	33			
1709624-03 ✓	Hg-CVAFS-T-7030	34			
1709624-04 ✓	Hg-CVAFS-T-7030	35			

Due Date: 10/20/2017

ANALYSIS SEQUENCE

7J20014

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709624-05 ✓	Hg-CVAFS-T-7030	36			
1709626-04 ✓	Hg-CVAFS-T-7030	37			
1709626-05 ✓	Hg-CVAFS-T-7030	38			
1709626-06 ✓	Hg-CVAFS-T-7030	39			
1709626-07 ✓	Hg-CVAFS-T-7030	40			
1709626-08 ✓	Hg-CVAFS-T-7030	41			
1709626-09 ✓	Hg-CVAFS-T-7030	42			
1709626-10 ✓	Hg-CVAFS-T-7030	43			
7J20014-CCV3 ✓	QC	44	1705628	✓	
7J20014-CCB3 ✓	QC	45			
1709626-18 ✓	Hg-CVAFS-T-7030	46			
1709626-11 ✓	Hg-CVAFS-T-7030	47			
1709626-12 ✓	Hg-CVAFS-T-7030	48			
1709626-13 ✓	Hg-CVAFS-T-7030	49			
1709626-14 ✓	Hg-CVAFS-T-7030	50			
1709626-15 ✓	Hg-CVAFS-T-7030	51			
1709626-16 ✓	Hg-CVAFS-T-7030	52			
1709626-17 ✓	Hg-CVAFS-T-7030	53			
F710260-MS1 ✓	QC	54			
F710260-MSD1 ✓	QC	55			
7J20014-CCV4 ✓	QC	56	1705628	✓	
7J20014-CCB4 ✓	QC	57			
F710260-DUP1 ✓	QC	58			
F710260-MS2 ✓	QC	59			
F710260-MSD2 ✓	QC	60			
F710262-BLK1 ✓	QC	61			
F710262-BLK2 ✓	QC	62			
F710262-BLK3 ✓	QC	63			
F710262-BS1 ✓	QC	64			
F710262-BSD1 ✓	QC	65			
F710262-BS2 ✓	QC	66			
1709626-19 ✓	Hg-CVAFS-T-7030	67			
7J20014-CCV5 ✓	QC	68	1705628	✓	
7J20014-CCB5 ✓	QC	69			
1709626-20 ✓	Hg-CVAFS-T-7030	70			

Due Date: 10/20/2017

ANALYSIS SEQUENCE

7J20014

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709627-01 ✓	Hg-CVAFS-T-7030	71			
1709627-02 ✓	Hg-CVAFS-T-7030	72			
1709627-03 ✓	Hg-CVAFS-T-7030	73			
1709627-04 ✓	Hg-CVAFS-T-7030	74			
1709627-05 ✓	Hg-CVAFS-T-7030	75			
1709627-06 ✓	Hg-CVAFS-T-7030	76			
1709627-07 ✓	Hg-CVAFS-T-7030	77			
1709627-08 ✓	Hg-CVAFS-T-7030	78			
1709627-09 ✓	Hg-CVAFS-T-7030	79			
7J20014-CCV6 ✓	QC	80	1705628	✓	
7J20014-CCB6 ✓	QC	81			
1709627-10 ✓	Hg-CVAFS-T-7030	82			
1709627-11 ✓	Hg-CVAFS-T-7030	83			
1709627-12 ✓	Hg-CVAFS-T-7030	84			
1709627-13 ✓	Hg-CVAFS-T-7030	85			
1709627-14 ✓	Hg-CVAFS-T-7030	86			
1709627-15 ✓	Hg-CVAFS-T-7030	87			
1709627-16 ✓	Hg-CVAFS-T-7030	88			
1709627-17 ✓	Hg-CVAFS-T-7030	89			
1709627-18 ✓	Hg-CVAFS-T-7030	90			
1709627-01RE1 ✓	Hg-CVAFS-T-7030	91			Added 10/20/2017 by DM2
7J20014-CCV7 ✓	QC	92	1705628	✓	
7J20014-CCB7 ✓	QC	93			
1709627-02RE1 ✓	Hg-CVAFS-T-7030	94			Added 10/20/2017 by DM2
1709627-05RE1 ✓	Hg-CVAFS-T-7030	95			Added 10/20/2017 by DM2
1709627-06RE1 ✓	Hg-CVAFS-T-7030	96			Added 10/20/2017 by DM2
1709627-09RE1 ✓	Hg-CVAFS-T-7030	97			Added 10/20/2017 by DM2
F710262-DUP1 ✓	QC	98			
F710262-MS1 ✓	QC	99			
F710262-MSD1 ✓	QC	100			
F710262-MS2 ✓	QC	101			
F710262-MSD2 ✓	QC	102			
7J20014-CCV8 ✓	QC	103	1705628	✓	
7J20014-CCB8 ✓	QC	104			

ANALYSIS SEQUENCE

7J20014

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Dan Mattem 10/19/17
Samples Loaded By Date

Dan Mattem 10/20/17
Data Processed By Date

PREPARATION BENCH SHEET

F710387

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/17/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710387-BLK1	Blank	0.25	20					
F710387-BLK2	Blank	0.25	20					
F710387-BLK3	Blank	0.25	20					
F710387-BS1	LCS	0.25	20	1704421	20			
F710387-BS2	DORM4	0.1253	20	1705412	125.3			
F710387-BSD1	LCS Dup	0.25	20	1704421	20			
F710387-DUP1	Duplicate [1709628-15]	0.2815	20					
F710387-MS1	Matrix Spike [1709628-15]	0.2626	20	1705554	100			
F710387-MSD1	Matrix Spike Dup [1709628-15]	0.2604	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1706064	70/30 Digestion Acid	09-Apr-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00
			1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

PREPARATION BENCH SHEET

F710387

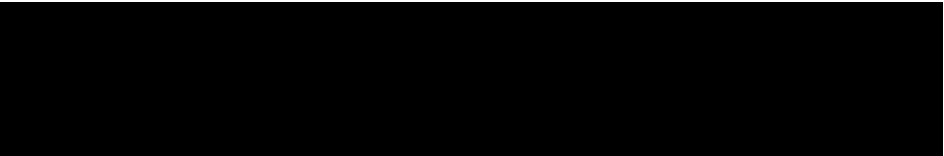
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/17/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709628-15	ES-03_17HC001_091917_BLM_15_WB	0.2873	20	-	-	-		
1709628-16RE1	ES-03_17HC001_091917_BLM_16_WB	0.2734	20	-	-	-	Redigest for confirmation. PL 10/16/17	
1709628-18RE1	ES-03_17HC001_091917_BLM_18_WB	0.2815	20	-	-	-	Redigest for confirmation. PL 10/16/17	



PREPARATION BENCH SHEET

2000-2
10/19/17 DM

F710387

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/17/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710387-BLK1	Blank	0.25	20					20X
F710387-BLK2	Blank	0.25	20					20X
F710387-BLK3	Blank	0.25	20					20X
F710387-BS1	LCS	0.25	20	1704421	20			20X
F710387-BS2	DORM4	0.1253	20	1705412	125.3			400X
F710387-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710387-DUP1	Duplicate [1709628-15]	0.2815	20					100X
F710387-MS1	Matrix Spike [1709628-15]	0.2626	20	1705554	100			400X
F710387-MSD1	Matrix Spike Dup [1709628-15]	0.2604	20	1705554	100			400X

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1705412	DORM-4	06-Jan-20 00:00	1706064	70/30 Digestion Acid	09-Apr-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706079	5% BrCl	14-Mar-18 00:00

1703152
1705610
1705611
1706142

PREPARATION BENCH SHEET

200-2
10/19/17 DM

F710387

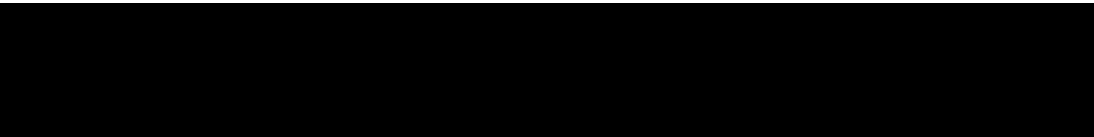
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/17/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709628-15	ES-03_17HC001_091917_BLM_15_WB	0.2873	20	-	-	-		100X -
1709628-16RE1	ES-03_17HC001_091917_BLM_16_WB	0.2734	20	-	-	-	Redigest for confirmation. PL 10/16/17	100X -
1709628-18RE1	ES-03_17HC001_091917_BLM_18_WB	0.2815	20	-	-	-	Redigest for confirmation. PL 10/16/17	100X -



Technician: CWF Batch#: F710387 Date: 10/17/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: 14545 Calibrated? Yes No

*Time in: 12:50 Actual Temp. (raw): 77.0 °C w/ CF: 77.1 °C
 Time out: 14:50 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1706079) Spike vol.: 100 ^{ms/msd} µL (LIMS ID: 1705554)
 Spike Witness: DM 10/17/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: mm619 Calibration Date: 10/17/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1706064 Dispenser #: 1913117 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406603 IF Yes
 Glass Vial # 00068124 Boiling Chip lot # 1704424 *Hotblock Position: A5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710387 - BLK1	0.2748	23			BS2 = 800µL BSMS: 1705412
2	F710387 - BLK2	0.2687	24			
3	F710387 - BLK3	0.2707	25			Comments
4	F710387 - BS1	0.2681	26			
5	F710387 - BS01	0.2577	27			BS/BS01 spiked with 20µL of
6	F710387 - BS2	0.1253	28			1704421
7	1709628 - 15	0.2873	29			DUP1 MS1 /MS01
8	F710387 - DUP1	0.2815	30			BSMS: 1709628-15
9	F710387 - MS1	0.2626	31			Are Post blanks for 1709628 are in batch F710289
10	F710387 - MS01	0.2604	32			CWF 10/17/17
11	1709628 - 16 RE1	0.2734	33			
12	1709628 - 17 RE1	0.2815	34			
13	1709628 - 18 RE1	CWF 10/17/17	35			
14			36			
15			37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

PREPARATION BENCH SHEET

F710260

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710260-BLK1	Blank	0.25	20					
F710260-BLK2	Blank	0.25	20					
F710260-BLK3	Blank	0.25	20					
F710260-BS1	LCS	0.25	20	1704421	20			
F710260-BS2	DORM4	0.1277	20	1705412	127.7			
F710260-BSD1	LCS Dup	0.25	20	1704421	20			
F710260-DUP1	Duplicate [1709626-18]	0.288	20					
F710260-MS1	Matrix Spike [1709626-18]	0.26	20	1705554	100			
F710260-MS2	Matrix Spike [1709626-04]	0.267	20	1705554	100			
F710260-MSD1	Matrix Spike Dup [1709626-18]	0.277	20	1705554	100			
F710260-MSD2	Matrix Spike Dup [1709626-04]	0.267	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705927	70/30 Digestion Acid	02-Apr-18 00:00
			1705959	5% BrCl	22-Jan-18 00:00
			1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

PREPARATION BENCH SHEET

F710260

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709624-01	OB-05_17SN001_091517_RAS_01_WB	0.251	20	-	-	-		
1709624-02	OB-05_17SN001_091517_RAS_02_WB	0.252	20	QC	-	-	MS/MSD	
1709624-03	OB-05_17SN001_091517_RAS_03_WB	0.251	20	-	-	-	2nd fish from 1709624-01	
1709624-04	OB-05_17SN001_091517_RAS_04_WB	0.253	20	-	-	-	2nd fish from 1709624-02	
1709624-05	OB-05_17SN001_091517_RAS_05_WB	0.259	20	-	-	-	3rd fish from 1709624-02	
1709626-04	OB-01_17SN001_091617_RAS_04_WB	0.265	20	-	-	-		
1709626-05	OB-01_17SN001_091617_RAS_05_WB	0.277	20	-	-	-		
1709626-06	OB-01_17SN001_091617_RAS_06_WB	0.258	20	-	-	-		
1709626-07	OB-01_17SN001_091617_RAS_07_WB	0.281	20	-	-	-		
1709626-08	OB-01_17SN001_091617_RAS_08_WB	0.266	20	-	-	-		
1709626-09	OB-01_17SN001_091617_RAS_09_WB	0.266	20	-	-	-		
1709626-10	OB-01_17SN001_091617_RAS_10_WB	0.279	20	-	-	-		
1709626-11	OB-01_17SN001_091617_RAS_11_WB	0.275	20	-	-	-		
1709626-12	OB-01_17SN001_091617_RAS_12_WB	0.27	20	-	-	-		
1709626-13	OB-01_17SN001_091617_RAS_13_WB	0.273	20	-	-	-		
1709626-14	OB-01_17SN001_091617_RAS_14_WB	0.272	20	-	-	-		
1709626-15	OB-01_17SN001_091617_RAS_15_WB	0.262	20	-	-	-		
1709626-16	OB-01_17SN001_091617_RAS_16_WB	0.281	20	-	-	-		
1709626-17	OB-01_17SN001_091617_RAS_17_WB	0.27	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710260

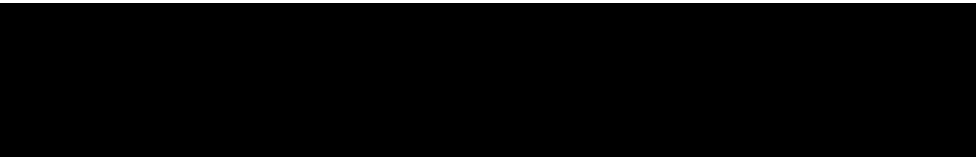
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

1709626-18	OB-01_17SN001_091617_RAS_18_WB	0.285	20	-	-	-		
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PREPARATION BENCH SHEET

2600-2
10/19/17 DM

F710260

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710260-BLK1	Blank	0.25	20					20X -
F710260-BLK2	Blank	0.25	20					20X -
F710260-BLK3	Blank	0.25	20					20X -
F710260-BS1	LCS	0.25	20	1704421	20			20X -
F710260-BS2	DORM4	0.1277	20	1705412	127.7			400X -
F710260-BSD1	LCS Dup	0.25	20	1704421	20			20X -
F710260-DUP1	Duplicate [1709626-18]	0.288	20					100X -
F710260-MS1	Matrix Spike [1709626-18]	0.26	20	1705554	100			400X -
F710260-MS2	Matrix Spike [1709626-04]	0.267	20	1705554	100			400X -
F710260-MSD1	Matrix Spike Dup [1709626-18]	0.277	20	1705554	100			400X -
F710260-MSD2	Matrix Spike Dup [1709626-04]	0.267	20	1705554	100			400X -

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705927	70/30 Digestion Acid	02-Apr-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705959	5% BrCl	22-Jan-18 00:00

1703182
1705610
1705611
1706142

PREPARATION BENCH SHEET

200-2
10/19/17 DM

F710260

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709624-01	OB-05_17SN001_091517_RAS_01_WB	0.251	20	-	-	-		100X -
1709624-02	OB-05_17SN001_091517_RAS_02_WB	0.252	20	QC	-	-	MS/MSD	100X -
1709624-03	OB-05_17SN001_091517_RAS_03_WB	0.251	20	-	-	-	2nd fish from 1709624-01	100X -
1709624-04	OB-05_17SN001_091517_RAS_04_WB	0.253	20	-	-	-	2nd fish from 1709624-02	100X -
1709624-05	OB-05_17SN001_091517_RAS_05_WB	0.259	20	-	-	-	3rd fish from 1709624-02	100X -
1709626-04	OB-01_17SN001_091617_RAS_04_WB	0.265	20	-	-	-		100X -
1709626-05	OB-01_17SN001_091617_RAS_05_WB	0.277	20	-	-	-		100X -
1709626-06	OB-01_17SN001_091617_RAS_06_WB	0.258	20	-	-	-		100X -
1709626-07	OB-01_17SN001_091617_RAS_07_WB	0.281	20	-	-	-		100X -
1709626-08	OB-01_17SN001_091617_RAS_08_WB	0.266	20	-	-	-		100X -
1709626-09	OB-01_17SN001_091617_RAS_09_WB	0.266	20	-	-	-		100X -
1709626-10	OB-01_17SN001_091617_RAS_10_WB	0.279	20	-	-	-		100X -
1709626-11	OB-01_17SN001_091617_RAS_11_WB	0.275	20	-	-	-		100X -
1709626-12	OB-01_17SN001_091617_RAS_12_WB	0.27	20	-	-	-		100X -
1709626-13	OB-01_17SN001_091617_RAS_13_WB	0.273	20	-	-	-		100X -
1709626-14	OB-01_17SN001_091617_RAS_14_WB	0.272	20	-	-	-		100X -
1709626-15	OB-01_17SN001_091617_RAS_15_WB	0.262	20	-	-	-		100X -
1709626-16	OB-01_17SN001_091617_RAS_16_WB	0.281	20	-	-	-		100X -
1709626-17	OB-01_17SN001_091617_RAS_17_WB	0.27	20	-	-	-		100X -

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

10/19/17 DM

F710260

Eurofins Frontier Global Sciences, Inc.

Prepared: 10/6/2017

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

1709626-18	OB-01_17SN001_091617_RAS_18_WB	0.285	20	-	-	-	100X
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Technician: WFP Batch#: F710260 Date: 10/9/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19 (DORM4) Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 13:40 Actual Temp. (raw): 70.1 °C w/ CF: 70.69.8°C w/F 10/16/17
 Time out: 15:40 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C

*Time in can't begin before target temperature is reached
 Final vol.: 20 mL (LIMS ID: 1705959) Spike vol.: 100 µL (LIMS ID: 1705954)
 Spike Witness: DM 10/10/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0107852 Calibration Date: 10/9/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705927 Dispenser #: 0262749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: A8

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710260 - Blk1	0.275	23	1709626 - 10	0.279	BS2 = DORM4
2	F710260 - Blk2	0.292	24	1709626 - 11	0.275	LIMS: 1705412
3	F710260 - Blk3	0.275	25	1709626 - 12	0.270	Balance: 1.9
4	F710260 - BS1	0.255	26	1709626 - 13	0.273	Comments
5	F710260 - BSD1	0.286	27	1709626 - 14	0.272	
6	F710260 - BS2	0.1277	28	1709626 - 15	0.262	BS1/BSD1 spiked with 20 µL of 1704021
7	1709624 - 01	0.251	29	1709626 - 16	0.281	DUP1/MS1/MSD1
8	1709624 - 02	0.252	30	1709626 - 17	0.270	Source: 1709624-02
9	F710260 - DUP1	w/F 10/9/17	31	1709626 - 18	0.285	MS2/MSD2
10	MS1	w/F 10/9/17	32	F710260 - DUP1	0.288	Source: 1709626-04
11	MSD1	w/F 10/9/17	33	F710260 - MS1	0.260	Pre/Post blanks for 1709624, 1709626 are in batch F710250
12	1709624 - 03	0.251	34	F710260 - MSD1	0.277	*Not enough sample for required QC of 1709624-02 w/F 10/9/17
13	1709624 - 04	0.253	35			
14	1709624 - 05	0.259	36			
15	1709626 - 04	0.265	37			
16	F710260 - MS2	0.267	38			
17	F710260 - MSD2	0.267	39			
18	1709626 - 05	0.277	40			
19	1709626 - 06	0.258	41			
20	1709626 - 07	0.281	42			
21	1709626 - 08	0.266	43			
22	1709626 - 09	0.266	44			

PREPARATION BENCH SHEET

F710262

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710262-BLK1	Blank	0.25	20					
F710262-BLK2	Blank	0.25	20					
F710262-BLK3	Blank	0.25	20					
F710262-BS1	LCS	0.25	20	1704421	20			
F710262-BS2	DORM4	0.1275	20	1705412	127.5			
F710262-BSD1	LCS Dup	0.25	20	1704421	20			
F710262-DUP1	Duplicate [1709626-19]	0.291	20					
F710262-MS1	Matrix Spike [1709626-19]	0.279	20	1705554	100			
F710262-MS2	Matrix Spike [1709627-01RE1]	0.28	20	1705554	100			
F710262-MSD1	Matrix Spike Dup [1709626-19]	0.281	20	1705554	100			
F710262-MSD2	Matrix Spike Dup [1709627-01RE1]	0.256	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705927	70/30 Digestion Acid	02-Apr-18 00:00
			1705959	5% BrCl	22-Jan-18 00:00
			1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

PREPARATION BENCH SHEET

F710262

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709626-19	OB-01_17SN001_091617_RAS_19_WB	0.281	20	-	-	-		
1709626-20	OB-01_17SN001_091617_RAS_20_WB	0.286	20	-	-	-		
1709627-01	FRB-01_17HC001_091317_BLM_01_WB	0.292	20	QC	-	-	MS/MSD	
1709627-01RE1	FRB-01_17HC001_091317_BLM_01_WB	0.292	20	QC	-	-	MS/MSD Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709627-02	FRB-01_17HC001_091317_BLM_02_WB	0.261	20	-	-	-		
1709627-02RE1	FRB-01_17HC001_091317_BLM_02_WB	0.261	20	-	-	-	Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709627-03	FRB-01_17HC001_091317_BLM_03_WB	0.255	20	-	-	-		
1709627-04	FRB-01_17HC001_091317_BLM_04_WB	0.276	20	-	-	-		
1709627-05	FRB-01_17HC001_091317_BLM_05_WB	0.273	20	-	-	-		
1709627-05RE1	FRB-01_17HC001_091317_BLM_05_WB	0.273	20	-	-	-	Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709627-06	FRB-01_17HC001_091317_BLM_06_WB	0.286	20	-	-	-		
1709627-06RE1	FRB-01_17HC001_091317_BLM_06_WB	0.286	20	-	-	-	Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709627-07	FRB-01_17HC001_091317_BLM_07_WB	0.251	20	-	-	-		
1709627-08	FRB-01_17HC001_091317_BLM_08_WB	0.272	20	-	-	-		
1709627-09	FRB-01_17HC001_091317_BLM_09_WB	0.252	20	-	-	-		
1709627-09RE1	FRB-01_17HC001_091317_BLM_09_WB	0.252	20	-	-	-	Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709627-10	FRB-01_17HC001_091317_BLM_10_WB	0.265	20	-	-	-		
1709627-11	FRB-01_17HC001_091317_BLM_11_WB	0.282	20	-	-	-		
1709627-12	FRB-01_17HC001_091317_BLM_12_WB	0.258	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710262

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

1709627-13	FRB-01_17HC001_091317_BLM_13_WB	0.26	20	-	-	-		
1709627-14	FRB-01_17HC001_091317_BLM_14_WB	0.271	20	-	-	-		
1709627-15	FRB-01_17HC001_091317_BLM_15_WB	0.271	20	-	-	-		
1709627-16	FRB-01_17HC001_091317_BLM_16_WB	0.283	20	-	-	-		
1709627-17	FRB-01_17HC001_091317_BLM_17_WB	0.258	20	-	-	-		
1709627-18	FRB-01_17HC001_091317_BLM_18_WB	0.259	20	-	-	-		



PREPARATION BENCH SHEET

2600-2
10/19/17 JDM

F710262

Eurofins Frontier Global Sciences, Inc.

Prepared: 10/6/2017

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710262-BLK1	Blank	0.25	20					20X -
F710262-BLK2	Blank	0.25	20					20X -
F710262-BLK3	Blank	0.25	20					20X -
F710262-BS1	LCS	0.25	20	1704421				20X -
F710262-BS2	DORM4	0.1275	20	1705412	127.5			400X -
F710262-BSD1	LCS Dup	0.25	20	1704421				20X -
F710262-DUP1	Duplicate [1709626-19]	0.291	20					100X -
F710262-MS1	Matrix Spike [1709626-19]	0.279	20	1705554	100			400X -
F710262-MS2	Matrix Spike [1709627-01] REI	0.28	20	1705554	100			400X -
F710262-MSD1	Matrix Spike Dup [1709626-19]	0.281	20	1705554	100			400X -
F710262-MSD2	Matrix Spike Dup [1709627-01] REI	0.256	20	1705554	100			400X -

Standard ID(s):	Description:
1704421	THg 100ng/mL Primary Spiking Standard
1705412	DORM-4
1705554	THg 1,000ng/mL Secondary Spiking Standard

Expiration:
21-Oct-17 00:00
06-Jan-20 00:00
18-Mar-18 00:00

Reagent ID(s):	Description:
1702551	Boiling Chips for AFS prep
1705927	70/30 Digestion Acid
1705959	5% BrCl

Expiration:
31-Dec-17 00:00
02-Apr-18 00:00
22-Jan-18 00:00

1703182
1705410
1705611
1706142

PREPARATION BENCH SHEET

F710262

Eurofins Frontier Global Sciences, Inc.

2600-2
10/19/17 DM

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

Matrix: Tissue

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709626-19	OB-01_17SN001_091617_RAS_19_WB	0.281	20	-	-	-		100X
1709626-20	OB-01_17SN001_091617_RAS_20_WB	0.286	20	-	-	-		100X
1709627-01	FRB-01_17HC001_091317_BLM_01_WB	0.292	20	QC	-	-	MS/MSD	100X → 20X
1709627-02	FRB-01_17HC001_091317_BLM_02_WB	0.261	20	-	-	-		100X → 20X
1709627-03	FRB-01_17HC001_091317_BLM_03_WB	0.255	20	-	-	-		100X
1709627-04	FRB-01_17HC001_091317_BLM_04_WB	0.276	20	-	-	-		100X
1709627-05	FRB-01_17HC001_091317_BLM_05_WB	0.273	20	-	-	-		100X → 20X
1709627-06	FRB-01_17HC001_091317_BLM_06_WB	0.286	20	-	-	-		100X → 20X
1709627-07	FRB-01_17HC001_091317_BLM_07_WB	0.251	20	-	-	-		100X
1709627-08	FRB-01_17HC001_091317_BLM_08_WB	0.272	20	-	-	-		100X
1709627-09	FRB-01_17HC001_091317_BLM_09_WB	0.252	20	-	-	-		100X → 20X
1709627-10	FRB-01_17HC001_091317_BLM_10_WB	0.265	20	-	-	-		20X
1709627-11	FRB-01_17HC001_091317_BLM_11_WB	0.282	20	-	-	-		20X
1709627-12	FRB-01_17HC001_091317_BLM_12_WB	0.258	20	-	-	-		20X
1709627-13	FRB-01_17HC001_091317_BLM_13_WB	0.26	20	-	-	-		20X
1709627-14	FRB-01_17HC001_091317_BLM_14_WB	0.271	20	-	-	-		20X
1709627-15	FRB-01_17HC001_091317_BLM_15_WB	0.271	20	-	-	-		20X
1709627-16	FRB-01_17HC001_091317_BLM_16_WB	0.283	20	-	-	-		20X
1709627-17	FRB-01_17HC001_091317_BLM_17_WB	0.258	20	-	-	-		20X

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2000-2
10/19/17 DM

F710262

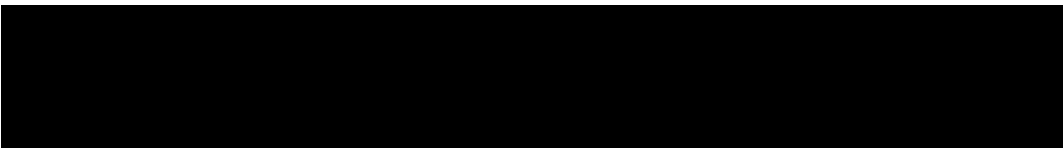
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

1709627-18	FRB-01_17HC001_091317_BLM_18_WB	0.259	20	-	-	-	20X
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Technician: CWF Batch#: F710262 Date: 10/9/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19(DORMY) Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 3:40 Actual Temp. (raw): 70.1 °C w/ CF: 69.8 °C
 Time out: 5:40 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705959) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: DM 10/10/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0007852 Calibration Date: 10/9/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705927 Dispenser #: 0212749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: A8

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710262 - BLU1	0.257	23	1709627 - 10	0.265	BS2 = DORMY LIMS: 1705912 Balance: 1g
2	F710262 - BLU2	0.281	24	1709627 - 11	0.282	
3	F710262 - BLU3	0.262	25	1709627 - 12	0.258	
4	F710262 - BSL	0.268	26	1709627 - 13	0.260	Comments
5	F710262 - BSD1	0.271	27	1709627 - 14	0.271	
6	F710262 - BS2	0.1275	28	1709627 - 15	0.271	BS1/BS2 spiked with 20µL of 1704421 DUP1/MS1/MSD1 source: 1709616-19
7	1709626 - 19	0.281	29	1709627 - 16	0.283	
8	F710262 - DUP1	0.291	30	1709627 - 17	0.258	MS2/MSD2 source: 1709627-01
9	F710262 - MS1	0.279	31	1709627 - 18	0.259	
10	F710262 - MSD1	0.281	32			<div style="border: 1px solid black; width: 100%; height: 100%; display: flex; align-items: center; justify-content: center;"> <div style="text-align: center;"> <p>CWF</p> <p>10/9/17</p> </div> </div>
11	1709626 - 20	0.286	33			
12	1709627 - 01	0.292	34			
13	F710262 - MS2	0.280	35			
14	F710262 - MSD2	0.256	36			
15	1709627 - 02	0.261	37			
16	1709627 - 03	0.255	38			
17	1709627 - 04	0.276	39			
18	1709627 - 05	0.273	40			
19	1709627 - 06	0.286	41			
20	1709627 - 07	0.251	42			
21	1709627 - 08	0.272	43			
22	1709627 - 09	0.252	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J20014, 7J20015
Reviewer: 0 <i>RM 10/20/17</i>	Dataset ID(s): THG26002-171019-1
Date: 10/20/2017	WO (s) #: VARIOUS
Batch #(s): F710262, F710405, F710260, F710387	0

Analyst Initials DM **Reviewer Initials** RM 10/20/17

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: F710387-DUP1 FAILED. HIGH RPD
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: _____
- (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
- (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
- (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J20014, 7J20015
Reviewer: 0 <i>DM 10/20/17</i>	Dataset ID(s): THG26002-171019-1
Date: 10/20/2017	WO (s) #: VARIOUS
Batch #(s): F710262, F710405, F710260, F710387	0

Analyst Initials DM **Reviewer Initials** DM 10/20/17

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 11/23/16, 12/1/16 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2016 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 7/28/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 7/28/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.



Frontier Global Sciences

THg26002-171018-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 18, 2017
Instrument #: Hg2600-2
LIMS Sequence #: 7J19011

Analyst: DM2
Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	106.39 units	212.79	95.38 units	190.76	103.7 %Rec
SEQ-CAL2	1	1.00 ng/L	200.22 units	200.22	189.21 units	189.21	102.8 %Rec
SEQ-CAL3	1	5.00 ng/L	930.46 units	186.09	919.45 units	183.89	99.9 %Rec
SEQ-CAL4	1	20.00 ng/L	3604.84 units	180.24	3593.83 units	179.69	97.7 %Rec
SEQ-CAL5	1	40.00 ng/L	7065.80 units	176.65	7054.79 units	176.37	95.9 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
183.99	+/- 6.12	3.3% RSD	191.20

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	11.01 units	±1.83	0.06 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.341 ng/L	±0.632
BLK	2	3	2.247 ng/L	±1.205
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER-REVIEWED
 INITIALS: BC 10/19/17

Instrument	Sample			Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
	Analyst	Type	LabNumber												
Hg2600-2	DM2	CAL	SEQ-IBL1	1	10/18/2017 10:25:31	87582-1.RAW	10:25:31 AM	12.10			1.1	0.006	0.006	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	10/18/2017 10:29:39	87583-1.RAW	10:29:39 AM	12.03			1.0	0.006	0.006	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	10/18/2017 10:33:47	87584-1.RAW	10:33:47 AM	8.90			-2.1	-0.011	-0.011	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	10/18/2017 10:37:56	87585-1.RAW	10:37:56 AM	106.39			95.4	0.518	0.518	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	10/18/2017 10:42:04	87586-1.RAW	10:42:04 AM	200.22			189.2	1.028	1.028	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	10/18/2017 10:46:13	87587-1.RAW	10:46:13 AM	930.46			919.5	4.997	4.997	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	10/18/2017 10:50:21	87588-1.RAW	10:50:21 AM	3604.84			3593.8	19.533	19.533	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	10/18/2017 10:54:30	87589-1.RAW	10:54:30 AM	7065.80			7054.8	38.344	38.344	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	10/18/2017 10:58:38	87590-1.RAW	10:58:38 AM	947.05			936.0	5.088	5.088	ng/L	
Hg2600-2	DM2	BLK	F710289-BLK1	20	10/18/2017 11:02:47	87591-1.RAW	11:02:47 AM	29.93	1		18.9	0.103	2.057	ng/L	
Hg2600-2	DM2	BLK	F710289-BLK2	20	10/18/2017 11:06:55	87592-1.RAW	11:06:55 AM	21.19	1		10.2	0.055	1.107	ng/L	
Hg2600-2	DM2	BLK	F710289-BLK3	20	10/18/2017 11:11:03	87593-1.RAW	11:11:03 AM	18.92	1		7.9	0.043	0.860	ng/L	
Hg2600-2	DM2	SAM	*F710289-BLK4	20	10/18/2017 11:15:12	87594-1.RAW	11:15:12 AM	19.30	1		8.3	-0.022	-0.440	ng/L	
Hg2600-2	DM2	SAM	*F710289-BLK5	20	10/18/2017 11:19:20	87595-1.RAW	11:19:20 AM	18.60	1		7.6	-0.026	-0.516	ng/L	
Hg2600-2	DM2	SAM	*F710289-BLK6	20	10/18/2017 11:23:29	87596-1.RAW	11:23:29 AM	14.45	1		3.4	-0.048	-0.967	ng/L	
Hg2600-2	DM2	SAM	*F710289-BLK7	20	10/18/2017 11:27:37	87597-1.RAW	11:27:37 AM	15.07	1		4.1	-0.045	-0.900	ng/L	
Hg2600-2	DM2	SAM	F710289-BS1	20	10/18/2017 11:31:46	87598-1.RAW	11:31:46 AM	939.34	1		928.3	4.979	99.573	ng/L	
Hg2600-2	DM2	SAM	F710289-BS1	20	10/18/2017 11:35:54	87599-1.RAW	11:35:54 AM	943.91	1		932.9	5.003	100.070	ng/L	
Hg2600-2	DM2	SAM	F710289-BS2	400	10/18/2017 11:40:03	87600-1.RAW	11:40:03 AM	948.71	1		937.7	5.093	2037.305	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	10/18/2017 11:44:11	87601-1.RAW	11:44:11 AM	894.56			883.5	4.802	4.802	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	10/18/2017 11:48:19	87602-1.RAW	11:48:19 AM	18.46			7.4	0.040	0.040	ng/L	
Hg2600-2	DM2	SAM	1709627-19	100	10/18/2017 11:52:28	87603-1.RAW	11:52:28 AM	196.30	1		185.3	0.994	99.369	ng/L	
Hg2600-2	DM2	SAM	1709627-20	100	10/18/2017 11:56:36	87604-1.RAW	11:56:36 AM	184.03	1		173.0	0.927	92.700	ng/L	
Hg2600-2	DM2	SAM	1709628-01	100	10/18/2017 12:00:45	87605-1.RAW	12:00:45 PM	1870.25	1		1859.2	10.092	1009.194	ng/L	
Hg2600-2	DM2	SAM	1709628-02	100	10/18/2017 12:04:53	87606-1.RAW	12:04:53 PM	2781.65	1		2770.6	15.046	1504.564	ng/L	
Hg2600-2	DM2	SAM	1709628-03	100	10/18/2017 12:09:02	87607-1.RAW	12:09:02 PM	2703.17	1		2692.2	14.619	1461.907	ng/L	
Hg2600-2	DM2	SAM	1709628-04	100	10/18/2017 12:13:10	87608-1.RAW	12:13:10 PM	2895.15	1		2884.1	15.663	1566.254	ng/L	
Hg2600-2	DM2	SAM	1709628-05	100	10/18/2017 12:17:19	87609-1.RAW	12:17:19 PM	2321.52	1		2310.5	12.545	1254.469	ng/L	
Hg2600-2	DM2	SAM	1709628-06	100	10/18/2017 12:21:27	87610-1.RAW	12:21:27 PM	1644.53	1		1633.5	8.865	886.512	ng/L	
Hg2600-2	DM2	SAM	1709628-07	100	10/18/2017 12:25:35	87611-1.RAW	12:25:35 PM	2485.82	1		2474.8	13.438	1343.774	ng/L	
Hg2600-2	DM2	SAM	1709628-08	100	10/18/2017 12:29:44	87612-1.RAW	12:29:44 PM	2620.92	1		2609.9	14.172	1417.199	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	10/18/2017 12:33:52	87613-1.RAW	12:33:52 PM	915.74			904.7	4.917	4.917	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	10/18/2017 12:38:01	87614-1.RAW	12:38:01 PM	32.72			21.7	0.118	0.118	ng/L	
Hg2600-2	DM2	SAM	1709627-19RE1	20	10/18/2017 12:42:09	87615-1.RAW	12:42:09 PM	931.62	1		920.6	4.937	98.733	ng/L	
Hg2600-2	DM2	SAM	1709627-20RE1	20	10/18/2017 12:46:18	87616-1.RAW	12:46:18 PM	839.79	1		828.8	4.438	88.751	ng/L	
Hg2600-2	DM2	SAM	1709628-09	100	10/18/2017 12:50:26	87617-1.RAW	12:50:26 PM	2679.55	1		2668.5	14.491	1449.067	ng/L	
Hg2600-2	DM2	SAM	1709628-10	100	10/18/2017 12:54:35	87618-1.RAW	12:54:35 PM	2351.94	1		2340.9	12.710	1271.005	ng/L	
Hg2600-2	DM2	SAM	1709628-11	100	10/18/2017 12:58:43	87619-1.RAW	12:58:43 PM	4250.83	1		4239.8	23.031	2303.092	ng/L	
Hg2600-2	DM2	SAM	1709628-12	100	10/18/2017 13:02:51	87620-1.RAW	1:02:51 PM	2203.43	1		2192.4	11.903	1190.285	ng/L	
Hg2600-2	DM2	SAM	1709628-13	100	10/18/2017 13:07:00	87621-1.RAW	1:07:00 PM	1856.08	1		1845.1	10.015	1001.492	ng/L	
Hg2600-2	DM2	SAM	1709628-14	100	10/18/2017 13:11:08	87622-1.RAW	1:11:08 PM	2150.55	1		2139.5	11.615	1161.547	ng/L	
Hg2600-2	DM2	SAM	1709628-16	100	10/18/2017 13:15:17	87623-1.RAW	1:15:17 PM	5089.43	1		5078.4	27.589	2758.888	ng/L	
Hg2600-2	DM2	SAM	1709628-18	100	10/18/2017 13:19:25	87624-1.RAW	1:19:25 PM	2034.26	1		2023.2	10.983	1098.337	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	10/18/2017 13:23:34	87625-1.RAW	1:23:34 PM	950.96			939.9	5.109	5.109	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	10/18/2017 13:27:42	87626-1.RAW	1:27:42 PM	30.14			19.1	0.104	0.104	ng/L	
Hg2600-2	DM2	SAM	F710289-DUP1	20	10/18/2017 13:31:50	87627-1.RAW	1:31:50 PM	990.09	1		979.1	5.254	105.089	ng/L	
Hg2600-2	DM2	SAM	F710289-MS1	400	10/18/2017 13:35:59	87628-1.RAW	1:35:59 PM	2165.49	1		2154.5	11.707	4682.689	ng/L	
Hg2600-2	DM2	SAM	F710289-MSD1	400	10/18/2017 13:40:07	87629-1.RAW	1:40:07 PM	2044.29	1		2033.3	11.048	4419.182	ng/L	
Hg2600-2	DM2	SAM	F710289-MS2	400	10/18/2017 13:44:16	87630-1.RAW	1:44:16 PM	2653.93	1		2642.9	14.362	5744.602	ng/L	
Hg2600-2	DM2	SAM	F710289-MSD2	400	10/18/2017 13:48:24	87631-1.RAW	1:48:24 PM	2489.50	1		2478.5	13.468	5387.103	ng/L	
Hg2600-2	DM2	BLK	F710290-BLK1	20	10/18/2017 13:52:33	87632-1.RAW	1:52:33 PM	44.45	2		33.4	0.182	3.635	ng/L	
Hg2600-2	DM2	BLK	F710290-BLK2	20	10/18/2017 13:56:41	87633-1.RAW	1:56:41 PM	26.07	2		15.1	0.082	1.637	ng/L	
Hg2600-2	DM2	BLK	F710290-BLK3	20	10/18/2017 14:00:50	87634-1.RAW	2:00:50 PM	24.53	2		13.5	0.073	1.470	ng/L	
Hg2600-2	DM2	SAM	*F710290-BLK4	20	10/18/2017 14:04:58	87635-1.RAW	2:04:58 PM	24.64	2		13.6	-0.038	-0.766	ng/L	
Hg2600-2	DM2	SAM	*F710290-BLK5	20	10/18/2017 14:09:07	87636-1.RAW	2:09:07 PM	27.39	2		16.4	-0.023	-0.467	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	10/18/2017 14:13:15	87637-1.RAW	2:13:15 PM	917.23			906.2	4.926	4.926	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	10/18/2017 14:17:23	87638-1.RAW	2:17:23 PM	19.60			8.6	0.047	0.047	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-2	DM2	SAM	F710290-BS1	20	10/18/2017 14:21:32	87639-1.RAW	2:21:32 PM	987.19	2		976.2	5.193	103.868	ng/L	
Hg2600-2	DM2	SAM	F710290-BSD1	20	10/18/2017 14:25:40	87640-1.RAW	2:25:40 PM	959.39	2		948.4	5.042	100.846	ng/L	
Hg2600-2	DM2	SAM	F710290-BS2	400	10/18/2017 14:29:49	87641-1.RAW	2:29:49 PM	978.66	2		967.6	5.254	2101.506	ng/L	
Hg2600-2	DM2	SAM	1709628-19	100	10/18/2017 14:33:57	87642-1.RAW	2:33:57 PM	2145.19	2		2134.2	11.577	1157.724	ng/L	
Hg2600-2	DM2	SAM	1709628-20	100	10/18/2017 14:38:06	87643-1.RAW	2:38:06 PM	1892.34	2		1881.3	10.203	1020.296	ng/L	
Hg2600-2	DM2	SAM	1709629-01	100	10/18/2017 14:42:14	87644-1.RAW	2:42:14 PM	1268.29	2		1257.3	6.811	681.110	ng/L	
Hg2600-2	DM2	SAM	1709629-02	100	10/18/2017 14:46:22	87645-1.RAW	2:46:22 PM	1404.87	2		1393.9	7.553	755.345	ng/L	
Hg2600-2	DM2	SAM	1709629-03	100	10/18/2017 14:50:31	87646-1.RAW	2:50:31 PM	2192.11	2		2181.1	11.832	1183.226	ng/L	
Hg2600-2	DM2	SAM	1709629-04	100	10/18/2017 14:54:39	87647-1.RAW	2:54:39 PM	2752.51	2		2741.5	14.878	1487.816	ng/L	
Hg2600-2	DM2	SAM	1709629-05	100	10/18/2017 14:58:48	87648-1.RAW	2:58:48 PM	1323.04	2		1312.0	7.109	710.868	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	10/18/2017 15:02:56	87649-1.RAW	3:02:56 PM	927.0553255			916.0	4.979	4.979	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	10/18/2017 15:07:05	87650-1.RAW	3:07:05 PM	24.22			13.2	0.072	0.072	ng/L	
Hg2600-2	DM2	SAM	1709629-06	100	10/18/2017 15:11:13	87651-1.RAW	3:11:13 PM	2721.72	2		2710.7	14.711	1471.081	ng/L	
Hg2600-2	DM2	SAM	1709629-07	100	10/18/2017 15:15:22	87652-1.RAW	3:15:22 PM	2964.81	2		2953.8	16.032	1603.207	ng/L	
Hg2600-2	DM2	SAM	1709629-08	100	10/18/2017 15:19:30	87653-1.RAW	3:19:30 PM	946.45	2		935.4	5.062	506.187	ng/L	
Hg2600-2	DM2	SAM	1709629-09	100	10/18/2017 15:23:38	87654-1.RAW	3:23:38 PM	1763.79	2		1752.8	9.504	950.425	ng/L	
Hg2600-2	DM2	SAM	1709629-10	100	10/18/2017 15:27:47	87655-1.RAW	3:27:47 PM	3279.27	2		3268.3	17.741	1774.120	ng/L	
Hg2600-2	DM2	SAM	1709629-11	100	10/18/2017 15:31:55	87656-1.RAW	3:31:55 PM	4435.34	2		4424.3	24.025	2402.471	ng/L	
Hg2600-2	DM2	SAM	1709629-12	100	10/18/2017 15:36:04	87657-1.RAW	3:36:04 PM	2417.28	2		2406.3	13.056	1305.613	ng/L	
Hg2600-2	DM2	SAM	1709629-13	100	10/18/2017 15:40:12	87658-1.RAW	3:40:12 PM	2039.83	2		2028.8	11.005	1100.463	ng/L	
Hg2600-2	DM2	SAM	1709629-14	100	10/18/2017 15:44:21	87659-1.RAW	3:44:21 PM	4696.18	2		4685.2	25.442	2544.246	ng/L	
Hg2600-2	DM2	SAM	1709629-15	100	10/18/2017 15:48:29	87660-1.RAW	3:48:29 PM	2867.19	2		2856.2	15.501	1550.150	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	10/18/2017 15:52:38	87661-1.RAW	3:52:38 PM	924.92			913.9	4.967	4.967	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	10/18/2017 15:56:46	87662-1.RAW	3:56:46 PM	31.96			20.9	0.114	0.114	ng/L	
Hg2600-2	DM2	SAM	1709629-16	100	10/18/2017 16:00:54	87663-1.RAW	4:00:54 PM	1347.99	2		1337.0	7.244	724.432	ng/L	
Hg2600-2	DM2	SAM	1709629-17	100	10/18/2017 16:05:03	87664-1.RAW	4:05:03 PM	2186.77	2		2175.8	11.803	1180.327	ng/L	
Hg2600-2	DM2	SAM	1709629-18	100	10/18/2017 16:09:11	87665-1.RAW	4:09:11 PM	2077.26	2		2066.2	11.208	1120.804	ng/L	
Hg2600-2	DM2	SAM	F710290-DUP1	100	10/18/2017 16:13:20	87666-1.RAW	4:13:20 PM	2283.24	2		2272.2	12.328	1232.762	ng/L	
Hg2600-2	DM2	SAM	F710290-MS1	400	10/18/2017 16:17:28	87667-1.RAW	4:17:28 PM	2697.84	2		2686.8	14.598	5839.148	ng/L	
Hg2600-2	DM2	SAM	F710290-MSD1	400	10/18/2017 16:21:37	87668-1.RAW	4:21:37 PM	2835.05	2		2824.0	15.344	6137.455	ng/L	
Hg2600-2	DM2	SAM	F710290-MS2	400	10/18/2017 16:25:45	87669-1.RAW	4:25:45 PM	2716.77	2		2705.8	14.701	5880.317	ng/L	
Hg2600-2	DM2	SAM	F710290-MSD2	400	10/18/2017 16:29:54	87670-1.RAW	4:29:54 PM	2658.53	2		2647.5	14.384	5753.691	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	10/18/2017 16:34:23	87671-1.RAW	4:34:23 PM	966.58			955.6	5.194	5.194	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	10/18/2017 16:38:31	87672-1.RAW	4:38:31 PM	43.50			32.5	0.177	0.177	ng/L	

TotalMercury EPA1631
 Operat DM
 BlankSi 11.01
 Calib Eqn: Conc = (Area-11.01
 Run Date: #####
 Blank SD: 1.827159273
 Worksh THg260(CalibFa 183.99
 Status: QC Warnings:5/QC E
 Run Time: 16:30:14
 Blank RSD%: 16.59493448
 Method ##### R: 1
 R2: 0.9999
 CF SD: 6.117588184
 CF RSD%: 3.325041618
 Descrip THg26002-171018-1

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	4.22					87578-1.RAW	10:08:57	776.68	Clean	OK	1
ws				11.01	0.13					87579-1.RAW	10:13:05	35.69	Sample	OK	1
ws				11.01	0.03					87580-1.RAW	10:17:14	17.15	Sample	OK	1
ws				11.01	0.01					87581-1.RAW	10:21:22	12.11	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.07					87582-1.RAW	10:25:31	12.10	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.07					87583-1.RAW	10:29:39	12.03	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					87584-1.RAW	10:33:47	8.90	Sample	OK	1
SEQ-CAL1	A4		1	11.01	0.52			103.68		87585-1.RAW	10:37:56	106.39	Sample	OK	1
SEQ-CAL2	A5		1	11.01	1.03			102.84		87586-1.RAW	10:42:04	200.22	Sample	OK	1
SEQ-CAL3	A6		1	11.01	5.00			99.95		87587-1.RAW	10:46:13	930.46	Sample	OK	1
SEQ-CAL4	A7		1	11.01	19.53			97.67		87588-1.RAW	10:50:21	3604.84	Sample	OK	1
SEQ-CAL5	A8		1	11.01	38.34			95.86		87589-1.RAW	10:54:30	7065.80	Sample	OK	1
SEQ-ICV1	A9		1	11.01	5.09			101.75		87590-1.RAW	10:58:38	947.05	Sample	OK	1
F710289-BLK1	A10		20	11.01	2.06					87591-1.RAW	11:02:47	29.93	Sample	OK	1
F710289-BLK2	A11		20	11.01	1.11					87592-1.RAW	11:06:55	21.19	Sample	OK	1
F710289-BLK3	A12		20	11.01	0.86					87593-1.RAW	11:11:03	18.92	Sample	OK	1
*F710289-BLK4	A13		20	11.01	0.90					87594-1.RAW	11:15:12	19.30	Sample	OK	1
*F710289-BLK5	A14		20	11.01	0.83					87595-1.RAW	11:19:20	18.60	Sample	OK	1
*F710289-BLK6	A15		20	11.01	0.37					87596-1.RAW	11:23:29	14.45	Sample	OK	1
*F710289-BLK7	A16		20	11.01	0.44					87597-1.RAW	11:27:37	15.07	Sample	OK	1
F710289-BS1	A17		20	11.01	100.91					87598-1.RAW	11:31:46	939.34	Sample	OK	1
F710289-BSD1	A18		20	11.01	101.41					87599-1.RAW	11:35:54	943.91	Sample	OK	1
F710289-BS2	A19		400	11.01	2038.65					87600-1.RAW	11:40:03	948.71	Sample	OK	1
SEQ-CCV1	A20		1	11.01	4.80			96.05		87601-1.RAW	11:44:11	894.56	Sample	OK	1
SEQ-CCB1	A21		1	11.01	0.04			0.00		87602-1.RAW	11:48:19	18.46	Sample	OK	1
1709627-19	B1		100	11.01	100.71					87603-1.RAW	11:52:28	196.30	Sample	OK	1
1709627-20	B2		100	11.01	94.04					87604-1.RAW	11:56:36	184.03	Sample	OK	1
1709628-01	B3		100	11.01	1010.54					87605-1.RAW	12:00:45	1870.25	Sample	OK	1
1709628-02	B4		100	11.01	1505.90					87606-1.RAW	12:04:53	2781.65	Sample	OK	1
1709628-03	B5		100	11.01	1463.25					87607-1.RAW	12:09:02	2703.17	Sample	OK	1
1709628-04	B6		100	11.01	1567.59					87608-1.RAW	12:13:10	2895.15	Sample	OK	1
1709628-05	B7		100	11.01	1255.81					87609-1.RAW	12:17:19	2321.52	Sample	OK	1
1709628-06	B8		100	11.01	887.85					87610-1.RAW	12:21:27	1644.53	Sample	OK	1
1709628-07	B9		100	11.01	1345.12					87611-1.RAW	12:25:35	2485.82	Sample	OK	1
1709628-08	B10		100	11.01	1418.54					87612-1.RAW	12:29:44	2620.92	Sample	OK	1
SEQ-CCV2	B11		1	11.01	4.92			98.35		87613-1.RAW	12:33:52	915.74	Sample	OK	1
SEQ-CCB2	B12		1	11.01	0.12			0.00		87614-1.RAW	12:38:01	32.72	Sample	OK	1
1709627-19RE1	B13		20	11.01	100.07					87615-1.RAW	12:42:09	931.62	Sample	OK	1
1709627-20RE1	B14		20	11.01	90.09					87616-1.RAW	12:46:18	839.79	Sample	OK	1
1709628-09	B15		100	11.01	1450.41					87617-1.RAW	12:50:26	2679.55	Sample	OK	1
1709628-10	B16		100	11.01	1272.35					87618-1.RAW	12:54:35	2351.94	Sample	OK	1
1709628-11	B17		100	11.01	2304.43					87619-1.RAW	12:58:43	4250.83	Sample	OK	1
1709628-12	B18		100	11.01	1191.63					87620-1.RAW	13:02:51	2203.43	Sample	OK	1

1709628-13	B19	100	11.01	1002.83		87621-1.RAW	13:07:00	1856.08	Sample	OK	1
1709628-14	B20	100	11.01	1162.89		87622-1.RAW	13:11:08	2150.55	Sample	OK	1
1709628-16	B21	100	11.01	2760.23		87623-1.RAW	13:15:17	5089.43	Sample	FB	1
1709628-18	C1	100	11.01	1099.68		87624-1.RAW	13:19:25	2034.26	Sample	OK	1
SEQ-CCV3	C2	1	11.01	5.11	102.18	87625-1.RAW	13:23:34	950.96	Sample	OK	1
SEQ-CCB3	C3	1	11.01	0.10	0.00	87626-1.RAW	13:27:42	30.14	Sample	OK	1
F710289-DUP1	C4	20	11.01	106.43		87627-1.RAW	13:31:50	990.09	Sample	OK	1
F710289-MS1	C5	400	11.01	4684.03	4360.08	87628-1.RAW	13:35:59	2165.49	Sample	OK	1
F710289-MSD1	C6	400	11.01	4420.52		87629-1.RAW	13:40:07	2044.29	Sample	OK	1
F710289-MS2	C7	400	11.01	5745.94	129.92	87630-1.RAW	13:44:16	2653.93	Sample	OK	1
F710289-MSD2	C8	400	11.01	5388.44		87631-1.RAW	13:48:24	2489.50	Sample	OK	1
F710290-BLK1	C9	20	11.01	3.64		87632-1.RAW	13:52:33	44.45	Sample	OK	1
F710290-BLK2	C10	20	11.01	1.64		87633-1.RAW	13:56:41	26.07	Sample	OK	1
F710290-BLK3	C11	20	11.01	1.47		87634-1.RAW	14:00:50	24.53	Sample	OK	1
*F710290-BLK4	C12	20	11.01	1.48		87635-1.RAW	14:04:58	24.64	Sample	OK	1
*F710290-BLK5	C13	20	11.01	1.78		87636-1.RAW	14:09:07	27.39	Sample	OK	1
SEQ-CCV4	C14	1	11.01	4.93	98.51	87637-1.RAW	14:13:15	917.23	Sample	OK	1
SEQ-CCB4	C15	1	11.01	0.05	0.00	87638-1.RAW	14:17:23	19.60	Sample	OK	1
F710290-BS1	C16	20	11.01	106.12		87639-1.RAW	14:21:32	987.19	Sample	OK	1
F710290-BSD1	C17	20	11.01	103.09		87640-1.RAW	14:25:40	959.39	Sample	OK	1
F710290-BS2	C18	400	11.01	2103.75		87641-1.RAW	14:29:49	978.66	Sample	OK	1
1709628-19	C19	100	11.01	1159.97		87642-1.RAW	14:33:57	2145.19	Sample	OK	1
1709628-20	C20	100	11.01	1022.54		87643-1.RAW	14:38:06	1892.34	Sample	OK	1
1709629-01	C21	100	11.01	683.36		87644-1.RAW	14:42:14	1268.29	Sample	OK	1
1709629-02	A1	100	11.01	757.59		87645-1.RAW	14:46:22	1404.87	Sample	OK	1
1709629-03	A2	100	11.01	1185.47		87646-1.RAW	14:50:31	2192.11	Sample	OK	1
1709629-04	A3	100	11.01	1490.06		87647-1.RAW	14:54:39	2752.51	Sample	OK	1
1709629-05	A4	100	11.01	713.12		87648-1.RAW	14:58:48	1323.04	Sample	OK	1
SEQ-CCV5	A5	1	11.01	4.98	99.58	87649-1.RAW	15:02:56	927.06	Sample	OK	1
SEQ-CCB5	A6	1	11.01	0.07	0.00	87650-1.RAW	15:07:05	24.22	Sample	OK	1
1709629-06	A7	100	11.01	1473.33		87651-1.RAW	15:11:13	2721.72	Sample	OK	1
1709629-07	A8	100	11.01	1605.45		87652-1.RAW	15:15:22	2964.81	Sample	OK	1
1709629-08	A9	100	11.01	508.43		87653-1.RAW	15:19:30	946.45	Sample	OK	1
1709629-09	A10	100	11.01	952.67		87654-1.RAW	15:23:38	1763.79	Sample	OK	1
1709629-10	A11	100	11.01	1776.37		87655-1.RAW	15:27:47	3279.27	Sample	OK	1
1709629-11	A12	100	11.01	2404.72		87656-1.RAW	15:31:55	4435.34	Sample	OK	1
1709629-12	A13	100	11.01	1307.86		87657-1.RAW	15:36:04	2417.28	Sample	OK	1
1709629-13	A14	100	11.01	1102.71		87658-1.RAW	15:40:12	2039.83	Sample	OK	1
1709629-14	A15	100	11.01	2546.49		87659-1.RAW	15:44:21	4696.18	Sample	OK	1
1709629-15	A16	100	11.01	1552.40		87660-1.RAW	15:48:29	2867.19	Sample	OK	1
SEQ-CCV6	A17	1	11.01	4.97	99.35	87661-1.RAW	15:52:38	924.92	Sample	OK	1
SEQ-CCB6	A18	1	11.01	0.11	0.00	87662-1.RAW	15:56:46	31.96	Sample	OK	1
1709629-16	A19	100	11.01	726.68		87663-1.RAW	16:00:54	1347.99	Sample	OK	1
1709629-17	A20	100	11.01	1182.57		87664-1.RAW	16:05:03	2186.77	Sample	OK	1
1709629-18	A21	100	11.01	1123.05		87665-1.RAW	16:09:11	2077.26	Sample	OK	1
F710290-DUP1	B1	100	11.01	1235.01		87666-1.RAW	16:13:20	2283.24	Sample	OK	1
F710290-MS1	B2	400	11.01	5841.39	472.60	87667-1.RAW	16:17:28	2697.84	Sample	OK	1
F710290-MSD1	B3	400	11.01	6139.70		87668-1.RAW	16:21:37	2835.05	Sample	OK	1

F710290-MS2	B4	400	11.01	5882.56	95.78	87669-1.RAW	16:25:45	2716.77	Sample	OK	1
F710290-MSD2	B5	400	11.01	5755.94		87670-1.RAW	16:29:54	2658.53	Sample	OK	1
SEQ-CCV7	B6	1	11.01	5.19	103.87	87671-1.RAW	16:34:23	966.58	Sample	OK	1
SEQ-CCB7	B7	1	11.01	0.18	0.00	87672-1.RAW	16:38:31	43.50	Sample	OK	1

ANALYSIS SEQUENCE

7J19011

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/18/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J19011-IBL1	QC	1			
7J19011-IBL2	QC	2			
7J19011-IBL3	QC	3			
7J19011-CAL1	QC	4	1704505		
7J19011-CAL2	QC	5	1704506		
7J19011-CAL3	QC	6	1704507		
7J19011-CAL4	QC	7	1704508		
7J19011-CAL5	QC	8	1704509		
7J19011-ICV1	QC	9	1705628		
F710289-BLK1	QC	10			
F710289-BLK2	QC	11			
F710289-BLK3	QC	12			
F710289-BLK4	QC	13			
F710289-BLK5	QC	14			
F710289-BLK6	QC	15			
F710289-BLK7	QC	16			
F710289-BS1	QC	17			
F710289-BSD1	QC	18			
F710289-BS2	QC	19			
7J19011-CCV1	QC	20	1705628		
7J19011-CCB1	QC	21			
1709627-19	Hg-CVAFS-T-7030	22			
1709627-20	Hg-CVAFS-T-7030	23			
1709628-01	Hg-CVAFS-T-7030	24			
1709628-02	Hg-CVAFS-T-7030	25			
1709628-03	Hg-CVAFS-T-7030	26			
1709628-04	Hg-CVAFS-T-7030	27			
1709628-05	Hg-CVAFS-T-7030	28			
1709628-06	Hg-CVAFS-T-7030	29			
1709628-07	Hg-CVAFS-T-7030	30			
1709628-08	Hg-CVAFS-T-7030	31			
7J19011-CCV2	QC	32	1705628		
7J19011-CCB2	QC	33			
1709627-19RE1	Hg-CVAFS-T-7030	34			Added 10/19/2017 by DM2
1709627-20RE1	Hg-CVAFS-T-7030	35			Added 10/19/2017 by DM2

Due Date: 10/20/2017

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ANALYSIS SEQUENCE

7J19011

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/18/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709628-09	Hg-CVAFS-T-7030	36			
1709628-10	Hg-CVAFS-T-7030	37			
1709628-11	Hg-CVAFS-T-7030	38			
1709628-12	Hg-CVAFS-T-7030	39			
1709628-13	Hg-CVAFS-T-7030	40			
1709628-14	Hg-CVAFS-T-7030	41			
1709628-16	Hg-CVAFS-T-7030	42			
1709628-18	Hg-CVAFS-T-7030	43			
7J19011-CCV3	QC	44	1705628		
7J19011-CCB3	QC	45			
F710289-DUP1	QC	46			
F710289-MS1	QC	47			
F710289-MSD1	QC	48			
F710289-MS2	QC	49			
F710289-MSD2	QC	50			
F710290-BLK1	QC	51			
F710290-BLK2	QC	52			
F710290-BLK3	QC	53			
F710290-BLK4	QC	54			
F710290-BLK5	QC	55			
7J19011-CCV4	QC	56	1705628		
7J19011-CCB4	QC	57			
F710290-BS1	QC	58			
F710290-BSD1	QC	59			
F710290-BS2	QC	60			
1709628-19	Hg-CVAFS-T-7030	61			
1709628-20	Hg-CVAFS-T-7030	62			
1709629-01	Hg-CVAFS-T-7030	63			
1709629-02	Hg-CVAFS-T-7030	64			
1709629-03	Hg-CVAFS-T-7030	65			
1709629-04	Hg-CVAFS-T-7030	66			
1709629-05	Hg-CVAFS-T-7030	67			
7J19011-CCV5	QC	68	1705628		
7J19011-CCB5	QC	69			
1709629-06	Hg-CVAFS-T-7030	70			

Due Date: 10/20/2017

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ANALYSIS SEQUENCE

7J19011

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/18/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709629-07	Hg-CVAFS-T-7030	71			
1709629-08	Hg-CVAFS-T-7030	72			
1709629-09	Hg-CVAFS-T-7030	73			
1709629-10	Hg-CVAFS-T-7030	74			
1709629-11	Hg-CVAFS-T-7030	75			
1709629-12	Hg-CVAFS-T-7030	76			
1709629-13	Hg-CVAFS-T-7030	77			
1709629-14	Hg-CVAFS-T-7030	78			
1709629-15	Hg-CVAFS-T-7030	79			
7J19011-CCV6	QC	80	1705628		
7J19011-CCB6	QC	81			
1709629-16	Hg-CVAFS-T-7030	82			
1709629-17	Hg-CVAFS-T-7030	83			
1709629-18	Hg-CVAFS-T-7030	84			
F710290-DUP1	QC	85			
F710290-MS1	QC	86			
F710290-MSD1	QC	87			
F710290-MS2	QC	88			
F710290-MSD2	QC	89			
7J19011-CCV7	QC	90	1705628		
7J19011-CCB7	QC	91			

Don Moran 10/18/17
 Samples Loaded By Date

Don Moran 10/19/17
 Data Processed By Date

PREPARATION BENCH SHEET

F710289

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710289-BLK1	Blank	0.25	20					
F710289-BLK2	Blank	0.25	20					
F710289-BLK3	Blank	0.25	20					
F710289-BLK4	Blank	0.285	20					Pre-homogenization Blank for 1709627
F710289-BLK5	Blank	0.26	20					Post-homogenization Blank for 1709627
F710289-BLK6	Blank	0.281	20					Pre-homogenization Blank for 1709628
F710289-BLK7	Blank	0.288	20					Post-homogenization Blank for 1709628
F710289-BS1	LCS	0.25	20	1704421	20			
F710289-BS2	DORM4	0.1285	20	1705412	128.5			
F710289-BSD1	LCS Dup	0.25	20	1704421	20			
F710289-DUP1	Duplicate [1709627-19RE1]	0.271	20					
F710289-MS1	Matrix Spike [1709627-19RE1]	0.257	20	1705554	100			
F710289-MS2	Matrix Spike [1709628-01]	0.275	20	1705554	100			
F710289-MSD1	Matrix Spike Dup [1709627-19RE1]	0.261	20	1705554	100			
F710289-MSD2	Matrix Spike Dup [1709628-01]	0.272	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705927	70/30 Digestion Acid	02-Apr-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00
			1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

PREPARATION BENCH SHEET

F710289

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709627-19	FRB-01_17HC001_091317_BLM_19_WB	0.257	20	-	-	-		
1709627-19RE1	FRB-01_17HC001_091317_BLM_19_WB	0.257	20	-	-	-	Added 10/19/2017 by DM2	Added 10/19/2017 by DM2
1709627-20	FRB-01_17HC001_091317_BLM_20_WB	0.253	20	-	-	-		
1709627-20RE1	FRB-01_17HC001_091317_BLM_20_WB	0.253	20	-	-	-	Added 10/19/2017 by DM2	Added 10/19/2017 by DM2
1709628-01	ES-03_17HC001_091917_BLM_01_WB	0.269	20	QC	-	-	MS/MSD	
1709628-02	ES-03_17HC001_091917_BLM_02_WB	0.272	20	-	-	-		
1709628-03	ES-03_17HC001_091917_BLM_03_WB	0.252	20	-	-	-		
1709628-04	ES-03_17HC001_091917_BLM_04_WB	0.255	20	-	-	-		
1709628-05	ES-03_17HC001_091917_BLM_05_WB	0.257	20	-	-	-		
1709628-06	ES-03_17HC001_091917_BLM_06_WB	0.279	20	-	-	-		
1709628-07	ES-03_17HC001_091917_BLM_07_WB	0.281	20	-	-	-		
1709628-08	ES-03_17HC001_091917_BLM_08_WB	0.273	20	-	-	-		
1709628-09	ES-03_17HC001_091917_BLM_09_WB	0.282	20	-	-	-		
1709628-10	ES-03_17HC001_091917_BLM_10_WB	0.285	20	-	-	-		
1709628-11	ES-03_17HC001_091917_BLM_11_WB	0.288	20	-	-	-		
1709628-12	ES-03_17HC001_091917_BLM_12_WB	0.258	20	-	-	-		
1709628-13	ES-03_17HC001_091917_BLM_13_WB	0.275	20	-	-	-		
1709628-14	ES-03_17HC001_091917_BLM_14_WB	0.262	20	-	-	-		
1709628-16	ES-03_17HC001_091917_BLM_16_WB	0.267	20	-	-	-		

PREPARATION BENCH SHEET

F710289

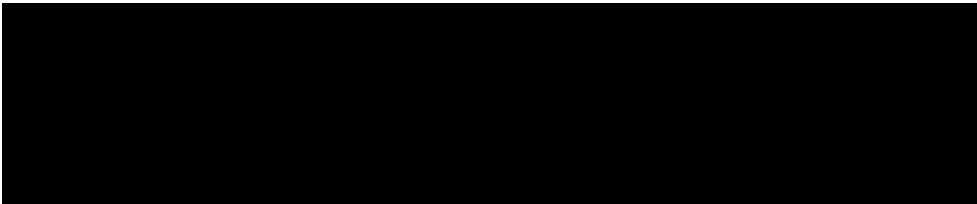
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709628-18	ES-03_17HC001_091917_BLM_18_WB	0.276	20	-	-	-		
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PREPARATION BENCH SHEET

F710290

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710290-BLK1	Blank	0.25	20					
F710290-BLK2	Blank	0.25	20					
F710290-BLK3	Blank	0.25	20					
F710290-BLK4	Blank	0.289	20					Pre-homogenization Blank for 1709629
F710290-BLK5	Blank	0.292	20					Post-homogenization Blank for 1709629
F710290-BS1	LCS	0.25	20	1704421	20			
F710290-BS2	DORM4	0.1267	20	1705412	126.7			
F710290-BSD1	LCS Dup	0.25	20	1704421	20			
F710290-DUP1	Duplicate [1709628-19]	0.283	20					
F710290-MS1	Matrix Spike [1709628-19]	0.263	20	1705554	100			
F710290-MS2	Matrix Spike [1709629-01]	0.264	20	1705554	100			
F710290-MSD1	Matrix Spike Dup [1709628-19]	0.278	20	1705554	100			
F710290-MSD2	Matrix Spike Dup [1709629-01]	0.276	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705927	70/30 Digestion Acid	02-Apr-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00
			1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

PREPARATION BENCH SHEET

F710290

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709628-19	ES-03_17HC001_091917_BLM_19_WB	0.269	20	-	-	-		
1709628-20	ES-03_17HC001_091917_BLM_20_WB	0.269	20	-	-	-		
1709629-01	ES-FP_17HC001_091917_BLM_01_WB	0.279	20	QC	-	-	MS/MSD	
1709629-02	ES-FP_17HC001_091917_BLM_02_WB	0.26	20	-	-	-		
1709629-03	ES-FP_17HC001_091917_BLM_03_WB	0.289	20	-	-	-		
1709629-04	ES-FP_17HC001_091917_BLM_04_WB	0.265	20	-	-	-		
1709629-05	ES-FP_17HC001_091917_BLM_05_WB	0.268	20	-	-	-		
1709629-06	ES-FP_17HC001_091917_BLM_06_WB	0.257	20	-	-	-		
1709629-07	ES-FP_17HC001_091917_BLM_07_WB	0.279	20	-	-	-		
1709629-08	ES-FP_17HC001_091917_BLM_08_WB	0.259	20	-	-	-		
1709629-09	ES-FP_17HC001_091917_BLM_09_WB	0.259	20	-	-	-		
1709629-10	ES-FP_17HC001_091917_BLM_10_WB	0.253	20	-	-	-		
1709629-11	ES-FP_17HC001_091917_BLM_11_WB	0.286	20	-	-	-		
1709629-12	ES-FP_17HC001_091917_BLM_12_WB	0.27	20	-	-	-		
1709629-13	ES-FP_17HC001_091917_BLM_13_WB	0.253	20	-	-	-		
1709629-14	ES-FP_17HC001_091917_BLM_14_WB	0.281	20	-	-	-		
1709629-15	ES-FP_17HC001_091917_BLM_15_WB	0.254	20	-	-	-		
1709629-16	ES-FP_17HC001_091917_BLM_16_WB	0.259	20	-	-	-		
1709629-17	ES-FP_17HC001_091917_BLM_17_WB	0.258	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710290

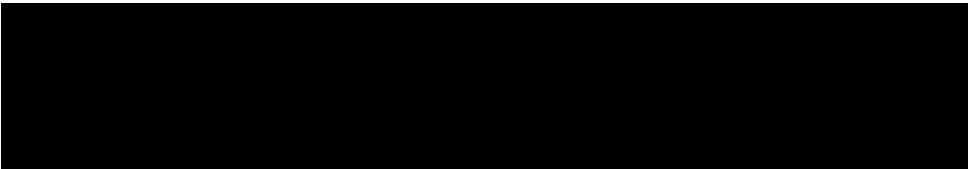
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709629-18	ES-FP_17HC001_091917_BLM_18_WB	0.273	20	-	-	-		
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PREPARATION BENCH SHEET

2600-2
10/18/17 DM

F710289

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710289-BLK1	Blank	0.25	20					20X
F710289-BLK2	Blank	0.25	20					20X
F710289-BLK3	Blank	0.25	20					20X
F710289-BLK4	Blank	0.285	20					Pre-homogenization Blank for 1709627 20X
F710289-BLK5	Blank	0.26	20					Post-homogenization Blank for 1709627 20X
F710289-BLK6	Blank	0.281	20					Pre-homogenization Blank for 1709628 20X
F710289-BLK7	Blank	0.288	20					Post-homogenization Blank for 1709628 20X
F710289-BS1	LCS	0.25	20	1704421	20			20X
F710289-BS2	DORM4	0.1285	20	1705412	128.5			400X
F710289-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710289-DUP1	Duplicate [1709627-19] RE1	0.271	20					20X
F710289-MS1	Matrix Spike [1709627-19] RE1	0.257	20	1705554	100			400X
F710289-MS2	Matrix Spike [1709628-01]	0.275	20	1705554	100			400X
F710289-MSD1	Matrix Spike Dup [1709627-19] RE1	0.261	20	1705554	100			400X
F710289-MSD2	Matrix Spike Dup [1709628-01]	0.272	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705927	70/30 Digestion Acid	02-Apr-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706079	5% BrCl	14-Mar-18 00:00

1705610
1705611
1705182
1706142

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600.2
10/18/17 DM

F710289

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments DM 10/18/17
1709627-19	FRB-01_17HC001_091317_BLM_19_WB	0.257	20	-	-	-		100X → 50X 20X
1709627-20	FRB-01_17HC001_091317_BLM_20_WB	0.253	20	-	-	-		100X → 50X 20X
1709628-01	ES-03_17HC001_091917_BLM_01_WB	0.269	20	QC	-	-	MS/MSD	100X
1709628-02	ES-03_17HC001_091917_BLM_02_WB	0.272	20	-	-	-		100X
1709628-03	ES-03_17HC001_091917_BLM_03_WB	0.252	20	-	-	-		100X
1709628-04	ES-03_17HC001_091917_BLM_04_WB	0.255	20	-	-	-		100X
1709628-05	ES-03_17HC001_091917_BLM_05_WB	0.257	20	-	-	-		100X
1709628-06	ES-03_17HC001_091917_BLM_06_WB	0.279	20	-	-	-		100X
1709628-07	ES-03_17HC001_091917_BLM_07_WB	0.281	20	-	-	-		100X
1709628-08	ES-03_17HC001_091917_BLM_08_WB	0.273	20	-	-	-		100X
1709628-09	ES-03_17HC001_091917_BLM_09_WB	0.282	20	-	-	-		100X
1709628-10	ES-03_17HC001_091917_BLM_10_WB	0.285	20	-	-	-		100X
1709628-11	ES-03_17HC001_091917_BLM_11_WB	0.288	20	-	-	-		100X
1709628-12	ES-03_17HC001_091917_BLM_12_WB	0.258	20	-	-	-		100X
1709628-13	ES-03_17HC001_091917_BLM_13_WB	0.275	20	-	-	-		100X
1709628-14	ES-03_17HC001_091917_BLM_14_WB	0.262	20	-	-	-		100X
1709628-15	ES-03_17HC001_091917_BLM_15_WB	0.25	20	-	-	-		—
1709628-16	ES-03_17HC001_091917_BLM_16_WB	0.267	20	-	-	-		100X
1709628-18	ES-03_17HC001_091917_BLM_18_WB	0.276	20	-	-	-		100X

PREPARATION BENCH SHEET

F710289

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017



Technician: CWF Batch#: F710289 Date: 10/11/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6,19 (DORMU) Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 5:40 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C

Time out: 7:40 Actual Temp. (raw): 85.1 °C w/ CF: 85.1 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1706079) Spike vol.: 100 µL (LIMS ID: 1705554)

Spike Witness: PC 10/11/17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: 0207852 Calibration Date: 10/9/17

HNO₃ LIMS ID: N/A

Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1705927

Dispenser #: 0202749 Calibrated? Yes No

Other Acid LIMS ID: N/A

Dispenser #: 15406623 Yes No

Glass Vial # 00068647 Boiling Chip lot # 1702551

*Hotblock Position: A2

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710289 - Blk1	0.269	23	1709628 - 06	0.279	BS2 DORMU LIMS: 1705412 Balance: 19
2	F710289 - Blk2	0.259	24	1709628 - 07	0.281	
3	F710289 - Blk3	0.272	25	1709628 - 08	0.273	Comments
4	F710289 - Blk4	0.285	26	1709628 - 09	0.282	
5	F710289 - Blk5	0.260	27	1709628 - 10	0.285	BS1/BSD1 spiked with 20µL of 1706079
6	F710289 - Blk6	0.281	28	1709628 - 11	0.288	
7	F710289 - Blk7	0.288	29	1709628 - 12	0.258	DUPI/MSI/MSDS1 source: 1709627 ^{CWF} 1709627 - 19
8	F710289 - BS1	0.279	30	1709628 - 13	0.275	
9	F710289 - BSD1	0.250	31	1709628 - 14	0.262	MS2/MSDS2 source: 1709628-01
10	F710289 - BS2	0.1285	32	1709628 - 16	0.267	
11	1709627 - 19	0.257	33 ^{CWF}	1709628 - 17	0.276	Blk 4 + 5 are Pre/Post blanks for 1709627
12	F710289 - DUPI ^{CWF} 20/10/17	0.271	34	1709628 - 18	0.276	
13	F710289 - MSI	0.257	35 ^{CWF}	1709628 - 19	0.269	Blk 6 + 7 are Pre/Post blanks for 1709628
14	F710289 - MSD1	0.261	36 ^{CWF}	Already batched		
15	1709627 - 20	0.253	37			No Sample 1709628-17, removed from batch.
16	1709628 - 01	0.269	38			
17	F710289 - MS2	0.275	39			<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>CWF 10/11/17</p> </div>
18	F710289 - MSD2	0.272	40			
19	1709628 - 02	0.272	41			
20	1709628 - 03	0.252	42			
21	1709628 - 04	0.255	43			
22	1709628 - 05	0.297	44			

PREPARATION BENCH SHEET

2600.2
10/18/17 DM

F710290

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710290-BLK1	Blank	0.25	20					20X
F710290-BLK2	Blank	0.25	20					20X
F710290-BLK3	Blank	0.25	20					20X
F710290-BLK4	Blank	0.289	20					Pre-homogenization Blank for 1709629 20X
F710290-BLK5	Blank	0.292	20					Post-homogenization Blank for 1709629 20X
F710290-BS1	LCS	0.25	20	1704421	20			20X
F710290-BS2	DORM4	0.1267	20	1705412	126.7			400X
F710290-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710290-DUP1	Duplicate [1709628-19]	0.283	20					100X
F710290-MS1	Matrix Spike [1709628-19]	0.263	20	1705554	100			400X
F710290-MS2	Matrix Spike [1709629-01]	0.264	20	1705554	100			400X
F710290-MSD1	Matrix Spike Dup [1709628-19]	0.278	20	1705554	100			400X
F710290-MSD2	Matrix Spike Dup [1709629-01]	0.276	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705927	70/30 Digestion Acid	02-Apr-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706079	5% BrCl	14-Mar-18 00:00

1705610
1705611
1703182
1706142

PREPARATION BENCH SHEET

2600-2
10/18/17 DM

F710290

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709628-19	ES-03_17HC001_091917_BLM_19_WB	0.269	20	-	-	-		100x
1709628-20	ES-03_17HC001_091917_BLM_20_WB	0.269	20	-	-	-		100x
1709629-01	ES-FP_17HC001_091917_BLM_01_WB	0.279	20	QC	-	-	MS/MSD	100x
1709629-02	ES-FP_17HC001_091917_BLM_02_WB	0.26	20	-	-	-		100x
1709629-03	ES-FP_17HC001_091917_BLM_03_WB	0.289	20	-	-	-		100x
1709629-04	ES-FP_17HC001_091917_BLM_04_WB	0.265	20	-	-	-		100x
1709629-05	ES-FP_17HC001_091917_BLM_05_WB	0.268	20	-	-	-		100x
1709629-06	ES-FP_17HC001_091917_BLM_06_WB	0.257	20	-	-	-		100x
1709629-07	ES-FP_17HC001_091917_BLM_07_WB	0.279	20	-	-	-		100x
1709629-08	ES-FP_17HC001_091917_BLM_08_WB	0.259	20	-	-	-		100x
1709629-09	ES-FP_17HC001_091917_BLM_09_WB	0.259	20	-	-	-		100x
1709629-10	ES-FP_17HC001_091917_BLM_10_WB	0.253	20	-	-	-		100x
1709629-11	ES-FP_17HC001_091917_BLM_11_WB	0.286	20	-	-	-		100x
1709629-12	ES-FP_17HC001_091917_BLM_12_WB	0.27	20	-	-	-		100x
1709629-13	ES-FP_17HC001_091917_BLM_13_WB	0.253	20	-	-	-		100x
1709629-14	ES-FP_17HC001_091917_BLM_14_WB	0.281	20	-	-	-		100x
1709629-15	ES-FP_17HC001_091917_BLM_15_WB	0.254	20	-	-	-		100x
1709629-16	ES-FP_17HC001_091917_BLM_16_WB	0.259	20	-	-	-		100x
1709629-17	ES-FP_17HC001_091917_BLM_17_WB	0.258	20	-	-	-		100x

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2
10/18/17 DM

F710290

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709629-18	ES-FP_17HC001_091917_BLM_18_WB	0.273	20	-	-	-		100X
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Technician: WF Batch#: F710290 Date: 10/11/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19 (DORM4) Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 15:40 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C

Time out: 17:40 Actual Temp. (raw): 85.1 °C w/ CF: 85.1 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1706079) Spike vol.: 100 ^{µs/msd} µL (LIMS ID: 1705584)
 Spike Witness: R 10/11/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0007852 Calibration Date: 10/9/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705927 Dispenser #: 0262749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: A2

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710290 - BLK1	0.255	23	1709629 - 08	0.259	BS2 = DORM4
2	F710290 - BLK2	0.265	24	1709629 - 09	0.259	LIMS: 1705412
3	F710290 - BLK3	0.265	25	1709629 - 10	0.253	Balance: 19
4	F710290 - BLK4	0.289	26	1709629 - 11	0.286	Comments
5	F710290 - BLK5	0.292	27	1709629 - 12	0.270	
6	F710290 - BS1	0.280	28	1709629 - 13	0.253	BS1/BSD1 spiked with 20 µL with of ^{WF} _{10/11/17}
7	F710290 - BSD1	0.251	29	1709629 - 14	0.281	1704424
8	F710290 - BS2	0.1267	30	1709629 - 15	0.254	^{WF} _{10/11/17} m52/ms1/msd1 source; 1709628-19
9	1709628 - 19	0.269	31	1709629 - 16	0.259	^{WF} _{10/11/17}
10	F710290 - DUP1	0.283	32	1709629 - 17	0.258	m52/msd2
11	F710290 - M51	0.263	33	1709629 - 18	0.273	source: 1709628 ^{WF} _{10/11/17}
12	F710290 - MSD1	0.278	34			1709629-01
13	1709628 - 20	0.269	35			BLK4+5 are pre/post blanks for 1709629
14	1709629 - 01	0.279	36			
15	F710290 - M52	0.264	37			Pre/post blanks for 1709628 are in batch F710289
16	F710290 - MSD2	0.276	38			
17	1709629 - 02	0.260	39			
18	1709629 - 03	0.289	40			
19	1709629 - 04	0.265	41			
20	1709629 - 05	0.268	42			
21	1709629 - 06	0.297	43			
22	1709629 - 07	0.279	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7J19011
Reviewer:	0 <i>[Signature]</i> 10/19/17	Dataset ID(s):	THG26002-171018-1
Date:	10/19/2017	WO (s) #:	1709627, 1709628, 1709629
Batch #(s):	F710289, F710290		0

Analyst Initials DM

Reviewer Initials BC

5b. Has the B/C section data been uploaded?

YES NO N/A

QA/QC Data Checked

6. RSD CF (≤ 15%)

PASS FAIL

Comments: _____

7. The calibration curve included a minimum of 5 Standards

YES NO

Comments: _____

8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)

PASS FAIL

9. ICV and CCV % Recoveries EPA 1631E (77-123%)

PASS FAIL

Comments: _____

10. Do all calibration points pass acceptance criteria?

YES NO

Comments: _____

11. Are qualifiers consistent with the data review flowcharts?

YES NO N/A

Comments: _____

12. Explain any items on the failed data report from Element

Comments: **NONE**

13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list)

PASS FAIL

(a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:

(b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?

YES NO

(c) Was a BrCl Blank analyzed for each preservation level?

YES NO N/A

(d) Are Preparation Blanks summarized on QC page?

YES NO

14. Filtration Blank Prepared (if yes, use FB qualifier)

YES NO

(a) Filtration Blank prep date same as associated samples' prep date

YES NO N/A

(b) Filtration Blank absolute value < PQL or <2.2xMDL for WI

YES NO N/A

15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?

PASS FAIL

Comments: _____

16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?

PASS FAIL

Comments: _____

17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)

YES NO N/A

18. Is the correct 'Source' designated for MD/MS/MSD?

YES NO

19. For digested preps: was there a spike witness signature & date on the prep bench sheet?

YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7J19011
Reviewer:	0 <i>B/C</i> <i>10/19/17</i>	Dataset ID(s):	THG26002-171018-1
Date:	10/19/2017	WO (s) #:	1709627, 1709628, 1709629
Batch #(s):	F710289, F710290		0

Analyst Initials DM

Reviewer Initials B/C

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
- Files located at:** \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs
- | | | | | |
|---|------------|----------------------------------|---|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ | 11/23/2016 | IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ | 5/20/2016 | Current SOP revision read? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ | 7/28/2017 | LOD within last 3 months? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ | 7/28/2017 | LOQ within last 3 months? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709628

PO#

C012505850

October 21, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709628

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October 21, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-03_17HC001_091917_BLM_01_WB	1709628-01	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_02_WB	1709628-02	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_03_WB	1709628-03	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_04_WB	1709628-04	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_05_WB	1709628-05	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_06_WB	1709628-06	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_07_WB	1709628-07	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_08_WB	1709628-08	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_09_WB	1709628-09	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_10_WB	1709628-10	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_11_WB	1709628-11	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_12_WB	1709628-12	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_13_WB	1709628-13	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_14_WB	1709628-14	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_15_WB	1709628-15	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_16_WB	1709628-16	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_18_WB	1709628-18	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_19_WB	1709628-19	Tissue	19-Sep-17 16:45	22-Sep-17 10:25
ES-03_17HC001_091917_BLM_20_WB	1709628-20	Tissue	19-Sep-17 16:45	22-Sep-17 10:25

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM . Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM . The samples were received intact, on-ice within two sealed coolers at -27.1 and -21.6 degrees Celsius.

Client requested Lipids Analysis by NOAA 1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

During the homogenization, the lab saw that there was no meat inside of sample 1709628-17, only dirt and sand. The analysis request was cancelled and the client was notified.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in three batches; F710289, F710290, and F710387. Sample 1709628-01 was used as the QC source in batch F710289. Sample 1709628-19 was used as the QC source in batch F710290. Sample 1709628-15 was used as the QC source in batch F710387. These samples were analyzed in two sequences; 7J19011 and 7J20014.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

Client: AMSC Foster Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/23/17 Labeled By: CSB

Project: _____

Received By: LM Label Verified By: Be

of Coolers Received: 2 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>1709628</u>	CF: <u>10.1 °C</u>	Date/time: <u>9/22/17 10:25</u>	By: <u>LM</u>
Cooler 1: <u>-27.22°C</u>	w/ CF: <u>-27.12°C</u>	Cooler 4: _____ °C	w/ CF: _____ °C
Cooler 2: <u>-21.73°C</u>	w/ CF: <u>-21.63°C</u>	Cooler 5: _____ °C	w/ CF: _____ °C
Cooler 3: _____ °C	w/ CF: _____ °C	Cooler 6: _____ °C	w/ CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	Y	
Preservation type:	Y	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4846 Cooler 2: 7878 1037 1884

1709628





AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_01_WB
1709628-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	75.0	0.416	3.72	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	
---------	------	-------	------	------	-----	---------	-----------	---------	-----------	-----------	--



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_02_WB
1709628-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	111	0.412	3.68	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_03_WB
1709628-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	116	0.444	3.97	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_04_WB
1709628-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	123	0.439	3.92	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_05_WB
1709628-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	97.6	0.436	3.89	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_06_WB
1709628-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	63.5	0.401	3.58	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_07_WB
1709628-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	95.6	0.399	3.56	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 16:06
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ES-03_17HC001_091917_BLM_08_WB
1709628-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	104	0.410	3.66	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_09_WB
1709628-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	103	0.397	3.55	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_10_WB
1709628-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	89.2	0.393	3.51	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_11_WB
1709628-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	160	0.389	3.47	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_12_WB
1709628-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	92.3	0.434	3.88	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_13_WB
1709628-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	72.8	0.407	3.64	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_14_WB
1709628-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	88.7	0.427	3.82	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_15_WB
1709628-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	68.9	0.390	3.48	ng/g	100	F710387	17-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_16_WB
1709628-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	207	0.419	3.75	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_18_WB
1709628-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	79.6	0.406	3.62	ng/g	100	F710289	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_19_WB
1709628-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	86.1	0.416	3.72	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

ES-03_17HC001_091917_BLM_20_WB
1709628-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	75.9	0.416	3.72	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 16:06
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J19011 - F710289											
Cal Standard (7J19011-CAL1)						Prepared & Analyzed: 18-Oct-17					
Mercury	0.518	-		ng/L	0.50100		103				
Cal Standard (7J19011-CAL2)						Prepared & Analyzed: 18-Oct-17					
Mercury	1.028	-		ng/L	1.0020		103				
Cal Standard (7J19011-CAL3)						Prepared & Analyzed: 18-Oct-17					
Mercury	4.997	-		ng/L	5.0100		99.7				
Cal Standard (7J19011-CAL4)						Prepared & Analyzed: 18-Oct-17					
Mercury	19.53	-		ng/L	20.040		97.5				
Cal Standard (7J19011-CAL5)						Prepared & Analyzed: 18-Oct-17					
Mercury	38.34	-		ng/L	40.080		95.7				
Calibration Blank (7J19011-CCB1)						Prepared & Analyzed: 18-Oct-17					
Mercury	0.040	-		ng/L							
Calibration Blank (7J19011-CCB2)						Prepared & Analyzed: 18-Oct-17					
Mercury	0.118	-		ng/L							
Calibration Blank (7J19011-CCB3)						Prepared & Analyzed: 18-Oct-17					
Mercury	0.104	-		ng/L							
Calibration Blank (7J19011-CCB4)						Prepared & Analyzed: 18-Oct-17					
Mercury	0.047	-		ng/L							
Calibration Blank (7J19011-CCB5)						Prepared & Analyzed: 18-Oct-17					
Mercury	0.072	-		ng/L							

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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J19011 - F710289											
Calibration Blank (7J19011-CCB6)											
Prepared & Analyzed: 18-Oct-17											
Mercury	0.114	-		ng/L							
Calibration Blank (7J19011-CCB7)											
Prepared & Analyzed: 18-Oct-17											
Mercury	0.177	-		ng/L							
Calibration Check (7J19011-CCV1)											
Prepared & Analyzed: 18-Oct-17											
Mercury	4.802	-		ng/L	5.0000		96.0	77-123			
Calibration Check (7J19011-CCV2)											
Prepared & Analyzed: 18-Oct-17											
Mercury	4.917	-		ng/L	5.0000		98.3	77-123			
Calibration Check (7J19011-CCV3)											
Prepared & Analyzed: 18-Oct-17											
Mercury	5.109	-		ng/L	5.0000		102	77-123			
Calibration Check (7J19011-CCV4)											
Prepared & Analyzed: 18-Oct-17											
Mercury	4.926	-		ng/L	5.0000		98.5	77-123			
Calibration Check (7J19011-CCV5)											
Prepared & Analyzed: 18-Oct-17											
Mercury	4.979	-		ng/L	5.0000		99.6	77-123			
Calibration Check (7J19011-CCV6)											
Prepared & Analyzed: 18-Oct-17											
Mercury	4.967	-		ng/L	5.0000		99.3	77-123			
Calibration Check (7J19011-CCV7)											
Prepared & Analyzed: 18-Oct-17											
Mercury	5.194	-		ng/L	5.0000		104	77-123			
Instrument Blank (7J19011-IBL1)											
Prepared & Analyzed: 18-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 16:06
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J19011 - F710289

Instrument Blank (7J19011-IBL2)					Prepared & Analyzed: 18-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U

Instrument Blank (7J19011-IBL3)					Prepared & Analyzed: 18-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U

Initial Cal Check (7J19011-ICV1)					Prepared & Analyzed: 18-Oct-17						
Mercury	5.088	-		ng/L	5.0000		102	79-121			

Batch 7J20014 - F710387

Cal Standard (7J20014-CAL1)					Prepared & Analyzed: 19-Oct-17						
Mercury	0.528	-		ng/L	0.50100		105				

Cal Standard (7J20014-CAL2)					Prepared & Analyzed: 19-Oct-17						
Mercury	0.998	-		ng/L	1.0020		99.6				

Cal Standard (7J20014-CAL3)					Prepared & Analyzed: 19-Oct-17						
Mercury	5.090	-		ng/L	5.0100		102				

Cal Standard (7J20014-CAL4)					Prepared & Analyzed: 19-Oct-17						
Mercury	19.16	-		ng/L	20.040		95.6				

Cal Standard (7J20014-CAL5)					Prepared & Analyzed: 19-Oct-17						
Mercury	38.81	-		ng/L	40.080		96.8				

Calibration Blank (7J20014-CCB1)					Prepared & Analyzed: 19-Oct-17						
Mercury	0.100	-		ng/L							

Amy Goodall



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J20014 - F710387

Calibration Blank (7J20014-CCB2)											
Prepared & Analyzed: 19-Oct-17											
Mercury	0.086	-		ng/L							
Calibration Blank (7J20014-CCB3)											
Prepared & Analyzed: 19-Oct-17											
Mercury	0.105	-		ng/L							
Calibration Blank (7J20014-CCB4)											
Prepared & Analyzed: 19-Oct-17											
Mercury	0.102	-		ng/L							
Calibration Blank (7J20014-CCB5)											
Prepared & Analyzed: 19-Oct-17											
Mercury	0.099	-		ng/L							
Calibration Blank (7J20014-CCB6)											
Prepared & Analyzed: 19-Oct-17											
Mercury	0.063	-		ng/L							
Calibration Blank (7J20014-CCB7)											
Prepared & Analyzed: 19-Oct-17											
Mercury	0.081	-		ng/L							
Calibration Blank (7J20014-CCB8)											
Prepared & Analyzed: 19-Oct-17											
Mercury	0.101	-		ng/L							
Calibration Check (7J20014-CCV1)											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.827	-		ng/L	5.0000		96.5	77-123			
Calibration Check (7J20014-CCV2)											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.636	-		ng/L	5.0000		92.7	77-123			
Calibration Check (7J20014-CCV3)											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.853	-		ng/L	5.0000		97.1	77-123			

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21-Oct-17 16:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J20014 - F710387

Calibration Check (7J20014-CCV4)					Prepared & Analyzed: 19-Oct-17						
Mercury	4.851	-		ng/L	5.0000		97.0	77-123			
Calibration Check (7J20014-CCV5)					Prepared & Analyzed: 19-Oct-17						
Mercury	4.985	-		ng/L	5.0000		99.7	77-123			
Calibration Check (7J20014-CCV6)					Prepared & Analyzed: 19-Oct-17						
Mercury	4.674	-		ng/L	5.0000		93.5	77-123			
Calibration Check (7J20014-CCV7)					Prepared & Analyzed: 19-Oct-17						
Mercury	4.695	-		ng/L	5.0000		93.9	77-123			
Calibration Check (7J20014-CCV8)					Prepared & Analyzed: 19-Oct-17						
Mercury	4.792	-		ng/L	5.0000		95.8	77-123			
Instrument Blank (7J20014-IBL1)					Prepared & Analyzed: 19-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J20014-IBL2)					Prepared & Analyzed: 19-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J20014-IBL3)					Prepared & Analyzed: 19-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7J20014-ICV1)					Prepared & Analyzed: 19-Oct-17						
Mercury	5.021	-		ng/L	5.0000		100	79-121			

Batch F710289 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710289-BLK1)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.165	0.090	0.800	ng/g							J

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710289 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710289-BLK2)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.090	0.800	ng/g							U
Blank (F710289-BLK3)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.090	0.800	ng/g							U
Blank (F710289-BLK4)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.079	0.702	ng/g							F-03, U
Blank (F710289-BLK5)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.086	0.769	ng/g							F-03, U
Blank (F710289-BLK6)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.080	0.712	ng/g							F-03, U
Blank (F710289-BLK7)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.078	0.694	ng/g							F-03, U
LCS (F710289-BS1)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	7.966	0.090	0.800	ng/g	8.0160		99.4	75-125			
LCS (F710289-BS2)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	317.1	3.49	31.1	ng/g	373.70		84.9	75-125			
LCS Dup (F710289-BSD1)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	8.006	0.090	0.800	ng/g	8.0160		99.9	75-125	0.498	24	
Duplicate (F710289-DUP1)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	7.756	0.083	0.738	ng/g		7.683			0.934	24	

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710289 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike (F710289-MS1)		Source: 1709627-19RE1			Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	364.4	1.74	15.6	ng/g	389.11	7.683	91.7	71-125			
Matrix Spike (F710289-MS2)		Source: 1709628-01			Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	417.8	1.63	14.5	ng/g	363.64	75.03	94.3	71-125			
Matrix Spike Dup (F710289-MSD1)		Source: 1709627-19RE1			Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	338.6	1.72	15.3	ng/g	383.14	7.683	86.4	71-125	5.95	24	
Matrix Spike Dup (F710289-MSD2)		Source: 1709628-01			Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	396.1	1.65	14.7	ng/g	367.65	75.03	87.3	71-125	7.63	24	

Batch F710290 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710290-BLK1)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.291	0.090	0.800	ng/g							J
Blank (F710290-BLK2)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.131	0.090	0.800	ng/g							J
Blank (F710290-BLK3)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.118	0.090	0.800	ng/g							J
Blank (F710290-BLK4)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.078	0.692	ng/g							F-03, U
Blank (F710290-BLK5)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.077	0.685	ng/g							F-03, U

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710290 - EFGS-011 Nitric/Sulfuric Hg Digestion

LCS (F710290-BS1)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	8.309	0.090	0.800	ng/g	8.0160		104	75-125			
LCS (F710290-BS2)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	331.7	3.54	31.6	ng/g	373.70		88.8	75-125			
LCS Dup (F710290-BSD1)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	8.068	0.090	0.800	ng/g	8.0160		101	75-125	2.95	24	
Duplicate (F710290-DUP1)					Source: 1709628-19 Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	87.12	0.396	3.53	ng/g		86.08			1.21	24	
Matrix Spike (F710290-MS1)					Source: 1709628-19 Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	444.0	1.70	15.2	ng/g	380.23	86.08	94.1	71-125			
Matrix Spike (F710290-MS2)					Source: 1709629-01 Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	445.5	1.70	15.2	ng/g	378.79	48.83	105	71-125			
Matrix Spike Dup (F710290-MSD1)					Source: 1709628-19 Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	441.5	1.61	14.4	ng/g	359.71	86.08	98.8	71-125	4.85	24	
Matrix Spike Dup (F710290-MSD2)					Source: 1709629-01 Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	416.9	1.62	14.5	ng/g	362.32	48.83	102	71-125	3.02	24	

Batch F710387 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710387-BLK1)					Prepared: 17-Oct-17 Analyzed: 19-Oct-17						
Mercury	0.296	0.090	0.800	ng/g							J

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 16:06
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710387 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710387-BLK2) Prepared: 17-Oct-17 Analyzed: 19-Oct-17											
Mercury	0.132	0.090	0.800	ng/g							J
Blank (F710387-BLK3) Prepared: 17-Oct-17 Analyzed: 19-Oct-17											
Mercury	0.157	0.090	0.800	ng/g							J
LCS (F710387-BS1) Prepared: 17-Oct-17 Analyzed: 19-Oct-17											
Mercury	7.653	0.090	0.800	ng/g	8.0160		95.5	75-125			
LCS (F710387-BS2) Prepared: 17-Oct-17 Analyzed: 19-Oct-17											
Mercury	307.4	3.58	31.9	ng/g	373.70		82.3	75-125			
LCS Dup (F710387-BSD1) Prepared: 17-Oct-17 Analyzed: 19-Oct-17											
Mercury	7.138	0.090	0.800	ng/g	8.0160		89.0	75-125	6.95	24	
Duplicate (F710387-DUP1) Source: 1709628-15 Prepared: 17-Oct-17 Analyzed: 19-Oct-17											
Mercury	88.39	0.398	3.55	ng/g		68.92			24.8	24	QR-07
Matrix Spike (F710387-MS1) Source: 1709628-15 Prepared: 17-Oct-17 Analyzed: 19-Oct-17											
Mercury	414.8	1.71	15.2	ng/g	380.81	68.92	90.8	71-125			
Matrix Spike Dup (F710387-MSD1) Source: 1709628-15 Prepared: 17-Oct-17 Analyzed: 19-Oct-17											
Mercury	401.9	1.72	15.4	ng/g	384.02	68.92	86.7	71-125	4.65	24	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:06

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference





Analysis Datasheet for Total Mercury

Date of Analysis: October 18, 2017
Instrument #: Hg2600-2
LIMS Sequence #: 7J19011

Analyst: DM2
Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	106.39 units	212.79	95.38 units	190.76	103.7 %Rec
SEQ-CAL2	1	1.00 ng/L	200.22 units	200.22	189.21 units	189.21	102.8 %Rec
SEQ-CAL3	1	5.00 ng/L	930.46 units	186.09	919.45 units	183.89	99.9 %Rec
SEQ-CAL4	1	20.00 ng/L	3604.84 units	180.24	3593.83 units	179.69	97.7 %Rec
SEQ-CAL5	1	40.00 ng/L	7065.80 units	176.65	7054.79 units	176.37	95.9 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 183.99 +/- 6.12 3.3% RSD 191.20

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	11.01 units	±1.83	0.06 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.341 ng/L	±0.632
BLK	2	3	2.247 ng/L	±1.205
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER-REVIEWED
 INITIALS: BC 10/19/17

Instrument	Sample			Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
	Analyst	Type	LabNumber												
Hg2600-2	DM2	CAL	SEQ-IBL1	1	10/18/2017 10:25:31	87582-1.RAW	10:25:31 AM	12.10			1.1	0.006	0.006	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	10/18/2017 10:29:39	87583-1.RAW	10:29:39 AM	12.03			1.0	0.006	0.006	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	10/18/2017 10:33:47	87584-1.RAW	10:33:47 AM	8.90			-2.1	-0.011	-0.011	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	10/18/2017 10:37:56	87585-1.RAW	10:37:56 AM	106.39			95.4	0.518	0.518	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	10/18/2017 10:42:04	87586-1.RAW	10:42:04 AM	200.22			189.2	1.028	1.028	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	10/18/2017 10:46:13	87587-1.RAW	10:46:13 AM	930.46			919.5	4.997	4.997	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	10/18/2017 10:50:21	87588-1.RAW	10:50:21 AM	3604.84			3593.8	19.533	19.533	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	10/18/2017 10:54:30	87589-1.RAW	10:54:30 AM	7065.80			7054.8	38.344	38.344	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	10/18/2017 10:58:38	87590-1.RAW	10:58:38 AM	947.05			936.0	5.088	5.088	ng/L	
Hg2600-2	DM2	BLK	F710289-BLK1	20	10/18/2017 11:02:47	87591-1.RAW	11:02:47 AM	29.93	1		18.9	0.103	2.057	ng/L	
Hg2600-2	DM2	BLK	F710289-BLK2	20	10/18/2017 11:06:55	87592-1.RAW	11:06:55 AM	21.19	1		10.2	0.055	1.107	ng/L	
Hg2600-2	DM2	BLK	F710289-BLK3	20	10/18/2017 11:11:03	87593-1.RAW	11:11:03 AM	18.92	1		7.9	0.043	0.860	ng/L	
Hg2600-2	DM2	SAM	*F710289-BLK4	20	10/18/2017 11:15:12	87594-1.RAW	11:15:12 AM	19.30	1		8.3	-0.022	-0.440	ng/L	
Hg2600-2	DM2	SAM	*F710289-BLK5	20	10/18/2017 11:19:20	87595-1.RAW	11:19:20 AM	18.60	1		7.6	-0.026	-0.516	ng/L	
Hg2600-2	DM2	SAM	*F710289-BLK6	20	10/18/2017 11:23:29	87596-1.RAW	11:23:29 AM	14.45	1		3.4	-0.048	-0.967	ng/L	
Hg2600-2	DM2	SAM	*F710289-BLK7	20	10/18/2017 11:27:37	87597-1.RAW	11:27:37 AM	15.07	1		4.1	-0.045	-0.900	ng/L	
Hg2600-2	DM2	SAM	F710289-BS1	20	10/18/2017 11:31:46	87598-1.RAW	11:31:46 AM	939.34	1		928.3	4.979	99.573	ng/L	
Hg2600-2	DM2	SAM	F710289-BSD1	20	10/18/2017 11:35:54	87599-1.RAW	11:35:54 AM	943.91	1		932.9	5.003	100.070	ng/L	
Hg2600-2	DM2	SAM	F710289-BS2	400	10/18/2017 11:40:03	87600-1.RAW	11:40:03 AM	948.71	1		937.7	5.093	2037.305	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	10/18/2017 11:44:11	87601-1.RAW	11:44:11 AM	894.56			883.5	4.802	4.802	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	10/18/2017 11:48:19	87602-1.RAW	11:48:19 AM	18.46			7.4	0.040	0.040	ng/L	
Hg2600-2	DM2	SAM	1709627-19	100	10/18/2017 11:52:28	87603-1.RAW	11:52:28 AM	196.30	1		185.3	0.994	99.369	ng/L	
Hg2600-2	DM2	SAM	1709627-20	100	10/18/2017 11:56:36	87604-1.RAW	11:56:36 AM	184.03	1		173.0	0.927	92.700	ng/L	
Hg2600-2	DM2	SAM	1709628-01	100	10/18/2017 12:00:45	87605-1.RAW	12:00:45 PM	1870.25	1		1859.2	10.092	1009.194	ng/L	
Hg2600-2	DM2	SAM	1709628-02	100	10/18/2017 12:04:53	87606-1.RAW	12:04:53 PM	2781.65	1		2770.6	15.046	1504.564	ng/L	
Hg2600-2	DM2	SAM	1709628-03	100	10/18/2017 12:09:02	87607-1.RAW	12:09:02 PM	2703.17	1		2692.2	14.619	1461.907	ng/L	
Hg2600-2	DM2	SAM	1709628-04	100	10/18/2017 12:13:10	87608-1.RAW	12:13:10 PM	2895.15	1		2884.1	15.663	1566.254	ng/L	
Hg2600-2	DM2	SAM	1709628-05	100	10/18/2017 12:17:19	87609-1.RAW	12:17:19 PM	2321.52	1		2310.5	12.545	1254.469	ng/L	
Hg2600-2	DM2	SAM	1709628-06	100	10/18/2017 12:21:27	87610-1.RAW	12:21:27 PM	1644.53	1		1633.5	8.865	886.512	ng/L	
Hg2600-2	DM2	SAM	1709628-07	100	10/18/2017 12:25:35	87611-1.RAW	12:25:35 PM	2485.82	1		2474.8	13.438	1343.774	ng/L	
Hg2600-2	DM2	SAM	1709628-08	100	10/18/2017 12:29:44	87612-1.RAW	12:29:44 PM	2620.92	1		2609.9	14.172	1417.199	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	10/18/2017 12:33:52	87613-1.RAW	12:33:52 PM	915.74			904.7	4.917	4.917	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	10/18/2017 12:38:01	87614-1.RAW	12:38:01 PM	32.72			21.7	0.118	0.118	ng/L	
Hg2600-2	DM2	SAM	1709627-19RE1	20	10/18/2017 12:42:09	87615-1.RAW	12:42:09 PM	931.62	1		920.6	4.937	98.733	ng/L	
Hg2600-2	DM2	SAM	1709627-20RE1	20	10/18/2017 12:46:18	87616-1.RAW	12:46:18 PM	839.79	1		828.8	4.438	88.751	ng/L	
Hg2600-2	DM2	SAM	1709628-09	100	10/18/2017 12:50:26	87617-1.RAW	12:50:26 PM	2679.55	1		2668.5	14.491	1449.067	ng/L	
Hg2600-2	DM2	SAM	1709628-10	100	10/18/2017 12:54:35	87618-1.RAW	12:54:35 PM	2351.94	1		2340.9	12.710	1271.005	ng/L	
Hg2600-2	DM2	SAM	1709628-11	100	10/18/2017 12:58:43	87619-1.RAW	12:58:43 PM	4250.83	1		4239.8	23.031	2303.092	ng/L	
Hg2600-2	DM2	SAM	1709628-12	100	10/18/2017 13:02:51	87620-1.RAW	1:02:51 PM	2203.43	1		2192.4	11.903	1190.285	ng/L	
Hg2600-2	DM2	SAM	1709628-13	100	10/18/2017 13:07:00	87621-1.RAW	1:07:00 PM	1856.08	1		1845.1	10.015	1001.492	ng/L	
Hg2600-2	DM2	SAM	1709628-14	100	10/18/2017 13:11:08	87622-1.RAW	1:11:08 PM	2150.55	1		2139.5	11.615	1161.547	ng/L	
Hg2600-2	DM2	SAM	1709628-16	100	10/18/2017 13:15:17	87623-1.RAW	1:15:17 PM	5089.43	1		5078.4	27.589	2758.888	ng/L	
Hg2600-2	DM2	SAM	1709628-18	100	10/18/2017 13:19:25	87624-1.RAW	1:19:25 PM	2034.26	1		2023.2	10.983	1098.337	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	10/18/2017 13:23:34	87625-1.RAW	1:23:34 PM	950.96			939.9	5.109	5.109	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	10/18/2017 13:27:42	87626-1.RAW	1:27:42 PM	30.14			19.1	0.104	0.104	ng/L	
Hg2600-2	DM2	SAM	F710289-DUP1	20	10/18/2017 13:31:50	87627-1.RAW	1:31:50 PM	990.09	1		979.1	5.254	105.089	ng/L	
Hg2600-2	DM2	SAM	F710289-MS1	400	10/18/2017 13:35:59	87628-1.RAW	1:35:59 PM	2165.49	1		2154.5	11.707	4682.689	ng/L	
Hg2600-2	DM2	SAM	F710289-MSD1	400	10/18/2017 13:40:07	87629-1.RAW	1:40:07 PM	2044.29	1		2033.3	11.048	4419.182	ng/L	
Hg2600-2	DM2	SAM	F710289-MS2	400	10/18/2017 13:44:16	87630-1.RAW	1:44:16 PM	2653.93	1		2642.9	14.362	5744.602	ng/L	
Hg2600-2	DM2	SAM	F710289-MSD2	400	10/18/2017 13:48:24	87631-1.RAW	1:48:24 PM	2489.50	1		2478.5	13.468	5387.103	ng/L	
Hg2600-2	DM2	BLK	F710290-BLK1	20	10/18/2017 13:52:33	87632-1.RAW	1:52:33 PM	44.45	2		33.4	0.182	3.635	ng/L	
Hg2600-2	DM2	BLK	F710290-BLK2	20	10/18/2017 13:56:41	87633-1.RAW	1:56:41 PM	26.07	2		15.1	0.082	1.637	ng/L	
Hg2600-2	DM2	BLK	F710290-BLK3	20	10/18/2017 14:00:50	87634-1.RAW	2:00:50 PM	24.53	2		13.5	0.073	1.470	ng/L	
Hg2600-2	DM2	SAM	*F710290-BLK4	20	10/18/2017 14:04:58	87635-1.RAW	2:04:58 PM	24.64	2		13.6	-0.038	-0.766	ng/L	
Hg2600-2	DM2	SAM	*F710290-BLK5	20	10/18/2017 14:09:07	87636-1.RAW	2:09:07 PM	27.39	2		16.4	-0.023	-0.467	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	10/18/2017 14:13:15	87637-1.RAW	2:13:15 PM	917.23			906.2	4.926	4.926	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	10/18/2017 14:17:23	87638-1.RAW	2:17:23 PM	19.60			8.6	0.047	0.047	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-2	DM2	SAM	F710290-BS1	20	10/18/2017 14:21:32	87639-1.RAW	2:21:32 PM	987.19	2		976.2	5.193	103.868	ng/L	
Hg2600-2	DM2	SAM	F710290-BSD1	20	10/18/2017 14:25:40	87640-1.RAW	2:25:40 PM	959.39	2		948.4	5.042	100.846	ng/L	
Hg2600-2	DM2	SAM	F710290-BS2	400	10/18/2017 14:29:49	87641-1.RAW	2:29:49 PM	978.66	2		967.6	5.254	2101.506	ng/L	
Hg2600-2	DM2	SAM	1709628-19	100	10/18/2017 14:33:57	87642-1.RAW	2:33:57 PM	2145.19	2		2134.2	11.577	1157.724	ng/L	
Hg2600-2	DM2	SAM	1709628-20	100	10/18/2017 14:38:06	87643-1.RAW	2:38:06 PM	1892.34	2		1881.3	10.203	1020.296	ng/L	
Hg2600-2	DM2	SAM	1709629-01	100	10/18/2017 14:42:14	87644-1.RAW	2:42:14 PM	1268.29	2		1257.3	6.811	681.110	ng/L	
Hg2600-2	DM2	SAM	1709629-02	100	10/18/2017 14:46:22	87645-1.RAW	2:46:22 PM	1404.87	2		1393.9	7.553	755.345	ng/L	
Hg2600-2	DM2	SAM	1709629-03	100	10/18/2017 14:50:31	87646-1.RAW	2:50:31 PM	2192.11	2		2181.1	11.832	1183.226	ng/L	
Hg2600-2	DM2	SAM	1709629-04	100	10/18/2017 14:54:39	87647-1.RAW	2:54:39 PM	2752.51	2		2741.5	14.878	1487.816	ng/L	
Hg2600-2	DM2	SAM	1709629-05	100	10/18/2017 14:58:48	87648-1.RAW	2:58:48 PM	1323.04	2		1312.0	7.109	710.868	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	10/18/2017 15:02:56	87649-1.RAW	3:02:56 PM	927.0553255			916.0	4.979	4.979	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	10/18/2017 15:07:05	87650-1.RAW	3:07:05 PM	24.22			13.2	0.072	0.072	ng/L	
Hg2600-2	DM2	SAM	1709629-06	100	10/18/2017 15:11:13	87651-1.RAW	3:11:13 PM	2721.72	2		2710.7	14.711	1471.081	ng/L	
Hg2600-2	DM2	SAM	1709629-07	100	10/18/2017 15:15:22	87652-1.RAW	3:15:22 PM	2964.81	2		2953.8	16.032	1603.207	ng/L	
Hg2600-2	DM2	SAM	1709629-08	100	10/18/2017 15:19:30	87653-1.RAW	3:19:30 PM	946.45	2		935.4	5.062	506.187	ng/L	
Hg2600-2	DM2	SAM	1709629-09	100	10/18/2017 15:23:38	87654-1.RAW	3:23:38 PM	1763.79	2		1752.8	9.504	950.425	ng/L	
Hg2600-2	DM2	SAM	1709629-10	100	10/18/2017 15:27:47	87655-1.RAW	3:27:47 PM	3279.27	2		3268.3	17.741	1774.120	ng/L	
Hg2600-2	DM2	SAM	1709629-11	100	10/18/2017 15:31:55	87656-1.RAW	3:31:55 PM	4435.34	2		4424.3	24.025	2402.471	ng/L	
Hg2600-2	DM2	SAM	1709629-12	100	10/18/2017 15:36:04	87657-1.RAW	3:36:04 PM	2417.28	2		2406.3	13.056	1305.613	ng/L	
Hg2600-2	DM2	SAM	1709629-13	100	10/18/2017 15:40:12	87658-1.RAW	3:40:12 PM	2039.83	2		2028.8	11.005	1100.463	ng/L	
Hg2600-2	DM2	SAM	1709629-14	100	10/18/2017 15:44:21	87659-1.RAW	3:44:21 PM	4696.18	2		4685.2	25.442	2544.246	ng/L	
Hg2600-2	DM2	SAM	1709629-15	100	10/18/2017 15:48:29	87660-1.RAW	3:48:29 PM	2867.19	2		2856.2	15.501	1550.150	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	10/18/2017 15:52:38	87661-1.RAW	3:52:38 PM	924.92			913.9	4.967	4.967	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	10/18/2017 15:56:46	87662-1.RAW	3:56:46 PM	31.96			20.9	0.114	0.114	ng/L	
Hg2600-2	DM2	SAM	1709629-16	100	10/18/2017 16:00:54	87663-1.RAW	4:00:54 PM	1347.99	2		1337.0	7.244	724.432	ng/L	
Hg2600-2	DM2	SAM	1709629-17	100	10/18/2017 16:05:03	87664-1.RAW	4:05:03 PM	2186.77	2		2175.8	11.803	1180.327	ng/L	
Hg2600-2	DM2	SAM	1709629-18	100	10/18/2017 16:09:11	87665-1.RAW	4:09:11 PM	2077.26	2		2066.2	11.208	1120.804	ng/L	
Hg2600-2	DM2	SAM	F710290-DUP1	100	10/18/2017 16:13:20	87666-1.RAW	4:13:20 PM	2283.24	2		2272.2	12.328	1232.762	ng/L	
Hg2600-2	DM2	SAM	F710290-MS1	400	10/18/2017 16:17:28	87667-1.RAW	4:17:28 PM	2697.84	2		2686.8	14.598	5839.148	ng/L	
Hg2600-2	DM2	SAM	F710290-MSD1	400	10/18/2017 16:21:37	87668-1.RAW	4:21:37 PM	2835.05	2		2824.0	15.344	6137.455	ng/L	
Hg2600-2	DM2	SAM	F710290-MS2	400	10/18/2017 16:25:45	87669-1.RAW	4:25:45 PM	2716.77	2		2705.8	14.701	5880.317	ng/L	
Hg2600-2	DM2	SAM	F710290-MSD2	400	10/18/2017 16:29:54	87670-1.RAW	4:29:54 PM	2658.53	2		2647.5	14.384	5753.691	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	10/18/2017 16:34:23	87671-1.RAW	4:34:23 PM	966.58			955.6	5.194	5.194	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	10/18/2017 16:38:31	87672-1.RAW	4:38:31 PM	43.50			32.5	0.177	0.177	ng/L	

TotalMercury EPA1631
 Operat DM BlankSi 11.01 Calib Eqn: Conc = (Area-11.01 Run Date: ##### Blank SD: 1.827159273
 Worksh THg260(CalibFa 183.99 Status: QC Warnings:5/QC E Run Time: 16:30:14 Blank RSD%: 16.59493448
 Method ##### R: 1 R2: 0.9999 CF SD: 6.117588184
 Descrip THg26002-171018-1 CF RSD%: 3.325041618

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	4.22					87578-1.RAW	10:08:57	776.68	Clean	OK	1
ws				11.01	0.13					87579-1.RAW	10:13:05	35.69	Sample	OK	1
ws				11.01	0.03					87580-1.RAW	10:17:14	17.15	Sample	OK	1
ws				11.01	0.01					87581-1.RAW	10:21:22	12.11	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.07					87582-1.RAW	10:25:31	12.10	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.07					87583-1.RAW	10:29:39	12.03	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					87584-1.RAW	10:33:47	8.90	Sample	OK	1
SEQ-CAL1	A4		1	11.01	0.52			103.68		87585-1.RAW	10:37:56	106.39	Sample	OK	1
SEQ-CAL2	A5		1	11.01	1.03			102.84		87586-1.RAW	10:42:04	200.22	Sample	OK	1
SEQ-CAL3	A6		1	11.01	5.00			99.95		87587-1.RAW	10:46:13	930.46	Sample	OK	1
SEQ-CAL4	A7		1	11.01	19.53			97.67		87588-1.RAW	10:50:21	3604.84	Sample	OK	1
SEQ-CAL5	A8		1	11.01	38.34			95.86		87589-1.RAW	10:54:30	7065.80	Sample	OK	1
SEQ-ICV1	A9		1	11.01	5.09			101.75		87590-1.RAW	10:58:38	947.05	Sample	OK	1
F710289-BLK1	A10		20	11.01	2.06					87591-1.RAW	11:02:47	29.93	Sample	OK	1
F710289-BLK2	A11		20	11.01	1.11					87592-1.RAW	11:06:55	21.19	Sample	OK	1
F710289-BLK3	A12		20	11.01	0.86					87593-1.RAW	11:11:03	18.92	Sample	OK	1
*F710289-BLK4	A13		20	11.01	0.90					87594-1.RAW	11:15:12	19.30	Sample	OK	1
*F710289-BLK5	A14		20	11.01	0.83					87595-1.RAW	11:19:20	18.60	Sample	OK	1
*F710289-BLK6	A15		20	11.01	0.37					87596-1.RAW	11:23:29	14.45	Sample	OK	1
*F710289-BLK7	A16		20	11.01	0.44					87597-1.RAW	11:27:37	15.07	Sample	OK	1
F710289-BS1	A17		20	11.01	100.99					87598-1.RAW	11:31:46	939.34	Sample	OK	1
F710289-BSD1	A18		20	11.01	101.41					87599-1.RAW	11:35:54	943.91	Sample	OK	1
F710289-BS2	A19		400	11.01	2038.65					87600-1.RAW	11:40:03	948.71	Sample	OK	1
SEQ-CCV1	A20		1	11.01	4.80			96.05		87601-1.RAW	11:44:11	894.56	Sample	OK	1
SEQ-CCB1	A21		1	11.01	0.04			0.00		87602-1.RAW	11:48:19	18.46	Sample	OK	1
1709627-19	B1		100	11.01	100.71					87603-1.RAW	11:52:28	196.30	Sample	OK	1
1709627-20	B2		100	11.01	94.04					87604-1.RAW	11:56:36	184.03	Sample	OK	1
1709628-01	B3		100	11.01	1010.54					87605-1.RAW	12:00:45	1870.25	Sample	OK	1
1709628-02	B4		100	11.01	1505.90					87606-1.RAW	12:04:53	2781.65	Sample	OK	1
1709628-03	B5		100	11.01	1463.25					87607-1.RAW	12:09:02	2703.17	Sample	OK	1
1709628-04	B6		100	11.01	1567.59					87608-1.RAW	12:13:10	2895.15	Sample	OK	1
1709628-05	B7		100	11.01	1255.81					87609-1.RAW	12:17:19	2321.52	Sample	OK	1
1709628-06	B8		100	11.01	887.85					87610-1.RAW	12:21:27	1644.53	Sample	OK	1
1709628-07	B9		100	11.01	1345.12					87611-1.RAW	12:25:35	2485.82	Sample	OK	1
1709628-08	B10		100	11.01	1418.54					87612-1.RAW	12:29:44	2620.92	Sample	OK	1
SEQ-CCV2	B11		1	11.01	4.92			98.35		87613-1.RAW	12:33:52	915.74	Sample	OK	1
SEQ-CCB2	B12		1	11.01	0.12			0.00		87614-1.RAW	12:38:01	32.72	Sample	OK	1
1709627-19RE1	B13		20	11.01	100.07					87615-1.RAW	12:42:09	931.62	Sample	OK	1
1709627-20RE1	B14		20	11.01	90.09					87616-1.RAW	12:46:18	839.79	Sample	OK	1
1709628-09	B15		100	11.01	1450.41					87617-1.RAW	12:50:26	2679.55	Sample	OK	1
1709628-10	B16		100	11.01	1272.35					87618-1.RAW	12:54:35	2351.94	Sample	OK	1
1709628-11	B17		100	11.01	2304.43					87619-1.RAW	12:58:43	4250.83	Sample	OK	1
1709628-12	B18		100	11.01	1191.63					87620-1.RAW	13:02:51	2203.43	Sample	OK	1

1709628-13	B19	100	11.01	1002.83		87621-1.RAW	13:07:00	1856.08	Sample	OK	1
1709628-14	B20	100	11.01	1162.89		87622-1.RAW	13:11:08	2150.55	Sample	OK	1
1709628-16	B21	100	11.01	2760.23		87623-1.RAW	13:15:17	5089.43	Sample	FB	1
1709628-18	C1	100	11.01	1099.68		87624-1.RAW	13:19:25	2034.26	Sample	OK	1
SEQ-CCV3	C2	1	11.01	5.11	102.18	87625-1.RAW	13:23:34	950.96	Sample	OK	1
SEQ-CCB3	C3	1	11.01	0.10	0.00	87626-1.RAW	13:27:42	30.14	Sample	OK	1
F710289-DUP1	C4	20	11.01	106.43		87627-1.RAW	13:31:50	990.09	Sample	OK	1
F710289-MS1	C5	400	11.01	4684.03	4360.08	87628-1.RAW	13:35:59	2165.49	Sample	OK	1
F710289-MSD1	C6	400	11.01	4420.52		87629-1.RAW	13:40:07	2044.29	Sample	OK	1
F710289-MS2	C7	400	11.01	5745.94	129.92	87630-1.RAW	13:44:16	2653.93	Sample	OK	1
F710289-MSD2	C8	400	11.01	5388.44		87631-1.RAW	13:48:24	2489.50	Sample	OK	1
F710290-BLK1	C9	20	11.01	3.64		87632-1.RAW	13:52:33	44.45	Sample	OK	1
F710290-BLK2	C10	20	11.01	1.64		87633-1.RAW	13:56:41	26.07	Sample	OK	1
F710290-BLK3	C11	20	11.01	1.47		87634-1.RAW	14:00:50	24.53	Sample	OK	1
*F710290-BLK4	C12	20	11.01	1.48		87635-1.RAW	14:04:58	24.64	Sample	OK	1
*F710290-BLK5	C13	20	11.01	1.78		87636-1.RAW	14:09:07	27.39	Sample	OK	1
SEQ-CCV4	C14	1	11.01	4.93	98.51	87637-1.RAW	14:13:15	917.23	Sample	OK	1
SEQ-CCB4	C15	1	11.01	0.05	0.00	87638-1.RAW	14:17:23	19.60	Sample	OK	1
F710290-BS1	C16	20	11.01	106.12		87639-1.RAW	14:21:32	987.19	Sample	OK	1
F710290-BSD1	C17	20	11.01	103.09		87640-1.RAW	14:25:40	959.39	Sample	OK	1
F710290-BS2	C18	400	11.01	2103.75		87641-1.RAW	14:29:49	978.66	Sample	OK	1
1709628-19	C19	100	11.01	1159.97		87642-1.RAW	14:33:57	2145.19	Sample	OK	1
1709628-20	C20	100	11.01	1022.54		87643-1.RAW	14:38:06	1892.34	Sample	OK	1
1709629-01	C21	100	11.01	683.36		87644-1.RAW	14:42:14	1268.29	Sample	OK	1
1709629-02	A1	100	11.01	757.59		87645-1.RAW	14:46:22	1404.87	Sample	OK	1
1709629-03	A2	100	11.01	1185.47		87646-1.RAW	14:50:31	2192.11	Sample	OK	1
1709629-04	A3	100	11.01	1490.06		87647-1.RAW	14:54:39	2752.51	Sample	OK	1
1709629-05	A4	100	11.01	713.12		87648-1.RAW	14:58:48	1323.04	Sample	OK	1
SEQ-CCV5	A5	1	11.01	4.98	99.58	87649-1.RAW	15:02:56	927.06	Sample	OK	1
SEQ-CCB5	A6	1	11.01	0.07	0.00	87650-1.RAW	15:07:05	24.22	Sample	OK	1
1709629-06	A7	100	11.01	1473.33		87651-1.RAW	15:11:13	2721.72	Sample	OK	1
1709629-07	A8	100	11.01	1605.45		87652-1.RAW	15:15:22	2964.81	Sample	OK	1
1709629-08	A9	100	11.01	508.43		87653-1.RAW	15:19:30	946.45	Sample	OK	1
1709629-09	A10	100	11.01	952.67		87654-1.RAW	15:23:38	1763.79	Sample	OK	1
1709629-10	A11	100	11.01	1776.37		87655-1.RAW	15:27:47	3279.27	Sample	OK	1
1709629-11	A12	100	11.01	2404.72		87656-1.RAW	15:31:55	4435.34	Sample	OK	1
1709629-12	A13	100	11.01	1307.86		87657-1.RAW	15:36:04	2417.28	Sample	OK	1
1709629-13	A14	100	11.01	1102.71		87658-1.RAW	15:40:12	2039.83	Sample	OK	1
1709629-14	A15	100	11.01	2546.49		87659-1.RAW	15:44:21	4696.18	Sample	OK	1
1709629-15	A16	100	11.01	1552.40		87660-1.RAW	15:48:29	2867.19	Sample	OK	1
SEQ-CCV6	A17	1	11.01	4.97	99.35	87661-1.RAW	15:52:38	924.92	Sample	OK	1
SEQ-CCB6	A18	1	11.01	0.11	0.00	87662-1.RAW	15:56:46	31.96	Sample	OK	1
1709629-16	A19	100	11.01	726.68		87663-1.RAW	16:00:54	1347.99	Sample	OK	1
1709629-17	A20	100	11.01	1182.57		87664-1.RAW	16:05:03	2186.77	Sample	OK	1
1709629-18	A21	100	11.01	1123.05		87665-1.RAW	16:09:11	2077.26	Sample	OK	1
F710290-DUP1	B1	100	11.01	1235.01		87666-1.RAW	16:13:20	2283.24	Sample	OK	1
F710290-MS1	B2	400	11.01	5841.39	472.60	87667-1.RAW	16:17:28	2697.84	Sample	OK	1
F710290-MSD1	B3	400	11.01	6139.70		87668-1.RAW	16:21:37	2835.05	Sample	OK	1

F710290-MS2	B4	400	11.01	5882.56	95.78	87669-1.RAW	16:25:45	2716.77	Sample	OK	1
F710290-MSD2	B5	400	11.01	5755.94		87670-1.RAW	16:29:54	2658.53	Sample	OK	1
SEQ-CCV7	B6	1	11.01	5.19	103.87	87671-1.RAW	16:34:23	966.58	Sample	OK	1
SEQ-CCB7	B7	1	11.01	0.18	0.00	87672-1.RAW	16:38:31	43.50	Sample	OK	1

ANALYSIS SEQUENCE

7J19011

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/18/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J19011-IBL1	QC	1			
7J19011-IBL2	QC	2			
7J19011-IBL3	QC	3			
7J19011-CAL1	QC	4	1704505		
7J19011-CAL2	QC	5	1704506		
7J19011-CAL3	QC	6	1704507		
7J19011-CAL4	QC	7	1704508		
7J19011-CAL5	QC	8	1704509		
7J19011-ICV1	QC	9	1705628		
F710289-BLK1	QC	10			
F710289-BLK2	QC	11			
F710289-BLK3	QC	12			
F710289-BLK4	QC	13			
F710289-BLK5	QC	14			
F710289-BLK6	QC	15			
F710289-BLK7	QC	16			
F710289-BS1	QC	17			
F710289-BSD1	QC	18			
F710289-BS2	QC	19			
7J19011-CCV1	QC	20	1705628		
7J19011-CCB1	QC	21			
1709627-19	Hg-CVAFS-T-7030	22			
1709627-20	Hg-CVAFS-T-7030	23			
1709628-01	Hg-CVAFS-T-7030	24			
1709628-02	Hg-CVAFS-T-7030	25			
1709628-03	Hg-CVAFS-T-7030	26			
1709628-04	Hg-CVAFS-T-7030	27			
1709628-05	Hg-CVAFS-T-7030	28			
1709628-06	Hg-CVAFS-T-7030	29			
1709628-07	Hg-CVAFS-T-7030	30			
1709628-08	Hg-CVAFS-T-7030	31			
7J19011-CCV2	QC	32	1705628		
7J19011-CCB2	QC	33			
1709627-19RE1	Hg-CVAFS-T-7030	34			Added 10/19/2017 by DM2
1709627-20RE1	Hg-CVAFS-T-7030	35			Added 10/19/2017 by DM2

Due Date: 10/20/2017

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ANALYSIS SEQUENCE

7J19011

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/18/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709628-09	Hg-CVAFS-T-7030	36			
1709628-10	Hg-CVAFS-T-7030	37			
1709628-11	Hg-CVAFS-T-7030	38			
1709628-12	Hg-CVAFS-T-7030	39			
1709628-13	Hg-CVAFS-T-7030	40			
1709628-14	Hg-CVAFS-T-7030	41			
1709628-16	Hg-CVAFS-T-7030	42			
1709628-18	Hg-CVAFS-T-7030	43			
7J19011-CCV3	QC	44	1705628		
7J19011-CCB3	QC	45			
F710289-DUP1	QC	46			
F710289-MS1	QC	47			
F710289-MSD1	QC	48			
F710289-MS2	QC	49			
F710289-MSD2	QC	50			
F710290-BLK1	QC	51			
F710290-BLK2	QC	52			
F710290-BLK3	QC	53			
F710290-BLK4	QC	54			
F710290-BLK5	QC	55			
7J19011-CCV4	QC	56	1705628		
7J19011-CCB4	QC	57			
F710290-BS1	QC	58			
F710290-BSD1	QC	59			
F710290-BS2	QC	60			
1709628-19	Hg-CVAFS-T-7030	61			
1709628-20	Hg-CVAFS-T-7030	62			
1709629-01	Hg-CVAFS-T-7030	63			
1709629-02	Hg-CVAFS-T-7030	64			
1709629-03	Hg-CVAFS-T-7030	65			
1709629-04	Hg-CVAFS-T-7030	66			
1709629-05	Hg-CVAFS-T-7030	67			
7J19011-CCV5	QC	68	1705628		
7J19011-CCB5	QC	69			
1709629-06	Hg-CVAFS-T-7030	70			

Due Date: 10/20/2017

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ANALYSIS SEQUENCE

7J19011

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/18/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709629-07	Hg-CVAFS-T-7030	71			
1709629-08	Hg-CVAFS-T-7030	72			
1709629-09	Hg-CVAFS-T-7030	73			
1709629-10	Hg-CVAFS-T-7030	74			
1709629-11	Hg-CVAFS-T-7030	75			
1709629-12	Hg-CVAFS-T-7030	76			
1709629-13	Hg-CVAFS-T-7030	77			
1709629-14	Hg-CVAFS-T-7030	78			
1709629-15	Hg-CVAFS-T-7030	79			
7J19011-CCV6	QC	80	1705628		
7J19011-CCB6	QC	81			
1709629-16	Hg-CVAFS-T-7030	82			
1709629-17	Hg-CVAFS-T-7030	83			
1709629-18	Hg-CVAFS-T-7030	84			
F710290-DUP1	QC	85			
F710290-MS1	QC	86			
F710290-MSD1	QC	87			
F710290-MS2	QC	88			
F710290-MSD2	QC	89			
7J19011-CCV7	QC	90	1705628		
7J19011-CCB7	QC	91			

Don Mottram 10/18/17
 Samples Loaded By Date

Don Mottram 10/19/17
 Data Processed By Date

PREPARATION BENCH SHEET

F710289

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710289-BLK1	Blank	0.25	20					
F710289-BLK2	Blank	0.25	20					
F710289-BLK3	Blank	0.25	20					
F710289-BLK4	Blank	0.285	20					Pre-homogenization Blank for 1709627
F710289-BLK5	Blank	0.26	20					Post-homogenization Blank for 1709627
F710289-BLK6	Blank	0.281	20					Pre-homogenization Blank for 1709628
F710289-BLK7	Blank	0.288	20					Post-homogenization Blank for 1709628
F710289-BS1	LCS	0.25	20	1704421	20			
F710289-BS2	DORM4	0.1285	20	1705412	128.5			
F710289-BSD1	LCS Dup	0.25	20	1704421	20			
F710289-DUP1	Duplicate [1709627-19RE1]	0.271	20					
F710289-MS1	Matrix Spike [1709627-19RE1]	0.257	20	1705554	100			
F710289-MS2	Matrix Spike [1709628-01]	0.275	20	1705554	100			
F710289-MSD1	Matrix Spike Dup [1709627-19RE1]	0.261	20	1705554	100			
F710289-MSD2	Matrix Spike Dup [1709628-01]	0.272	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705927	70/30 Digestion Acid	02-Apr-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00
			1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

PREPARATION BENCH SHEET

F710289

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709627-19	FRB-01_17HC001_091317_BLM_19_WB	0.257	20	-	-	-		
1709627-19RE1	FRB-01_17HC001_091317_BLM_19_WB	0.257	20	-	-	-	Added 10/19/2017 by DM2	Added 10/19/2017 by DM2
1709627-20	FRB-01_17HC001_091317_BLM_20_WB	0.253	20	-	-	-		
1709627-20RE1	FRB-01_17HC001_091317_BLM_20_WB	0.253	20	-	-	-	Added 10/19/2017 by DM2	Added 10/19/2017 by DM2
1709628-01	ES-03_17HC001_091917_BLM_01_WB	0.269	20	QC	-	-	MS/MSD	
1709628-02	ES-03_17HC001_091917_BLM_02_WB	0.272	20	-	-	-		
1709628-03	ES-03_17HC001_091917_BLM_03_WB	0.252	20	-	-	-		
1709628-04	ES-03_17HC001_091917_BLM_04_WB	0.255	20	-	-	-		
1709628-05	ES-03_17HC001_091917_BLM_05_WB	0.257	20	-	-	-		
1709628-06	ES-03_17HC001_091917_BLM_06_WB	0.279	20	-	-	-		
1709628-07	ES-03_17HC001_091917_BLM_07_WB	0.281	20	-	-	-		
1709628-08	ES-03_17HC001_091917_BLM_08_WB	0.273	20	-	-	-		
1709628-09	ES-03_17HC001_091917_BLM_09_WB	0.282	20	-	-	-		
1709628-10	ES-03_17HC001_091917_BLM_10_WB	0.285	20	-	-	-		
1709628-11	ES-03_17HC001_091917_BLM_11_WB	0.288	20	-	-	-		
1709628-12	ES-03_17HC001_091917_BLM_12_WB	0.258	20	-	-	-		
1709628-13	ES-03_17HC001_091917_BLM_13_WB	0.275	20	-	-	-		
1709628-14	ES-03_17HC001_091917_BLM_14_WB	0.262	20	-	-	-		
1709628-16	ES-03_17HC001_091917_BLM_16_WB	0.267	20	-	-	-		

PREPARATION BENCH SHEET

F710289

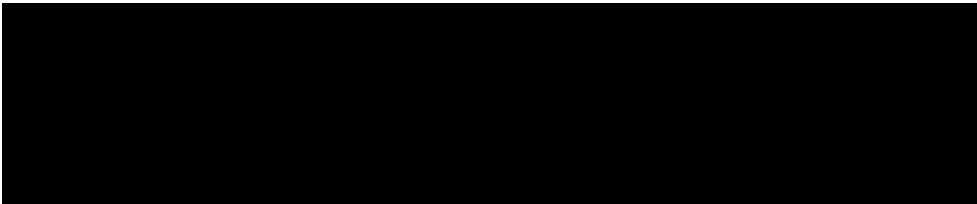
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709628-18	ES-03_17HC001_091917_BLM_18_WB	0.276	20	-	-	-		
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PREPARATION BENCH SHEET

F710290

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710290-BLK1	Blank	0.25	20					
F710290-BLK2	Blank	0.25	20					
F710290-BLK3	Blank	0.25	20					
F710290-BLK4	Blank	0.289	20					Pre-homogenization Blank for 1709629
F710290-BLK5	Blank	0.292	20					Post-homogenization Blank for 1709629
F710290-BS1	LCS	0.25	20	1704421	20			
F710290-BS2	DORM4	0.1267	20	1705412	126.7			
F710290-BSD1	LCS Dup	0.25	20	1704421	20			
F710290-DUP1	Duplicate [1709628-19]	0.283	20					
F710290-MS1	Matrix Spike [1709628-19]	0.263	20	1705554	100			
F710290-MS2	Matrix Spike [1709629-01]	0.264	20	1705554	100			
F710290-MSD1	Matrix Spike Dup [1709628-19]	0.278	20	1705554	100			
F710290-MSD2	Matrix Spike Dup [1709629-01]	0.276	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705927	70/30 Digestion Acid	02-Apr-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00
			1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

PREPARATION BENCH SHEET

F710290

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709628-19	ES-03_17HC001_091917_BLM_19_WB	0.269	20	-	-	-		
1709628-20	ES-03_17HC001_091917_BLM_20_WB	0.269	20	-	-	-		
1709629-01	ES-FP_17HC001_091917_BLM_01_WB	0.279	20	QC	-	-	MS/MSD	
1709629-02	ES-FP_17HC001_091917_BLM_02_WB	0.26	20	-	-	-		
1709629-03	ES-FP_17HC001_091917_BLM_03_WB	0.289	20	-	-	-		
1709629-04	ES-FP_17HC001_091917_BLM_04_WB	0.265	20	-	-	-		
1709629-05	ES-FP_17HC001_091917_BLM_05_WB	0.268	20	-	-	-		
1709629-06	ES-FP_17HC001_091917_BLM_06_WB	0.257	20	-	-	-		
1709629-07	ES-FP_17HC001_091917_BLM_07_WB	0.279	20	-	-	-		
1709629-08	ES-FP_17HC001_091917_BLM_08_WB	0.259	20	-	-	-		
1709629-09	ES-FP_17HC001_091917_BLM_09_WB	0.259	20	-	-	-		
1709629-10	ES-FP_17HC001_091917_BLM_10_WB	0.253	20	-	-	-		
1709629-11	ES-FP_17HC001_091917_BLM_11_WB	0.286	20	-	-	-		
1709629-12	ES-FP_17HC001_091917_BLM_12_WB	0.27	20	-	-	-		
1709629-13	ES-FP_17HC001_091917_BLM_13_WB	0.253	20	-	-	-		
1709629-14	ES-FP_17HC001_091917_BLM_14_WB	0.281	20	-	-	-		
1709629-15	ES-FP_17HC001_091917_BLM_15_WB	0.254	20	-	-	-		
1709629-16	ES-FP_17HC001_091917_BLM_16_WB	0.259	20	-	-	-		
1709629-17	ES-FP_17HC001_091917_BLM_17_WB	0.258	20	-	-	-		

PREPARATION BENCH SHEET

F710290

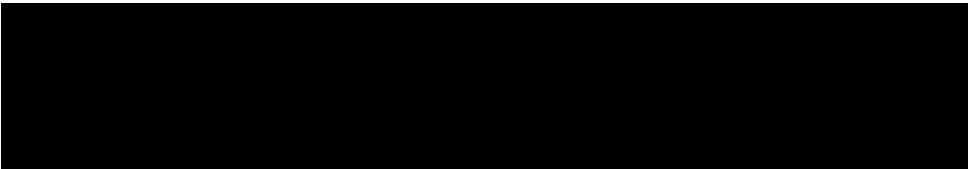
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709629-18	ES-FP_17HC001_091917_BLM_18_WB	0.273	20	-	-	-		
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PREPARATION BENCH SHEET

2600-2
10/18/17 DM

F710289

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710289-BLK1	Blank	0.25	20					20X
F710289-BLK2	Blank	0.25	20					20X
F710289-BLK3	Blank	0.25	20					20X
F710289-BLK4	Blank	0.285	20					Pre-homogenization Blank for 1709627 20X
F710289-BLK5	Blank	0.26	20					Post-homogenization Blank for 1709627 20X
F710289-BLK6	Blank	0.281	20					Pre-homogenization Blank for 1709628 20X
F710289-BLK7	Blank	0.288	20					Post-homogenization Blank for 1709628 20X
F710289-BS1	LCS	0.25	20	1704421	20			20X
F710289-BS2	DORM4	0.1285	20	1705412	128.5			400X
F710289-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710289-DUP1	Duplicate [1709627-19] RE1	0.271	20					20X
F710289-MS1	Matrix Spike [1709627-19] RE1	0.257	20	1705554	100			400X
F710289-MS2	Matrix Spike [1709628-01]	0.275	20	1705554	100			400X
F710289-MSD1	Matrix Spike Dup [1709627-19] RE1	0.261	20	1705554	100			400X
F710289-MSD2	Matrix Spike Dup [1709628-01]	0.272	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705927	70/30 Digestion Acid	02-Apr-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706079	5% BrCl	14-Mar-18 00:00

1705610
1705611
1705182
1706142

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600.2
10/18/17 DM

F710289

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments DM 10/18/17
1709627-19	FRB-01_17HC001_091317_BLM_19_WB	0.257	20	-	-	-		100X → 50X 20X
1709627-20	FRB-01_17HC001_091317_BLM_20_WB	0.253	20	-	-	-		100X → 50X 20X
1709628-01	ES-03_17HC001_091917_BLM_01_WB	0.269	20	QC	-	-	MS/MSD	100X
1709628-02	ES-03_17HC001_091917_BLM_02_WB	0.272	20	-	-	-		100X
1709628-03	ES-03_17HC001_091917_BLM_03_WB	0.252	20	-	-	-		100X
1709628-04	ES-03_17HC001_091917_BLM_04_WB	0.255	20	-	-	-		100X
1709628-05	ES-03_17HC001_091917_BLM_05_WB	0.257	20	-	-	-		100X
1709628-06	ES-03_17HC001_091917_BLM_06_WB	0.279	20	-	-	-		100X
1709628-07	ES-03_17HC001_091917_BLM_07_WB	0.281	20	-	-	-		100X
1709628-08	ES-03_17HC001_091917_BLM_08_WB	0.273	20	-	-	-		100X
1709628-09	ES-03_17HC001_091917_BLM_09_WB	0.282	20	-	-	-		100X
1709628-10	ES-03_17HC001_091917_BLM_10_WB	0.285	20	-	-	-		100X
1709628-11	ES-03_17HC001_091917_BLM_11_WB	0.288	20	-	-	-		100X
1709628-12	ES-03_17HC001_091917_BLM_12_WB	0.258	20	-	-	-		100X
1709628-13	ES-03_17HC001_091917_BLM_13_WB	0.275	20	-	-	-		100X
1709628-14	ES-03_17HC001_091917_BLM_14_WB	0.262	20	-	-	-		100X
1709628-15	ES-03_17HC001_091917_BLM_15_WB	0.25	20	-	-	-		—
1709628-16	ES-03_17HC001_091917_BLM_16_WB	0.267	20	-	-	-		100X
1709628-18	ES-03_17HC001_091917_BLM_18_WB	0.276	20	-	-	-		100X

PREPARATION BENCH SHEET

F710289

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Due Date: 10/20/2017

Technician: CWF Batch#: F710289 Date: 10/11/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6,19 (DORMU) Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 5:40 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C

Time out: 7:40 Actual Temp. (raw): 85.1 °C w/ CF: 85.1 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1706079) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: R 10/11/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0107852 Calibration Date: 10/9/17

HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1705927 Dispenser #: 0212749 Calibrated? Yes No

Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes No

Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: A2

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710289 - Blk1	0.269	23	1709628 - 06	0.279	BS2 DORMU LIMS: 1705412 Balance: 19
2	F710289 - Blk2	0.259	24	1709628 - 07	0.281	
3	F710289 - Blk3	0.272	25	1709628 - 08	0.273	Comments
4	F710289 - Blk4	0.285	26	1709628 - 09	0.282	
5	F710289 - Blk5	0.260	27	1709628 - 10	0.285	BSV/BSDI spiked with 20µL of 1704421
6	F710289 - Blk6	0.281	28	1709628 - 11	0.288	
7	F710289 - Blk7	0.288	29	1709628 - 12	0.258	DUPI/MSI/MSDS1 source: 1709627 ^{CWF} 1709627 - 19
8	F710289 - BS1	0.279	30	1709628 - 13	0.275	
9	F710289 - BSD1	0.250	31	1709628 - 14	0.262	MS2/MSDS2 source: 1709628-01
10	F710289 - BS2	0.1285	32	1709628 - 16	0.267	
11	1709627 - 19	0.257	33 ^{CWF}	1709628 - 17	0.276	Blk 4 + 5 are Pre/Post blanks for 1709627
12	F710289 - DUPI ^{20/10/17}	0.271	34	1709628 - 18	0.276	
13	F710289 - MS1	0.257	35 ^{CWF}	1709628 - 19	0.269	Blk 6 + 7 are Pre/Post blanks for 1709628
14	F710289 - MSD1	0.261	36 ^{CWF}	Already batched		
15	1709627 - 20	0.253	37			*No Sample 1709628-17, removed from batch.
16	1709628 - 01	0.269	38			
17	F710289 - MS2	0.275	39			<div style="border: 1px solid black; padding: 5px; transform: rotate(-45deg); display: inline-block;">CWF 10/11/17</div>
18	F710289 - MSD2	0.272	40			
19	1709628 - 02	0.272	41			
20	1709628 - 03	0.252	42			
21	1709628 - 04	0.255	43			
22	1709628 - 05	0.297	44			

PREPARATION BENCH SHEET

2600.2
10/18/17 DM

F710290

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710290-BLK1	Blank	0.25	20					20X
F710290-BLK2	Blank	0.25	20					20X
F710290-BLK3	Blank	0.25	20					20X
F710290-BLK4	Blank	0.289	20					Pre-homogenization Blank for 1709629 20X
F710290-BLK5	Blank	0.292	20					Post-homogenization Blank for 1709629 20X
F710290-BS1	LCS	0.25	20	1704421	20			20X
F710290-BS2	DORM4	0.1267	20	1705412	126.7			400X
F710290-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710290-DUP1	Duplicate [1709628-19]	0.283	20					100X
F710290-MS1	Matrix Spike [1709628-19]	0.263	20	1705554	100			400X
F710290-MS2	Matrix Spike [1709629-01]	0.264	20	1705554	100			400X
F710290-MSD1	Matrix Spike Dup [1709628-19]	0.278	20	1705554	100			400X
F710290-MSD2	Matrix Spike Dup [1709629-01]	0.276	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705927	70/30 Digestion Acid	02-Apr-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706079	5% BrCl	14-Mar-18 00:00

1705610
1705611
1703182
1706142

PREPARATION BENCH SHEET

2600-2
10/18/17 DM

F710290

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709628-19	ES-03_17HC001_091917_BLM_19_WB	0.269	20	-	-	-		100x
1709628-20	ES-03_17HC001_091917_BLM_20_WB	0.269	20	-	-	-		100x
1709629-01	ES-FP_17HC001_091917_BLM_01_WB	0.279	20	QC	-	-	MS/MSD	100x
1709629-02	ES-FP_17HC001_091917_BLM_02_WB	0.26	20	-	-	-		100x
1709629-03	ES-FP_17HC001_091917_BLM_03_WB	0.289	20	-	-	-		100x
1709629-04	ES-FP_17HC001_091917_BLM_04_WB	0.265	20	-	-	-		100x
1709629-05	ES-FP_17HC001_091917_BLM_05_WB	0.268	20	-	-	-		100x
1709629-06	ES-FP_17HC001_091917_BLM_06_WB	0.257	20	-	-	-		100x
1709629-07	ES-FP_17HC001_091917_BLM_07_WB	0.279	20	-	-	-		100x
1709629-08	ES-FP_17HC001_091917_BLM_08_WB	0.259	20	-	-	-		100x
1709629-09	ES-FP_17HC001_091917_BLM_09_WB	0.259	20	-	-	-		100x
1709629-10	ES-FP_17HC001_091917_BLM_10_WB	0.253	20	-	-	-		100x
1709629-11	ES-FP_17HC001_091917_BLM_11_WB	0.286	20	-	-	-		100x
1709629-12	ES-FP_17HC001_091917_BLM_12_WB	0.27	20	-	-	-		100x
1709629-13	ES-FP_17HC001_091917_BLM_13_WB	0.253	20	-	-	-		100x
1709629-14	ES-FP_17HC001_091917_BLM_14_WB	0.281	20	-	-	-		100x
1709629-15	ES-FP_17HC001_091917_BLM_15_WB	0.254	20	-	-	-		100x
1709629-16	ES-FP_17HC001_091917_BLM_16_WB	0.259	20	-	-	-		100x
1709629-17	ES-FP_17HC001_091917_BLM_17_WB	0.258	20	-	-	-		100x

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2
10/18/17 DM

F710290

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709629-18	ES-FP_17HC001_091917_BLM_18_WB	0.273	20	-	-	-		100X
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Technician: WF Batch#: F710290 Date: 10/11/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19 (DORM) Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 15:40 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C
 Time out: 17:40 Actual Temp. (raw): 85.1 °C w/ CF: 85.1 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1706079) Spike vol.: 100 µL (LIMS ID: 1705584)
 Spike Witness: A 10/11/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0207852 Calibration Date: 10/9/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705927 Dispenser #: 0262749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: A2

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA	
1	F710290 - BLK1	0.255	23	1709629 - 08	0.259	BS2 = DORMM	
2	F710290 - BLK2	0.265	24	1709629 - 09	0.259	LIMS: 1705412	
3	F710290 - BLK3	0.265	25	1709629 - 10	0.253	Balance: 19	
4	F710290 - BLK4	0.289	26	1709629 - 11	0.286	Comments	
5	F710290 - BLK5	0.292	27	1709629 - 12	0.270		
6	F710290 - BS1	0.280	28	1709629 - 13	0.253	BS1/BSD1 spiked with 20 µL with of ^{MS2/MSD2} ^{MS1/MSD1}	
7	F710290 - BSD1	0.251	29	1709629 - 14	0.281	1704424	
8	F710290 - BS2	0.1267	30	1709629 - 15	0.254	^{MS2/MSD2} source: 1704628	
9	1709628 - 19	0.269	31	1709629 - 16	0.259	1709628-19 w/MS1/MSD1	
10	F710290 - DUP1	0.283	32	1709629 - 17	0.258	MS2/MSD2	
11	F710290 - MS1	0.263	33	1709629 - 18	0.273	source: 1704628 ^{MS2/MSD2} ^{MS1/MSD1}	
12	F710290 - MSD1	0.278	34			1709629-01	
13	1709628 - 20	0.269	35				
14	1709629 - 01	0.279	36				
15	F710290 - MS2	0.264	37				
16	F710290 - MSD2	0.276	38				
17	1709629 - 02	0.260	39				
18	1709629 - 03	0.289	40				
19	1709629 - 04	0.265	41				
20	1709629 - 05	0.268	42				
21	1709629 - 06	0.297	43				
22	1709629 - 07	0.279	44				

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J19011
Reviewer: <u>BC</u> 10/19/17	Dataset ID(s): THG26002-171018-1
Date: 10/19/2017	WO (s) #: 1709627, 1709628, 1709629
Batch #(s): F710289, F710290	

• Select the correct preparation method.

Analyte	Prep Method	Matrix	
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg0	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: DM

Reviewer Initials: BC

- | | | | | |
|---|---|--|-------------------------------------|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?
Naming convention: THG26001-yymmdd-1 or THG26002-yymmdd-1 | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (b) Check 5% of transcription from Instrument print-out and Excel file
Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Check and compare masses (review prep benchsheet) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (e) Check & compare initial & final volumes | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel?
50 ml / aliquot = Excel dilution value | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7J19011
Reviewer:	0 <i>[Signature]</i> 10/19/17	Dataset ID(s):	THG26002-171018-1
Date:	10/19/2017	WO (s) #:	1709627, 1709628, 1709629
Batch #(s):	F710289, F710290		0

Analyst Initials DM

Reviewer Initials BC

5b. Has the B/C section data been uploaded?

YES NO N/A

QA/QC Data Checked

6. RSD CF (≤ 15%)

PASS FAIL

Comments: _____

7. The calibration curve included a minimum of 5 Standards

YES NO

Comments: _____

8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)

PASS FAIL

9. ICV and CCV % Recoveries EPA 1631E (77-123%)

PASS FAIL

Comments: _____

10. Do all calibration points pass acceptance criteria?

YES NO

Comments: _____

11. Are qualifiers consistent with the data review flowcharts?

YES NO N/A

Comments: _____

12. Explain any items on the failed data report from Element

Comments: **NONE**

13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list)

PASS FAIL

(a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:

(b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?

YES NO

(c) Was a BrCl Blank analyzed for each preservation level?

YES NO N/A

(d) Are Preparation Blanks summarized on QC page?

YES NO

14. Filtration Blank Prepared (if yes, use FB qualifier)

YES NO

(a) Filtration Blank prep date same as associated samples' prep date

YES NO N/A

(b) Filtration Blank absolute value < PQL or <2.2xMDL for WI

YES NO N/A

15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?

PASS FAIL

Comments: _____

16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?

PASS FAIL

Comments: _____

17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)

YES NO N/A

18. Is the correct 'Source' designated for MD/MS/MSD?

YES NO

19. For digested preps: was there a spike witness signature & date on the prep bench sheet?

YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7J19011
Reviewer:	0 <i>B/C</i> <i>10/19/17</i>	Dataset ID(s):	THG26002-171018-1
Date:	10/19/2017	WO (s) #:	1709627, 1709628, 1709629
Batch #(s):	F710289, F710290		0

Analyst Initials DM

Reviewer Initials B/C

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
- Files located at:** \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs
- | | | | | |
|---|------------|----------------------------------|---|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ | 11/23/2016 | IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ | 5/20/2016 | Current SOP revision read? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ | 7/28/2017 | LOD within last 3 months? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ | 7/28/2017 | LOQ within last 3 months? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.



Frontier Global Sciences

THg26002-171019-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 19, 2017

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7J20014, 7J20015

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	108.32 units	216.63	101.65 units	203.31	105.5 %Rec
SEQ-CAL2	1	1.00 ng/L	199.04 units	199.04	192.38 units	192.38	99.8 %Rec
SEQ-CAL3	1	5.00 ng/L	987.37 units	197.47	980.71 units	196.14	101.8 %Rec
SEQ-CAL4	1	20.00 ng/L	3699.28 units	184.96	3692.61 units	184.63	95.8 %Rec
SEQ-CAL5	1	40.00 ng/L	7484.41 units	187.11	7477.75 units	186.94	97.0 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 192.68 +/- 7.46 3.9% RSD 197.04

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.66 units	±1.69	0.03 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	2.438 ng/L	±1.107
BLK	2	3	2.016 ng/L	±0.780
BLK	3	3	2.479 ng/L	±1.348
BLK	4	2	4.891 ng/L	±0.561
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: PC 10/20/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	DM2	CAL	SEQ-IBL1	1	10/19/2017 10:28:52	87678-1.RAW	10:28:52 AM	5.84	✓		-0.8	-0.004	-0.004	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	10/19/2017 10:33:00	87679-1.RAW	10:33:00 AM	8.61	✓		1.9	0.010	0.010	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	10/19/2017 10:37:09	87680-1.RAW	10:37:09 AM	5.54	✓		-1.1	-0.006	-0.006	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	10/19/2017 10:41:17	87681-1.RAW	10:41:17 AM	108.32	✓		101.7	0.528	0.528	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	10/19/2017 10:45:26	87682-1.RAW	10:45:26 AM	199.04	✓		192.4	0.998	0.998	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	10/19/2017 10:49:34	87683-1.RAW	10:49:34 AM	987.37	✓		980.7	5.090	5.090	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	10/19/2017 10:53:43	87684-1.RAW	10:53:43 AM	3699.28	✓		3692.6	19.165	19.165	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	10/19/2017 10:57:51	87685-1.RAW	10:57:51 AM	7484.41	✓		7477.8	38.809	38.809	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	10/19/2017 11:01:59	87686-1.RAW	11:01:59 AM	974.06	✓		967.4	5.021	5.021	ng/L	
Hg2600-2	DM2	BLK	F710387-BLK1	20	10/19/2017 11:06:08	87687-1.RAW	11:06:08 AM	42.35	✓	1	35.7	0.185	3.704	ng/L	
Hg2600-2	DM2	BLK	F710387-BLK2	20	10/19/2017 11:10:16	87688-1.RAW	11:10:16 AM	22.57	✓	1	15.9	0.083	1.651	ng/L	
Hg2600-2	DM2	BLK	F710387-BLK3	20	10/19/2017 11:14:25	87689-1.RAW	11:14:25 AM	25.54	✓	1	18.9	0.098	1.960	ng/L	
Hg2600-2	DM2	SAM	F710387-BS1	20	10/19/2017 11:18:33	87690-1.RAW	11:18:33 AM	951.71	✓	1	945.1	4.783	95.657	ng/L	
Hg2600-2	DM2	SAM	F710387-BSD1	20	10/19/2017 11:22:42	87691-1.RAW	11:22:42 AM	889.77	✓	1	883.1	4.461	89.228	ng/L	
Hg2600-2	DM2	SAM	F710387-BS2	400	10/19/2017 11:26:50	87692-1.RAW	11:26:50 AM	935.60	✓	1	928.9	4.815	1926.017	ng/L	
Hg2600-2	DM2	SAM	1709628-15	100	10/19/2017 11:30:58	87693-1.RAW	11:30:58 AM	1918.86	✓	1	1912.2	9.900	989.984	ng/L	
Hg2600-2	DM2	SAM	1709628-16RE1	100	10/19/2017 11:35:07	87694-1.RAW	11:35:07 AM	4854.87	✓	1	4848.0	25.137	2513.664	ng/L	
Hg2600-2	DM2	SAM	1709628-18RE1	100	10/19/2017 11:39:15	87695-1.RAW	11:39:15 AM	2010.02	✓	1	2003.4	10.373	1037.300	ng/L	
Hg2600-2	DM2	SAM	F710387-DUP1	100	10/19/2017 11:43:24	87696-1.RAW	11:43:24 AM	2408.48	✓	1	2401.8	12.441	1244.098	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	10/19/2017 11:47:32	87697-1.RAW	11:47:32 AM	936.66	✓		930.0	4.827	4.827	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	10/19/2017 11:51:40	87698-1.RAW	11:51:40 AM	25.89	✓		19.2	0.100	0.100	ng/L	
Hg2600-2	DM2	SAM	F710387-MS1	400	10/19/2017 11:55:49	87699-1.RAW	11:55:49 AM	2631.12	✓	1	2624.5	13.615	5445.903	ng/L	
Hg2600-2	DM2	SAM	F710387-MSD1	400	10/19/2017 11:59:57	87700-1.RAW	11:59:57 AM	2528.17	✓	1	2521.5	13.080	5232.180	ng/L	
Hg2600-2	DM2	BLK	F710260-BLK1	20	10/19/2017 12:04:06	87701-1.RAW	12:04:06 PM	33.99	✓	2	27.3	0.142	2.837	ng/L	
Hg2600-2	DM2	BLK	F710260-BLK2	20	10/19/2017 12:08:14	87702-1.RAW	12:08:14 PM	25.22	✓	2	18.6	0.096	1.926	ng/L	
Hg2600-2	DM2	BLK	F710260-BLK3	20	10/19/2017 12:12:23	87703-1.RAW	12:12:23 PM	19.04	✓	2	12.4	0.064	1.285	ng/L	
Hg2600-2	DM2	SAM	F710260-BS1	20	10/19/2017 12:16:31	87704-1.RAW	12:16:31 PM	986.77	✓	2	980.1	4.986	99.719	ng/L	
Hg2600-2	DM2	SAM	F710260-BSD1	20	10/19/2017 12:20:39	87705-1.RAW	12:20:39 PM	905.24	✓	2	898.6	4.563	91.255	ng/L	
Hg2600-2	DM2	SAM	F710260-BS2	400	10/19/2017 12:24:48	87706-1.RAW	12:24:48 PM	947.36	✓	2	940.7	4.877	1950.851	ng/L	
Hg2600-2	DM2	SAM	1709624-01	100	10/19/2017 12:28:56	87707-1.RAW	12:28:56 PM	1754.42	✓	2	1747.8	9.051	905.064	ng/L	
Hg2600-2	DM2	SAM	1709624-02	100	10/19/2017 12:33:05	87708-1.RAW	12:33:05 PM	1573.28	✓	2	1566.6	8.111	811.056	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	10/19/2017 12:37:13	87709-1.RAW	12:37:13 PM	899.88	✓		893.2	4.636	4.636	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	10/19/2017 12:41:21	87710-1.RAW	12:41:21 PM	23.19	✓		16.5	0.086	0.086	ng/L	
Hg2600-2	DM2	SAM	1709624-03	100	10/19/2017 12:45:30	87711-1.RAW	12:45:30 PM	2029.22	✓	2	2022.6	10.477	1047.686	ng/L	
Hg2600-2	DM2	SAM	1709624-04	100	10/19/2017 12:49:38	87712-1.RAW	12:49:38 PM	2362.39	✓	2	2355.7	12.206	1220.599	ng/L	
Hg2600-2	DM2	SAM	1709624-05	100	10/19/2017 12:53:47	87713-1.RAW	12:53:47 PM	2104.16	✓	2	2097.5	10.866	1086.578	ng/L	
Hg2600-2	DM2	SAM	1709626-04	100	10/19/2017 12:57:55	87714-1.RAW	12:57:55 PM	1985.84	✓	2	1979.2	10.252	1025.172	ng/L	
Hg2600-2	DM2	SAM	1709626-05	100	10/19/2017 13:02:04	87715-1.RAW	1:02:04 PM	1251.30	✓	2	1244.6	6.439	643.949	ng/L	
Hg2600-2	DM2	SAM	1709626-06	100	10/19/2017 13:06:12	87716-1.RAW	1:06:12 PM	996.66	✓	2	990.0	5.118	511.790	ng/L	
Hg2600-2	DM2	SAM	1709626-07	100	10/19/2017 13:10:20	87717-1.RAW	1:10:20 PM	1421.52	✓	2	1414.9	7.323	732.290	ng/L	
Hg2600-2	DM2	SAM	1709626-08	100	10/19/2017 13:14:29	87718-1.RAW	1:14:29 PM	1105.71	✓	2	1099.1	5.684	568.388	ng/L	
Hg2600-2	DM2	SAM	1709626-09	100	10/19/2017 13:18:38	87719-1.RAW	1:18:38 PM	988.88	✓	2	982.2	5.078	507.754	ng/L	
Hg2600-2	DM2	SAM	1709626-10	100	10/19/2017 13:22:47	87720-1.RAW	1:22:47 PM	1286.70	✓	2	1280.0	6.623	662.318	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	10/19/2017 13:26:55	87721-1.RAW	1:26:55 PM	941.64	✓		935.0	4.853	4.853	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	10/19/2017 13:31:04	87722-1.RAW	1:31:04 PM	26.99	✓		20.3	0.105	0.105	ng/L	
Hg2600-2	DM2	SAM	1709626-18	100	10/19/2017 13:35:12	87723-1.RAW	1:35:12 PM	1239.86	✓	2	1233.2	6.380	638.009	ng/L	
Hg2600-2	DM2	SAM	1709626-11	100	10/19/2017 13:39:21	87724-1.RAW	1:39:21 PM	1644.71	✓	2	1638.0	8.481	848.127	ng/L	
Hg2600-2	DM2	SAM	1709626-12	100	10/19/2017 13:43:29	87725-1.RAW	1:43:29 PM	1117.03	✓	2	1110.4	5.743	574.261	ng/L	
Hg2600-2	DM2	SAM	1709626-13	100	10/19/2017 13:47:38	87726-1.RAW	1:47:38 PM	1319.84	✓	2	1313.2	6.795	679.519	ng/L	
Hg2600-2	DM2	SAM	1709626-14	100	10/19/2017 13:51:46	87727-1.RAW	1:51:46 PM	1310.31	✓	2	1303.6	6.746	674.574	ng/L	
Hg2600-2	DM2	SAM	1709626-15	100	10/19/2017 13:55:54	87728-1.RAW	1:55:54 PM	1152.90	✓	2	1146.2	5.929	592.876	ng/L	
Hg2600-2	DM2	SAM	1709626-16	100	10/19/2017 14:00:03	87729-1.RAW	2:00:03 PM	1341.99	✓	2	1335.3	6.910	691.015	ng/L	
Hg2600-2	DM2	SAM	1709626-17	100	10/19/2017 14:04:11	87730-1.RAW	2:04:11 PM	1231.63	✓	2	1225.0	6.337	633.739	ng/L	
Hg2600-2	DM2	SAM	F710260-MS1	400	10/19/2017 14:08:20	87731-1.RAW	2:08:20 PM	2261.16	✓	2	2254.5	11.696	4678.294	ng/L	
Hg2600-2	DM2	SAM	F710260-MSD1	400	10/19/2017 14:12:28	87732-1.RAW	2:12:28 PM	2401.51	✓	2	2394.8	12.424	4969.648	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	10/19/2017 14:16:37	87733-1.RAW	2:16:37 PM	941.42	✓		934.8	4.851	4.851	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	10/19/2017 14:20:45	87734-1.RAW	2:20:45 PM	26.33	✓		19.7	0.102	0.102	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	DM2	SAM	F710260-DUP1	100	10/19/2017 14:24:54	87735-1.RAW	2:24:54 PM	1344.06	2		1337.4	6.921	692.088	ng/L	
Hg2600-2	DM2	SAM	F710260-MS2	400	10/19/2017 14:29:02	87736-1.RAW	2:29:02 PM	2537.35	2		2530.7	13.129	5251.656	ng/L	
Hg2600-2	DM2	SAM	F710260-MSD2	400	10/19/2017 14:33:10	87737-1.RAW	2:33:10 PM	2586.10	2		2579.4	13.382	5352.865	ng/L	
Hg2600-2	DM2	BLK	F710262-BLK1	20	10/19/2017 14:37:19	87738-1.RAW	2:37:19 PM	45.45	3		38.8	0.201	4.026	ng/L	
Hg2600-2	DM2	BLK	F710262-BLK2	20	10/19/2017 14:41:27	87739-1.RAW	2:41:27 PM	24.51	3		17.8	0.093	1.853	ng/L	
Hg2600-2	DM2	BLK	F710262-BLK3	20	10/19/2017 14:45:36	87740-1.RAW	2:45:36 PM	21.66	3		15.0	0.078	1.557	ng/L	
Hg2600-2	DM2	SAM	F710262-BS1	20	10/19/2017 14:49:44	87741-1.RAW	2:49:44 PM	983.55	3		976.9	4.946	98.922	ng/L	
Hg2600-2	DM2	SAM	F710262-BSD1	20	10/19/2017 14:53:53	87742-1.RAW	2:53:53 PM	957.43	3		950.8	4.811	96.210	ng/L	
Hg2600-2	DM2	SAM	F710262-BS2	400	10/19/2017 14:58:01	87743-1.RAW	2:58:01 PM	978.38	3		971.7	5.037	2014.789	ng/L	
Hg2600-2	DM2	SAM	1709826-19	100	10/19/2017 15:02:10	87744-1.RAW	3:02:10 PM	1304.16	3		1297.5	6.709	670.917	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	10/19/2017 15:06:18	87745-1.RAW	3:06:18 PM	967.105915			960.4	4.985	4.985	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	10/19/2017 15:10:26	87746-1.RAW	3:10:26 PM	25.77			19.1	0.099	0.099	ng/L	
Hg2600-2	DM2	SAM	1709626-20	100	10/19/2017 15:14:35	87747-1.RAW	3:14:35 PM	1259.39	3		1252.7	6.477	647.685	ng/L	
Hg2600-2	DM2	SAM	1709627-01	100	10/19/2017 15:18:43	87748-1.RAW	3:18:43 PM	177.83	3		171.2	0.864	86.354	ng/L	
Hg2600-2	DM2	SAM	1709627-02	100	10/19/2017 15:22:52	87749-1.RAW	3:22:52 PM	187.39	3		180.7	0.913	91.319	ng/L	
Hg2600-2	DM2	SAM	1709627-03	100	10/19/2017 15:27:00	87750-1.RAW	3:27:00 PM	298.80	3		292.1	1.491	149.137	ng/L	
Hg2600-2	DM2	SAM	1709627-04	100	10/19/2017 15:31:09	87751-1.RAW	3:31:09 PM	237.81	3		231.2	1.175	117.488	ng/L	
Hg2600-2	DM2	SAM	1709627-05	100	10/19/2017 15:35:17	87752-1.RAW	3:35:17 PM	198.98	3		192.3	0.973	97.332	ng/L	
Hg2600-2	DM2	SAM	1709627-06	100	10/19/2017 15:39:26	87753-1.RAW	3:39:26 PM	173.58	3		166.9	0.842	84.151	ng/L	
Hg2600-2	DM2	SAM	1709627-07	100	10/19/2017 15:43:34	87754-1.RAW	3:43:34 PM	300.36	3		293.7	1.500	149.950	ng/L	
Hg2600-2	DM2	SAM	1709627-08	100	10/19/2017 15:47:42	87755-1.RAW	3:47:42 PM	351.21	3		344.5	1.763	176.338	ng/L	
Hg2600-2	DM2	SAM	1709627-09	100	10/19/2017 15:51:51	87756-1.RAW	3:51:51 PM	199.90	3		193.2	0.978	97.811	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	10/19/2017 15:55:59	87757-1.RAW	3:55:59 PM	907.23			900.6	4.674	4.674	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	10/19/2017 16:00:08	87758-1.RAW	4:00:08 PM	18.73			12.1	0.063	0.063	ng/L	
Hg2600-2	DM2	SAM	1709627-10	20	10/19/2017 16:04:16	87759-1.RAW	4:04:16 PM	1018.21	3		1011.5	5.126	102.519	ng/L	
Hg2600-2	DM2	SAM	1709627-11	20	10/19/2017 16:08:25	87760-1.RAW	4:08:25 PM	1279.98	3		1273.3	6.485	129.691	ng/L	
Hg2600-2	DM2	SAM	1709627-12	20	10/19/2017 16:12:33	87761-1.RAW	4:12:33 PM	954.63	3		948.0	4.796	95.919	ng/L	
Hg2600-2	DM2	SAM	1709627-13	20	10/19/2017 16:16:41	87762-1.RAW	4:16:41 PM	1344.33	3		1337.7	6.819	136.370	ng/L	
Hg2600-2	DM2	SAM	1709627-14	20	10/19/2017 16:20:50	87763-1.RAW	4:20:50 PM	873.00	3		866.3	4.372	87.446	ng/L	
Hg2600-2	DM2	SAM	1709627-15	20	10/19/2017 16:24:58	87764-1.RAW	4:24:58 PM	1376.63	3		1370.0	6.986	139.723	ng/L	
Hg2600-2	DM2	SAM	1709627-16	20	10/19/2017 16:29:07	87765-1.RAW	4:29:07 PM	1008.07	3		1001.4	5.073	101.467	ng/L	
Hg2600-2	DM2	SAM	1709627-17	20	10/19/2017 16:33:15	87766-1.RAW	4:33:15 PM	1069.75	3		1063.1	5.393	107.869	ng/L	
Hg2600-2	DM2	SAM	1709627-18	20	10/19/2017 16:37:24	87767-1.RAW	4:37:24 PM	885.28	3		878.6	4.436	88.722	ng/L	
Hg2600-2	DM2	SAM	1709627-01RE1	20	10/19/2017 16:41:32	87768-1.RAW	4:41:32 PM	806.96	3		800.3	4.030	80.592	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	10/19/2017 16:45:41	87769-1.RAW	4:45:41 PM	911.28			904.6	4.695	4.695	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	10/19/2017 16:49:49	87770-1.RAW	4:49:49 PM	22.29			15.6	0.081	0.081	ng/L	
Hg2600-2	DM2	SAM	1709627-02RE1	20	10/19/2017 16:53:57	87771-1.RAW	4:53:57 PM	807.52	3		800.9	4.032	80.650	ng/L	
Hg2600-2	DM2	SAM	1709627-05RE1	20	10/19/2017 16:58:06	87772-1.RAW	4:58:06 PM	963.38	3		956.7	4.841	96.829	ng/L	
Hg2600-2	DM2	SAM	1709627-06RE1	20	10/19/2017 17:02:14	87773-1.RAW	5:02:14 PM	782.87	3		776.2	3.905	78.091	ng/L	
Hg2600-2	DM2	SAM	1709627-09RE1	20	10/19/2017 17:06:23	87774-1.RAW	5:06:23 PM	902.83	3		896.2	4.527	90.543	ng/L	
Hg2600-2	DM2	SAM	F710262-DUP1	100	10/19/2017 17:10:31	87775-1.RAW	5:10:31 PM	1361.63	3		1355.0	7.007	700.744	ng/L	
Hg2600-2	DM2	SAM	F710262-MS1	400	10/19/2017 17:14:40	87776-1.RAW	5:14:40 PM	2456.89	3		2450.2	12.710	5084.163	ng/L	
Hg2600-2	DM2	SAM	F710262-MSD1	400	10/19/2017 17:18:48	87777-1.RAW	5:18:48 PM	2322.53	3		2315.9	12.013	4805.224	ng/L	
Hg2600-2	DM2	SAM	F710262-MS2	400	10/19/2017 17:22:57	87778-1.RAW	5:22:57 PM	2181.96	3		2175.3	11.284	4513.421	ng/L	
Hg2600-2	DM2	SAM	F710262-MSD2	400	10/19/2017 17:27:05	87779-1.RAW	5:27:05 PM	2172.67	3		2166.0	11.235	4494.128	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	10/19/2017 17:31:13	87780-1.RAW	5:31:13 PM	930.02			923.4	4.792	4.792	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	10/19/2017 17:35:22	87781-1.RAW	5:35:22 PM	26.20			19.5	0.101	0.101	ng/L	
Hg2600-2	DM2	BLK	F710405-BLK1	50	10/19/2017 17:39:30	87782-1.RAW	5:39:30 PM	23.98	4		17.3	0.090	4.495	ng/L	
Hg2600-2	DM2	BLK	F710405-BLK2	50	10/19/2017 17:43:39	87783-1.RAW	5:43:39 PM	27.04	4		20.4	0.106	5.287	ng/L	
Hg2600-2	DM2	SAM	F710405-BS1	400	10/19/2017 17:47:47	87784-1.RAW	5:47:47 PM	1334.43	4		1327.8	6.879	2751.531	ng/L	
Hg2600-2	DM2	SAM	F710405-BSD1	400	10/19/2017 17:51:56	87785-1.RAW	5:51:56 PM	1337.29	4		1330.6	6.894	2757.464	ng/L	
Hg2600-2	DM2	SAM	1710616-01	50	10/19/2017 17:56:04	87786-1.RAW	5:56:04 PM	28.84	4		22.2	0.017	0.864	ng/L	
Hg2600-2	DM2	SAM	F710405-MS1	400	10/19/2017 18:00:13	87787-1.RAW	6:00:13 PM	1291.87	4		1285.2	6.658	2663.193	ng/L	
Hg2600-2	DM2	SAM	F710405-MSD1	400	10/19/2017 18:04:21	87788-1.RAW	6:04:21 PM	1322.80	4		1316.1	6.818	2727.397	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV9	1	10/19/2017 18:08:29	87789-1.RAW	6:08:29 PM	948.51			941.8	4.888	4.888	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB9	1	10/19/2017 18:12:38	87790-1.RAW	6:12:38 PM	23.43			16.8	0.087	0.087	ng/L	

TotalMercury
 EPA1631
 Operat DM
 Works1 THg2601
 Methoc #### R:
 Descrip THg26002-171019-1

BlankS 6.6633
 CalibFa 192.68
 R: 1

Calib Eqn: Conc = (Area-6.663
 Status: QC Warnings:5/QC I
 R2: 0.9999

Run Date: #####
 Run Time: 10:06:35

Blank SD: 1.688847051
 Blank RSD%: 25.34568574
 CF SD: 7.461022074
 CF RSD%: 3.872247624

SampleID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	5.42					87673-1.RAW	10:09:27	1044.02	Clean	OK	1
Clean				0.00	0.03					87674-1.RAW	10:12:18	5.45	Clean	OK	1
ws				6.66	0.01					87675-1.RAW	10:16:27	8.20	Sample	OK	1
ws				6.66	0.01					87676-1.RAW	10:20:35	7.70	Sample	OK	1
ws				6.66	0.02					87677-1.RAW	10:24:44	10.14	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.03					87678-1.RAW	10:28:52	5.84	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.04					87679-1.RAW	10:33:00	8.61	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.03					87680-1.RAW	10:37:09	5.54	Sample	OK	1
SEQ-CAL1	A4		1	6.66	0.53		105.51			87681-1.RAW	10:41:17	108.32	Sample	OK	1
SEQ-CAL2	A5		1	6.66	1.00		99.84			87682-1.RAW	10:45:26	199.04	Sample	OK	1
SEQ-CAL3	A6		1	6.66	5.09		101.80			87683-1.RAW	10:49:34	987.37	Sample	OK	1
SEQ-CAL4	A7		1	6.66	19.16		95.82			87684-1.RAW	10:53:43	3699.28	Sample	OK	1
SEQ-CAL5	A8		1	6.66	38.81		97.02			87685-1.RAW	10:57:51	7484.41	Sample	OK	1
SEQ-ICV1	A9		1	6.66	5.02		100.42			87686-1.RAW	11:01:59	974.06	Sample	OK	1
F710387-BLK1	A10		20	6.66	3.70					87687-1.RAW	11:06:08	42.35	Sample	OK	1
F710387-BLK2	A11		20	6.66	1.65					87688-1.RAW	11:10:16	22.57	Sample	OK	1
F710387-BLK3	A12		20	6.66	1.96					87689-1.RAW	11:14:25	25.54	Sample	OK	1
F710387-BS1	A13		20	6.66	98.10					87690-1.RAW	11:18:33	951.71	Sample	OK	1
F710387-BSD1	A14		20	6.66	91.67					87691-1.RAW	11:22:42	889.77	Sample	OK	1
F710387-BS2	A15		400	6.66	1928.46					87692-1.RAW	11:26:50	935.60	Sample	OK	1
1709628-15	A16		100	6.66	992.42					87693-1.RAW	11:30:58	1918.86	Sample	OK	1
1709628-16RE1	A17		100	6.66	2516.10					87694-1.RAW	11:35:07	4854.67	Sample	OK	1
1709628-18RE1	A18		100	6.66	1039.74					87695-1.RAW	11:39:15	2010.02	Sample	OK	1
F710387-DUP1	A19		100	6.66	1246.54					87696-1.RAW	11:43:24	2408.48	Sample	OK	1
SEQ-CCV1	A20		1	6.66	4.83		96.53			87697-1.RAW	11:47:32	936.66	Sample	OK	1
SEQ-CCB1	A21		1	6.66	0.10		0.00			87698-1.RAW	11:51:40	25.89	Sample	OK	1
F710387-MS1	B1		400	6.66	5448.34		495401.65			87699-1.RAW	11:55:49	2631.12	Sample	OK	1
F710387-MSD1	B2		400	6.66	5234.62					87700-1.RAW	11:59:57	2528.17	Sample	OK	1
F710260-BLK1	B3		20	6.66	2.84					87701-1.RAW	12:04:06	33.99	Sample	OK	1
F710260-BLK2	B4		20	6.66	1.93					87702-1.RAW	12:08:14	25.22	Sample	OK	1
F710260-BLK3	B5		20	6.66	1.28					87703-1.RAW	12:12:23	19.04	Sample	OK	1
F710260-BS1	B6		20	6.66	101.73					87704-1.RAW	12:16:31	986.77	Sample	OK	1
F710260-BSD1	B7		20	6.66	93.27					87705-1.RAW	12:20:39	905.24	Sample	OK	1
F710260-BS2	B8		400	6.66	1952.87					87706-1.RAW	12:24:48	947.36	Sample	OK	1
1709624-01	B9		100	6.66	907.08					87707-1.RAW	12:28:56	1754.42	Sample	OK	1
1709624-02	B10		100	6.66	813.07					87708-1.RAW	12:33:05	1573.28	Sample	OK	1
SEQ-CCV2	B11		1	6.66	4.64		92.72			87709-1.RAW	12:37:13	899.88	Sample	OK	1
SEQ-CCB2	B12		1	6.66	0.09		0.00			87710-1.RAW	12:41:21	23.19	Sample	OK	1
1709624-03	B13		100	6.66	1049.70					87711-1.RAW	12:45:30	2029.22	Sample	OK	1
1709624-04	B14		100	6.66	1222.62					87712-1.RAW	12:49:38	2362.39	Sample	OK	1
1709624-05	B15		100	6.66	1088.59					87713-1.RAW	12:53:47	2104.16	Sample	OK	1
1709626-04	B16		100	6.66	1027.19					87714-1.RAW	12:57:55	1985.84	Sample	OK	1
1709626-05	B17		100	6.66	645.96					87715-1.RAW	13:02:04	1251.30	Sample	OK	1
1709626-06	B18		100	6.66	513.81					87716-1.RAW	13:06:12	996.66	Sample	OK	1
1709626-07	B19		100	6.66	734.31					87717-1.RAW	13:10:20	1421.52	Sample	OK	1
1709626-08	B20		100	6.66	570.40					87718-1.RAW	13:14:29	1105.71	Sample	OK	1
1709626-09	B21		100	6.66	509.77					87719-1.RAW	13:18:38	988.88	Sample	OK	1
1709626-10	C1		100	6.66	664.33					87720-1.RAW	13:22:47	1286.70	Sample	OK	1
SEQ-CCV3	C2		1	6.66	4.85		97.05			87721-1.RAW	13:26:55	941.64	Sample	OK	1
SEQ-CCB3	C3		1	6.66	0.11		0.00			87722-1.RAW	13:31:04	26.99	Sample	OK	1
1709626-18	C4		100	6.66	640.02					87723-1.RAW	13:35:12	1239.86	Sample	OK	1
1709626-11	C5		100	6.66	850.14					87724-1.RAW	13:39:21	1644.71	Sample	OK	1
1709626-12	C6		100	6.66	576.28					87725-1.RAW	13:43:29	1117.03	Sample	OK	1
1709626-13	C7		100	6.66	681.53					87726-1.RAW	13:47:38	1319.84	Sample	OK	1
1709626-14	C8		100	6.66	676.59					87727-1.RAW	13:51:46	1310.31	Sample	OK	1
1709626-15	C9		100	6.66	594.89					87728-1.RAW	13:55:54	1152.90	Sample	OK	1
1709626-16	C10		100	6.66	693.03					87729-1.RAW	14:00:03	1341.99	Sample	OK	1
1709626-17	C11		100	6.66	635.76					87730-1.RAW	14:04:11	1231.63	Sample	OK	1
F710260-MS1	C12		400	6.66	4680.31		735.03			87731-1.RAW	14:08:20	2261.16	Sample	OK	1

F710260-MSD1	C13	400	6.66	4971.66		87732-1.RAW	14:12:28	2401.51	Sample	OK	1
SEQ-CCV4	C14	1	6.66	4.85	97.03	87733-1.RAW	14:16:37	941.42	Sample	OK	1
SEQ-CCB4	C15	1	6.66	0.10	0.00	87734-1.RAW	14:20:45	26.33	Sample	OK	1
F710260-DUP1	C16	100	6.66	694.10		87735-1.RAW	14:24:54	1344.06	Sample	OK	1
F710260-MS2	C17	400	6.66	5253.67	754.73	87736-1.RAW	14:29:02	2537.35	Sample	OK	1
F710260-MSD2	C18	400	6.66	5354.88		87737-1.RAW	14:33:10	2586.10	Sample	OK	1
F710262-BLK1	C19	20	6.66	4.03		87738-1.RAW	14:37:19	45.45	Sample	OK	1
F710262-BLK2	C20	20	6.66	1.85		87739-1.RAW	14:41:27	24.51	Sample	OK	1
F710262-BLK3	C21	20	6.66	1.56		87740-1.RAW	14:45:36	21.66	Sample	OK	1
F710262-BS1	A1	20	6.66	101.40		87741-1.RAW	14:49:44	983.55	Sample	OK	1
F710262-BSD1	A2	20	6.66	98.69		87742-1.RAW	14:53:53	957.43	Sample	OK	1
F710262-BS2	A3	400	6.66	2017.27		87743-1.RAW	14:58:01	978.38	Sample	OK	1
1709626-19	A4	100	6.66	673.40		87744-1.RAW	15:02:10	1304.16	Sample	OK	1
SEQ-CCV5	A5	1	6.66	4.98	99.69	87745-1.RAW	15:06:18	967.11	Sample	OK	1
SEQ-CCB5	A6	1	6.66	0.10	0.00	87746-1.RAW	15:10:26	25.77	Sample	OK	1
1709626-20	A7	100	6.66	650.16		87747-1.RAW	15:14:35	1259.39	Sample	OK	1
1709627-01	A8	100	6.66	88.83		87748-1.RAW	15:18:43	177.83	Sample	OK	1
1709627-02	A9	100	6.66	93.80		87749-1.RAW	15:22:52	187.39	Sample	OK	1
1709627-03	A10	100	6.66	151.62		87750-1.RAW	15:27:00	298.80	Sample	OK	1
1709627-04	A11	100	6.66	119.97		87751-1.RAW	15:31:09	237.81	Sample	OK	1
1709627-05	A12	100	6.66	99.81		87752-1.RAW	15:35:17	198.98	Sample	OK	1
1709627-06	A13	100	6.66	86.63		87753-1.RAW	15:39:26	173.58	Sample	OK	1
1709627-07	A14	100	6.66	152.43		87754-1.RAW	15:43:34	300.36	Sample	OK	1
1709627-08	A15	100	6.66	178.82		87755-1.RAW	15:47:42	351.21	Sample	OK	1
1709627-09	A16	100	6.66	100.29		87756-1.RAW	15:51:51	199.90	Sample	OK	1
SEQ-CCV6	A17	1	6.66	4.67	93.48	87757-1.RAW	15:55:59	907.23	Sample	OK	1
SEQ-CCB6	A18	1	6.66	0.06	0.00	87758-1.RAW	16:00:08	18.73	Sample	OK	1
1709627-10	A19	20	6.66	105.00		87759-1.RAW	16:04:16	1018.21	Sample	OK	1
1709627-11	A20	20	6.66	132.17		87760-1.RAW	16:08:25	1279.98	Sample	OK	1
1709627-12	A21	20	6.66	98.40		87761-1.RAW	16:12:33	954.63	Sample	OK	1
1709627-13	B1	20	6.66	138.85		87762-1.RAW	16:16:41	1344.33	Sample	OK	1
1709627-14	B2	20	6.66	89.92		87763-1.RAW	16:20:50	873.00	Sample	OK	1
1709627-15	B3	20	6.66	142.20		87764-1.RAW	16:24:58	1376.63	Sample	OK	1
1709627-16	B4	20	6.66	103.95		87765-1.RAW	16:29:07	1008.07	Sample	OK	1
1709627-17	B5	20	6.66	110.35		87766-1.RAW	16:33:15	1069.75	Sample	OK	1
1709627-18	B6	20	6.66	91.20		87767-1.RAW	16:37:24	885.28	Sample	OK	1
1709627-01RE1	B7	20	6.66	83.07		87768-1.RAW	16:41:32	806.96	Sample	OK	1
SEQ-CCV7	B8	1	6.66	4.69	93.90	87769-1.RAW	16:45:41	911.28	Sample	OK	1
SEQ-CCB7	B9	1	6.66	0.08	0.00	87770-1.RAW	16:49:49	22.29	Sample	OK	1
1709627-02RE1	B10	20	6.66	83.13		87771-1.RAW	16:53:57	807.52	Sample	OK	1
1709627-05RE1	B11	20	6.66	99.31		87772-1.RAW	16:58:06	963.38	Sample	OK	1
1709627-06RE1	B12	20	6.66	80.57		87773-1.RAW	17:02:14	782.87	Sample	OK	1
1709627-09RE1	B13	20	6.66	93.02		87774-1.RAW	17:06:23	902.83	Sample	OK	1
F710262-DUP1	B14	100	6.66	703.22		87775-1.RAW	17:10:31	1361.63	Sample	OK	1
F710262-MS1	B15	400	6.66	5086.64	722.31	87776-1.RAW	17:14:40	2456.89	Sample	OK	1
F710262-MSD1	B16	400	6.66	4807.70		87777-1.RAW	17:18:48	2322.53	Sample	OK	1
F710262-MS2	B17	400	6.66	4515.90	93.89	87778-1.RAW	17:22:57	2181.96	Sample	OK	1
F710262-MSD2	B18	400	6.66	4496.61		87779-1.RAW	17:27:05	2172.67	Sample	OK	1
SEQ-CCV8	B19	1	6.66	4.79	95.84	87780-1.RAW	17:31:13	930.02	Sample	OK	1
SEQ-CCB8	B20	1	6.66	0.10	0.00	87781-1.RAW	17:35:22	26.20	Sample	OK	1
F710405-BLK1	B21	50	6.66	4.49		87782-1.RAW	17:39:30	23.98	Sample	OK	1
F710405-BLK2	C1	50	6.66	5.29		87783-1.RAW	17:43:39	27.04	Sample	OK	1
F710405-BS1	C2	400	6.66	2756.42		87784-1.RAW	17:47:47	1334.43	Sample	OK	1
F710405-BSD1	C3	400	6.66	2762.36		87785-1.RAW	17:51:56	1337.29	Sample	OK	1
1710616-01	C4	50	6.66	5.75		87786-1.RAW	17:56:04	28.84	Sample	OK	1
F710405-MS1	C5	400	6.66	2668.08	39498.37	87787-1.RAW	18:00:13	1291.87	Sample	OK	1
F710405-MSD1	C6	400	6.66	2732.29		87788-1.RAW	18:04:21	1322.80	Sample	OK	1
SEQ-CCV9	C7	1	6.66	4.89	97.76	87789-1.RAW	18:08:29	948.51	Sample	OK	1
SEQ-CCB9	C8	1	6.66	0.09	0.00	87790-1.RAW	18:12:38	23.43	Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7J20015

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS:

R 10/20/17

Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J20015-IBL1 ✓	QC	1			
7J20015-IBL2 ✓	QC	2			
7J20015-IBL3 ✓	QC	3			
7J20015-CAL1 ✓	QC	4	1704505	✓	
7J20015-CAL2 ✓	QC	5	1704506	✓	
7J20015-CAL3 ✓	QC	6	1704507	✓	
7J20015-CAL4 ✓	QC	7	1704508	✓	
7J20015-CAL5 ✓	QC	8	1704509	✓	
7J20015-ICV1 ✓	QC	9	1705628	✓	
7J20015-CCV1 ✓	QC	10	1705628	✓	
7J20015-CCB1 ✓	QC	11			
7J20015-CCV2 ✓	QC	12	1705628	✓	
7J20015-CCB2 ✓	QC	13			
7J20015-CCV3 ✓	QC	14	1705628	✓	
7J20015-CCB3 ✓	QC	15			
7J20015-CCV4 ✓	QC	16	1705628	✓	
7J20015-CCB4 ✓	QC	17			
7J20015-CCV5 ✓	QC	18	1705628	✓	
7J20015-CCB5 ✓	QC	19			
7J20015-CCV6 ✓	QC	20	1705628	✓	
7J20015-CCB6 ✓	QC	21			
7J20015-CCV7 ✓	QC	22	1705628	✓	
7J20015-CCB7 ✓	QC	23			
7J20015-CCV8 ✓	QC	24	1705628	✓	
7J20015-CCB8 ✓	QC	25			
F710405-BLK1 ✓	QC	26			
F710405-BLK2 ✓	QC	27			
F710405-BS1 ✓	QC	28			
F710405-BSD1 ✓	QC	29			
1710616-01 ✓	Hg-CVAFS-S-Bomb	30			QG00L-1 - Prep 2.0-2.15 grams
F710405-MS1 ✓	QC	31			
F710405-MSD1 ✓	QC	32		✓	
7J20015-CCV9 ✓	QC	33	1705628		
7J20015-CCB9 ✓	QC	34			

ANALYSIS SEQUENCE

7J20015

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Dan Mason 10/19/17
Samples Loaded By Date

Dan Mason 10/20/17
Data Processed By Date

PREPARATION BENCH SHEET

F710405

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/18/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710405-BLK1	Blank	0.5	50					
F710405-BLK2	Blank	0.5	50					
F710405-BS1	LCS	0.5	50	1705879	50			
F710405-BSD1	LCS Dup	0.5	50	1705879	50			
F710405-MS1	Matrix Spike [1710616-01]	2.0109	50	1705879	50			
F710405-MSD1	Matrix Spike Dup [1710616-01]	2.0225	50	1705879	50			

Standard ID(s): 1705879
Description: EFGS-PREPSPIKE1/2, plus Hg

Expiration: 02-Jan-18 00:00

<u>Reagent ID(s):</u> 1703182	<u>Description:</u> 25% Hydroxylamine-HCl working solution	<u>Expiration:</u> 24-Nov-17 00:00
1705610	THg Washstation (0.5% BrCl)	
1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
1705679	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

PREPARATION BENCH SHEET

F710405

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/18/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710616-01	740-2017-10160089 EUUSBO2-00095035	2.0365	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	



Sample Preparation Review Checklist

Revision: 3
Effective: Dec. 5, 2013

Technician/Date: MMP 10/19/2017
Upload/Date: MMP 10/19/2017

Samples to lab: 1500
Reviewer/Date: _____

Batch #: F710405

EFGS Preparation Method

FGS-032 Co-APDC

FGS-052 Oven Digestion (Total Recoverable Metals) ICPMS AFS

FGS-058 Nitric Digestion ICPMS CVAFS

FGS-084 Modified Aqua Regia (Ag, Sb only)

FGS-108 Cr+6 Sediments/Tissues

FGS-109 RP

FGS-111 HF Bomb Digestion ICPMS CVAFS

FGS-141 Nitric Bomb Digestion ICPMS CVAFS

FGS-145 Oven Digestion (As, Se Speciation) As Se

FGS-146 Microwave Digestion (Nutraceuticals)

FGS-146 Microwave Digestion (CPSC-Metal)

FGS-146 Microwave Digestion (CPSC-Non-Metal/Paint)

FGS-149 Oven Digestion (Aqueous Nutraceuticals)

NA Other:

Initials	SOP Date	DOC Date
<u>MMP</u>	<u>2/14/2017</u>	<u>12/28/2016</u>
_____	_____	_____
_____	_____	_____

Comments: _____

Conditionally formatted training files located at:
\\us34file\General and Admin\Quality Assurance\Training\Training Master
(Contact QA for any problems regarding these training files.)

Analytes: Hg

		Reviewer Initials	Tertiary Review
1. Is any SOP/DOC expiring within one week of Submission Date?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<u>DM</u>	<u>PZ</u>
Data cannot be reported without a current IDOC/CDOC. If YES, notify supervisor and technician immediately.			
2. Check prep method	<input checked="" type="checkbox"/> YES	<u>✓</u>	<u>✓</u>
(a) For Ceuticals: Is correct Hg code being used in LIMS? <input type="checkbox"/> ICPMS <input checked="" type="checkbox"/> CV-AFS <input type="checkbox"/> 70:30 <input type="checkbox"/> N/A		<u>✓</u>	<u>✓</u>
3. Compare sample ID with benchsheet	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
4. Verify time of submission? (if not met please explain in the comments)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
(a) Oven bomb - digestion start time before 14:00?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
(b) Microwave - submitted to the lab before 16:00?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
5. Check for transcription errors from benchsheet	<input checked="" type="checkbox"/> YES	<u>✓</u>	<u>✓</u>
(a) Check and compare initial and final volumes	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
(b) Check and compare mass	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
(c) Has the number of pills been documented (benchsheet and LIMS)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
(d) Benchsheet prep date MUST match actual prep date	<input checked="" type="checkbox"/> YES	<u>✓</u>	<u>✓</u>
6. Samples per Batch? Check QC Requirements	<input type="checkbox"/> ≤ 20 <input checked="" type="checkbox"/> ≤ 10	<u>✓</u>	<u>✓</u>
(a) PBs per batch? <input type="checkbox"/> 3 PBs <input checked="" type="checkbox"/> 2 PB <input type="checkbox"/> 1 PB		<u>✓</u>	<u>✓</u>
(b) BS, BS/BSD or CRM in batch? <input type="checkbox"/> BS <input checked="" type="checkbox"/> BS/BSD <input type="checkbox"/> CRM		<u>✓</u>	<u>✓</u>
(c) MS/MSD in batch?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
(d) MD in batch?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
(e) Client specific WO #'s: _____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
(f) Are there any client specific requests and/or alterations?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
Document: _____			
(g) Correct LIMS spike ID included for BS, BS/BSD and/or MS/MSD?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
(h) Correct 'source' designated for MD/MS/MSD?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
(i) For EFGS-filtered samples, was a filtration blank included?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
7. Are the samples appropriately spiked?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
(a) Is the spike and amount used appropriate and entered into LIMS?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
(b) For IDOCs, was there a spike witness? (initials <u>must</u> be in logbook)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
(c) Spikes added:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>

NOTE: Due to LIMS software constraints, new LIMS IDs need to be created when multiple/ supplemental spikes are used. Enter new LIMS ID below and use table to list all spikes included in it.

Spike LIMS ID: 1705879 1705879

Spike Name	LIMS ID	μL	Spike Name	LIMS ID	μL
<u>Propylmer</u>	<u>1703595</u>	<u>50</u>			
<u>Propylmer 2</u>	<u>1703596</u>	<u>50</u>			
<u>T Hg</u>	<u>1705879</u>	<u>50</u>			

PREPARATION BENCH SHEET

2000-2
10/19/17 DM

F710405

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/18/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710405-BLK1	Blank	0.5	50					50X /
F710405-BLK2	Blank	0.5	50					50X /
F710405-BS1	LCS	0.5	50	1705879	50			400X /
F710405-BSD1	LCS Dup	0.5	50	1705879	50			400X /
F710405-MS1	Matrix Spike [1710616-01]	2.0109	50	1705879	50			400X /
F710405-MSD1	Matrix Spike Dup [1710616-01]	2.0225	50	1705879	50			400X /

Standard ID(s): 1705879
Description: EFGS-PREPSPIKE1/2, plus Hg

Expiration: 02-Jan-18 00:00

Reagent ID(s): 1705679
Description: Fisher Nitric Acid, Tracemetal Grade

Expiration: 15-Mar-19 00:00

1703182
1705610
1705611
1706142

PREPARATION BENCH SHEET

2600-2
10/19/17 DM

F710405

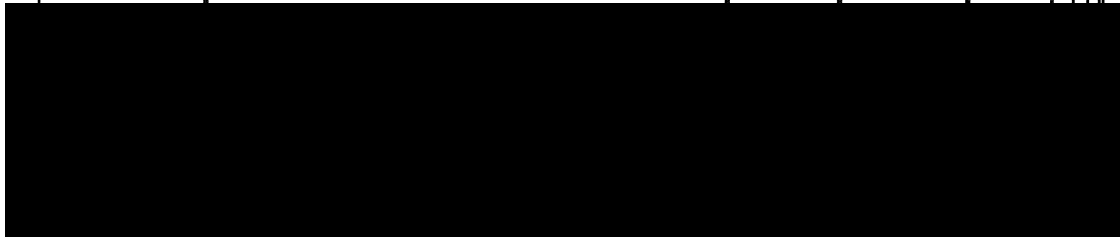
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/18/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710616-01	740-2017-10160089 EUUSBO2-00095035	2.0365	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	SOX ✓



Ceutical Digestions

Batch TM / Hg (circle one) : F710400/401/405 Boiling Chips ^{imp 10/18/2017} ~~LIMS ID~~ 2256094
 Lot No. 2256094

Batch continued on next page? Yes No

1° Tech.: WMP 2° Tech.: VCL Date/Time In: 10/18/2017 1500

Date/Time Out: 10/18/2017 0900 by Timer

Spiked By: WMP Spike Witness (SW): BB

Final Vol. (mL)/Initials/Date:

Balance ID/Cal.? (N): 20 / 10/18/2017

50 WMP 10/18/2017

Digestion: Oven ID: OVN-02 Other ID: _____

Vial Type: 50 mL Centrifuge Tube Teflon

Analysis: ICP-MS CV-AFS

LC-ICP-MS Other: _____

Thermometer ID: 1312060130 Initial: Temp. (°C): 160 / 158.6 / 158.9
 target raw corrected

Final: Temp. (°C): 160 / TIMER
 target raw corrected

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (<input type="checkbox"/> g <input type="checkbox"/> mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
1	NA	X184	F710400-BLK1	D	0.7355	Boil Chips (BL)	✓	
2	NA	X176	F710400-BLK2	D	0.6595	BC	✓	Shared with F710405
3	NA	TH036	F710400-BS1	BD	0.7416	BC	✓	Dry WMP 10/18/2017
4	TH014	TH017	F710400-BS1	D	0.5665	BC	✓	Shared with F710405 BSI
5	NA	X079	1710556-01	E	1.2980	Food (F)	✓	
6	NA	N371	1710556-01 DUPI	E	1.0977	F	✓	
7	NA	N476	1710556-01 MS1	E	1.2078	F	✓	
8	NA	X015	1710556-01 MS1	E	1.8343	F	✓	
9	NA	X024	1710589-01	B	1.0594	F	✓	

Initials: W

	Spike Name	SW	Volume (µL)	LIMS ID	Pipette ID	Cal. Date
A	Pump Spike 1	<input type="checkbox"/>	50	1703595	312664	10/18/2017
B	Pump Spike 2	<input type="checkbox"/>	50	1703596		
C	TH	<input type="checkbox"/>	50	1705878		WMP 10/18/2017
D		<input type="checkbox"/>				
E		<input type="checkbox"/>				

Preparation Method SOP: EFGS-141		
Reagent	Volume (mL)	LIMS ID
HNO ₃	7.5	WMP 10/18/2017 1705879

1	Combined Spike ID: <u>AL = 1705879</u> ; Batches: <u>F710400/401/405</u>
2	Combined Spike ID: _____ ; Batches: <u>WMP 10/18/2017</u>

Batch continued on next page? Yes No

Ceutical Digestions

Batch/TM/Hg (circle one): F710401/405

Boiling Chips ^{MMP10/15/2017} LIMS ID 23569044
Lot No.

Batch continued on next page? Yes No

1° Tech.: _____ 2° Tech.: _____ Date/Time In: _____

Date/Time Out: _____

Spiked By: _____ Spike Witness (SW): _____

See Pg 6

Final Vol. (mL)/Initials/Date: _____

Balance ID/Cal.? (Y/N): _____

Digestion: Oven ID: _____ Other ID: MMP10/15/2017

Vial Type: 50 mL Centrifuge Tube Teflon

Analysis: ICP-MS CV-AFS
 LC-ICP-MS Other: _____

Thermometer ID: _____ Initial: Temp. (°C): _____ / _____ / _____
target raw corrected

Final: Temp. (°C): _____ / _____ / _____
target raw corrected

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (g mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
1	N/A	X095	F710401-BLK	N/A	0.5347	Boiling Chips (BC)	-	} Dry MMP10/15/2017 BLK
2	N/A	N399	F710401-BLK 2	N/A	0.9051	BC	-	
3	X119	N396	F710401-B31	N/A	0.5380	BC	-	
4	TH041	X070	F710401-BSDI	N/A	0.7508	BC	-	} Dry MMP10/15/2017
5	N/A	N451	1710574-05	A	0.8152	Liquid (L)	-	
6	N/A	X001	1710574-05 Dupl	A	0.9815	L	-	
7	TH046	TH039	1710574-05MSL	A	0.9468	L	-	MSL
8	TH035	X197	1710574-05MSL	A	1.0877	L	-	MSL 10-10-17 MSDI Dry MMP10/15/2017
9	NA	V412	1710016-01	A	2.0365	Powder (P)	-	Shared with F710405

Initials: W

See Pg 6

	Spike Name	SW	Volume (µL)	LIMS ID	Pipette ID	Cal. Date
A		<input type="checkbox"/>				
B		<input type="checkbox"/>				
C		<input type="checkbox"/>				
D		<input type="checkbox"/>				
E		<input type="checkbox"/>				

Preparation Method SOP: EFGS		
Reagent	Volume (mL)	LIMS ID

1 Combined Spike ID: _____ = _____ ; Batches: _____
2 Combined Spike ID: _____ = _____ ; Batches: _____

Batch continued on next page? Yes No

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7J20014

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R* 10/20/17 Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J20014-IBL1 ✓	QC	1			
7J20014-IBL2 ✓	QC	2			
7J20014-IBL3 ✓	QC	3			
7J20014-CAL1 ✓	QC	4	1704505		
7J20014-CAL2 ✓	QC	5	1704506		
7J20014-CAL3 ✓	QC	6	1704507		
7J20014-CAL4 ✓	QC	7	1704508		
7J20014-CAL5 ✓	QC	8	1704509		
7J20014-ICV1 ✓	QC	9	1705628		
F710387-BLK1 ✓	QC	10			
F710387-BLK2 ✓	QC	11			
F710387-BLK3 ✓	QC	12			
F710387-BS1 ✓	QC	13			
F710387-BSD1 ✓	QC	14			
F710387-BS2 ✓	QC	15			
1709628-15 ✓	Hg-CVAFS-T-7030	16			
1709628-16RE1 ✓	Hg-CVAFS-T-7030	17			Redigest for confirmation. PL 10/16/17
1709628-18RE1 ✓	Hg-CVAFS-T-7030	18			Redigest for confirmation. PL 10/16/17
F710387-DUP1 ✓	QC	19			
7J20014-CCV1 ✓	QC	20	1705628		
7J20014-CCB1 ✓	QC	21			
F710387-MS1 ✓	QC	22			
F710387-MSD1 ✓	QC	23			
F710260-BLK1 ✓	QC	24			
F710260-BLK2 ✓	QC	25			
F710260-BLK3 ✓	QC	26			
F710260-BS1 ✓	QC	27			
F710260-BSD1 ✓	QC	28			
F710260-BS2 ✓	QC	29			
1709624-01 ✓	Hg-CVAFS-T-7030	30			
1709624-02 ✓	Hg-CVAFS-T-7030	31			
7J20014-CCV2 ✓	QC	32	1705628		
7J20014-CCB2 ✓	QC	33			
1709624-03 ✓	Hg-CVAFS-T-7030	34			
1709624-04 ✓	Hg-CVAFS-T-7030	35			

Due Date: 10/20/2017

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ANALYSIS SEQUENCE

7J20014

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709624-05 ✓	Hg-CVAFS-T-7030	36			
1709626-04 ✓	Hg-CVAFS-T-7030	37			
1709626-05 ✓	Hg-CVAFS-T-7030	38			
1709626-06 ✓	Hg-CVAFS-T-7030	39			
1709626-07 ✓	Hg-CVAFS-T-7030	40			
1709626-08 ✓	Hg-CVAFS-T-7030	41			
1709626-09 ✓	Hg-CVAFS-T-7030	42			
1709626-10 ✓	Hg-CVAFS-T-7030	43			
7J20014-CCV3 ✓	QC	44	1705628	✓	
7J20014-CCB3 ✓	QC	45			
1709626-18 ✓	Hg-CVAFS-T-7030	46			
1709626-11 ✓	Hg-CVAFS-T-7030	47			
1709626-12 ✓	Hg-CVAFS-T-7030	48			
1709626-13 ✓	Hg-CVAFS-T-7030	49			
1709626-14 ✓	Hg-CVAFS-T-7030	50			
1709626-15 ✓	Hg-CVAFS-T-7030	51			
1709626-16 ✓	Hg-CVAFS-T-7030	52			
1709626-17 ✓	Hg-CVAFS-T-7030	53			
F710260-MS1 ✓	QC	54			
F710260-MSD1 ✓	QC	55			
7J20014-CCV4 ✓	QC	56	1705628	✓	
7J20014-CCB4 ✓	QC	57			
F710260-DUP1 ✓	QC	58			
F710260-MS2 ✓	QC	59			
F710260-MSD2 ✓	QC	60			
F710262-BLK1 ✓	QC	61			
F710262-BLK2 ✓	QC	62			
F710262-BLK3 ✓	QC	63			
F710262-BS1 ✓	QC	64			
F710262-BSD1 ✓	QC	65			
F710262-BS2 ✓	QC	66			
1709626-19 ✓	Hg-CVAFS-T-7030	67			
7J20014-CCV5 ✓	QC	68	1705628	✓	
7J20014-CCB5 ✓	QC	69			
1709626-20 ✓	Hg-CVAFS-T-7030	70			

Due Date: 10/20/2017

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Page 2 of 4

ANALYSIS SEQUENCE

7J20014

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709627-01 ✓	Hg-CVAFS-T-7030	71			
1709627-02 ✓	Hg-CVAFS-T-7030	72			
1709627-03 ✓	Hg-CVAFS-T-7030	73			
1709627-04 ✓	Hg-CVAFS-T-7030	74			
1709627-05 ✓	Hg-CVAFS-T-7030	75			
1709627-06 ✓	Hg-CVAFS-T-7030	76			
1709627-07 ✓	Hg-CVAFS-T-7030	77			
1709627-08 ✓	Hg-CVAFS-T-7030	78			
1709627-09 ✓	Hg-CVAFS-T-7030	79			
7J20014-CCV6 ✓	QC	80	1705628	✓	
7J20014-CCB6 ✓	QC	81			
1709627-10 ✓	Hg-CVAFS-T-7030	82			
1709627-11 ✓	Hg-CVAFS-T-7030	83			
1709627-12 ✓	Hg-CVAFS-T-7030	84			
1709627-13 ✓	Hg-CVAFS-T-7030	85			
1709627-14 ✓	Hg-CVAFS-T-7030	86			
1709627-15 ✓	Hg-CVAFS-T-7030	87			
1709627-16 ✓	Hg-CVAFS-T-7030	88			
1709627-17 ✓	Hg-CVAFS-T-7030	89			
1709627-18 ✓	Hg-CVAFS-T-7030	90			
1709627-01RE1 ✓	Hg-CVAFS-T-7030	91			Added 10/20/2017 by DM2
7J20014-CCV7 ✓	QC	92	1705628	✓	
7J20014-CCB7 ✓	QC	93			
1709627-02RE1 ✓	Hg-CVAFS-T-7030	94			Added 10/20/2017 by DM2
1709627-05RE1 ✓	Hg-CVAFS-T-7030	95			Added 10/20/2017 by DM2
1709627-06RE1 ✓	Hg-CVAFS-T-7030	96			Added 10/20/2017 by DM2
1709627-09RE1 ✓	Hg-CVAFS-T-7030	97			Added 10/20/2017 by DM2
F710262-DUP1 ✓	QC	98			
F710262-MS1 ✓	QC	99			
F710262-MSD1 ✓	QC	100			
F710262-MS2 ✓	QC	101			
F710262-MSD2 ✓	QC	102			
7J20014-CCV8 ✓	QC	103	1705628	✓	
7J20014-CCB8 ✓	QC	104			

ANALYSIS SEQUENCE

7J20014

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Dan Mattem 10/19/17
Samples Loaded By Date

Dan Mattem 10/20/17
Data Processed By Date

PREPARATION BENCH SHEET

F710387

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/17/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710387-BLK1	Blank	0.25	20					
F710387-BLK2	Blank	0.25	20					
F710387-BLK3	Blank	0.25	20					
F710387-BS1	LCS	0.25	20	1704421	20			
F710387-BS2	DORM4	0.1253	20	1705412	125.3			
F710387-BSD1	LCS Dup	0.25	20	1704421	20			
F710387-DUP1	Duplicate [1709628-15]	0.2815	20					
F710387-MS1	Matrix Spike [1709628-15]	0.2626	20	1705554	100			
F710387-MSD1	Matrix Spike Dup [1709628-15]	0.2604	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1706064	70/30 Digestion Acid	09-Apr-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00
			1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

PREPARATION BENCH SHEET

F710387

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/17/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709628-15	ES-03_17HC001_091917_BLM_15_WB	0.2873	20	-	-	-		
1709628-16RE1	ES-03_17HC001_091917_BLM_16_WB	0.2734	20	-	-	-	Redigest for confirmation. PL 10/16/17	
1709628-18RE1	ES-03_17HC001_091917_BLM_18_WB	0.2815	20	-	-	-	Redigest for confirmation. PL 10/16/17	



PREPARATION BENCH SHEET

2000-2
10/19/17 DM

F710387

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/17/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710387-BLK1	Blank	0.25	20					20X
F710387-BLK2	Blank	0.25	20					20X
F710387-BLK3	Blank	0.25	20					20X
F710387-BS1	LCS	0.25	20	1704421	20			20X
F710387-BS2	DORM4	0.1253	20	1705412	125.3			400X
F710387-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710387-DUP1	Duplicate [1709628-15]	0.2815	20					100X
F710387-MS1	Matrix Spike [1709628-15]	0.2626	20	1705554	100			400X
F710387-MSD1	Matrix Spike Dup [1709628-15]	0.2604	20	1705554	100			400X

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1705412	DORM-4	06-Jan-20 00:00	1706064	70/30 Digestion Acid	09-Apr-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706079	5% BrCl	14-Mar-18 00:00

1703152
1705610
1705611
1706142

PREPARATION BENCH SHEET

200-2
10/19/17 DM

F710387

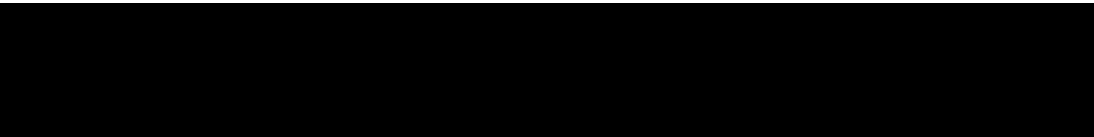
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/17/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709628-15	ES-03_17HC001_091917_BLM_15_WB	0.2873	20	-	-	-		100X -
1709628-16RE1	ES-03_17HC001_091917_BLM_16_WB	0.2734	20	-	-	-	Redigest for confirmation. PL 10/16/17	100X -
1709628-18RE1	ES-03_17HC001_091917_BLM_18_WB	0.2815	20	-	-	-	Redigest for confirmation. PL 10/16/17	100X -



Technician: CWF Batch#: F710387 Date: 10/17/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: 14545 Calibrated? Yes No

*Time in: 12:50 Actual Temp. (raw): 77.0 °C w/ CF: 77.1 °C
 Time out: 14:50 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1706079) Spike vol.: 100 ^{ms/msd} µL (LIMS ID: 1705554)
 Spike Witness: DM 10/17/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: mm619 Calibration Date: 10/17/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1706064 Dispenser #: 1913117 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406603 IF Yes
 Glass Vial # 00068124 Boiling Chip lot # 1704424 *Hotblock Position: A5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710387 - BLK1	0.2748	23			BS2 = 800µL LIMS: 1705412
2	F710387 - BLK2	0.2687	24			
3	F710387 - BLK3	0.2707	25			
4	F710387 - BS1	0.2681	26			Comments
5	F710387 - BS01	0.2577	27			BS/BS1 spiked with 20µL of 1704421
6	F710387 - BS2	0.1253	28			
7	1709628 - 15	0.2873	29			
8	F710387 - DUP1	0.2815	30			DUP1 MS1 /MSB1
9	F710387 - MS1	0.2626	31			same: 1709628-15
10	F710387 - MS01	0.2604	32			
11	1709628 - 16 RE1	0.2734	33			Are/Post blanks for 1709628 are in batch F710289
12	1709628 - 17 RE1	0.2815	34			
13	1709628 - 18 RE1	0.2734	35			
14			36			
15			37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

PREPARATION BENCH SHEET

F710260

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710260-BLK1	Blank	0.25	20					
F710260-BLK2	Blank	0.25	20					
F710260-BLK3	Blank	0.25	20					
F710260-BS1	LCS	0.25	20	1704421	20			
F710260-BS2	DORM4	0.1277	20	1705412	127.7			
F710260-BSD1	LCS Dup	0.25	20	1704421	20			
F710260-DUP1	Duplicate [1709626-18]	0.288	20					
F710260-MS1	Matrix Spike [1709626-18]	0.26	20	1705554	100			
F710260-MS2	Matrix Spike [1709626-04]	0.267	20	1705554	100			
F710260-MSD1	Matrix Spike Dup [1709626-18]	0.277	20	1705554	100			
F710260-MSD2	Matrix Spike Dup [1709626-04]	0.267	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705927	70/30 Digestion Acid	02-Apr-18 00:00
			1705959	5% BrCl	22-Jan-18 00:00
			1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

PREPARATION BENCH SHEET

F710260

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709624-01	OB-05_17SN001_091517_RAS_01_WB	0.251	20	-	-	-		
1709624-02	OB-05_17SN001_091517_RAS_02_WB	0.252	20	QC	-	-	MS/MSD	
1709624-03	OB-05_17SN001_091517_RAS_03_WB	0.251	20	-	-	-	2nd fish from 1709624-01	
1709624-04	OB-05_17SN001_091517_RAS_04_WB	0.253	20	-	-	-	2nd fish from 1709624-02	
1709624-05	OB-05_17SN001_091517_RAS_05_WB	0.259	20	-	-	-	3rd fish from 1709624-02	
1709626-04	OB-01_17SN001_091617_RAS_04_WB	0.265	20	-	-	-		
1709626-05	OB-01_17SN001_091617_RAS_05_WB	0.277	20	-	-	-		
1709626-06	OB-01_17SN001_091617_RAS_06_WB	0.258	20	-	-	-		
1709626-07	OB-01_17SN001_091617_RAS_07_WB	0.281	20	-	-	-		
1709626-08	OB-01_17SN001_091617_RAS_08_WB	0.266	20	-	-	-		
1709626-09	OB-01_17SN001_091617_RAS_09_WB	0.266	20	-	-	-		
1709626-10	OB-01_17SN001_091617_RAS_10_WB	0.279	20	-	-	-		
1709626-11	OB-01_17SN001_091617_RAS_11_WB	0.275	20	-	-	-		
1709626-12	OB-01_17SN001_091617_RAS_12_WB	0.27	20	-	-	-		
1709626-13	OB-01_17SN001_091617_RAS_13_WB	0.273	20	-	-	-		
1709626-14	OB-01_17SN001_091617_RAS_14_WB	0.272	20	-	-	-		
1709626-15	OB-01_17SN001_091617_RAS_15_WB	0.262	20	-	-	-		
1709626-16	OB-01_17SN001_091617_RAS_16_WB	0.281	20	-	-	-		
1709626-17	OB-01_17SN001_091617_RAS_17_WB	0.27	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710260

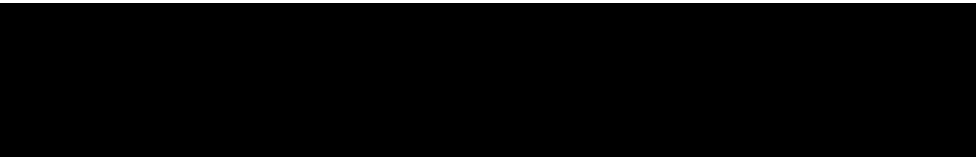
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

1709626-18	OB-01_17SN001_091617_RAS_18_WB	0.285	20	-	-	-		
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PREPARATION BENCH SHEET

2600-2
10/19/17 DM

F710260

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710260-BLK1	Blank	0.25	20					20X -
F710260-BLK2	Blank	0.25	20					20X -
F710260-BLK3	Blank	0.25	20					20X -
F710260-BS1	LCS	0.25	20	1704421	20			20X -
F710260-BS2	DORM4	0.1277	20	1705412	127.7			400X -
F710260-BSD1	LCS Dup	0.25	20	1704421	20			20X -
F710260-DUP1	Duplicate [1709626-18]	0.288	20					100X -
F710260-MS1	Matrix Spike [1709626-18]	0.26	20	1705554	100			400X -
F710260-MS2	Matrix Spike [1709626-04]	0.267	20	1705554	100			400X -
F710260-MSD1	Matrix Spike Dup [1709626-18]	0.277	20	1705554	100			400X -
F710260-MSD2	Matrix Spike Dup [1709626-04]	0.267	20	1705554	100			400X -

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705927	70/30 Digestion Acid	02-Apr-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705959	5% BrCl	22-Jan-18 00:00

1703182
1705610
1705611
1706142

PREPARATION BENCH SHEET

200-2
10/19/17 DM

F710260

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709624-01	OB-05_17SN001_091517_RAS_01_WB	0.251	20	-	-	-		100X -
1709624-02	OB-05_17SN001_091517_RAS_02_WB	0.252	20	QC	-	-	MS/MSD	100X -
1709624-03	OB-05_17SN001_091517_RAS_03_WB	0.251	20	-	-	-	2nd fish from 1709624-01	100X -
1709624-04	OB-05_17SN001_091517_RAS_04_WB	0.253	20	-	-	-	2nd fish from 1709624-02	100X -
1709624-05	OB-05_17SN001_091517_RAS_05_WB	0.259	20	-	-	-	3rd fish from 1709624-02	100X -
1709626-04	OB-01_17SN001_091617_RAS_04_WB	0.265	20	-	-	-		100X -
1709626-05	OB-01_17SN001_091617_RAS_05_WB	0.277	20	-	-	-		100X -
1709626-06	OB-01_17SN001_091617_RAS_06_WB	0.258	20	-	-	-		100X -
1709626-07	OB-01_17SN001_091617_RAS_07_WB	0.281	20	-	-	-		100X -
1709626-08	OB-01_17SN001_091617_RAS_08_WB	0.266	20	-	-	-		100X -
1709626-09	OB-01_17SN001_091617_RAS_09_WB	0.266	20	-	-	-		100X -
1709626-10	OB-01_17SN001_091617_RAS_10_WB	0.279	20	-	-	-		100X -
1709626-11	OB-01_17SN001_091617_RAS_11_WB	0.275	20	-	-	-		100X -
1709626-12	OB-01_17SN001_091617_RAS_12_WB	0.27	20	-	-	-		100X -
1709626-13	OB-01_17SN001_091617_RAS_13_WB	0.273	20	-	-	-		100X -
1709626-14	OB-01_17SN001_091617_RAS_14_WB	0.272	20	-	-	-		100X -
1709626-15	OB-01_17SN001_091617_RAS_15_WB	0.262	20	-	-	-		100X -
1709626-16	OB-01_17SN001_091617_RAS_16_WB	0.281	20	-	-	-		100X -
1709626-17	OB-01_17SN001_091617_RAS_17_WB	0.27	20	-	-	-		100X -

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

10/19/17 DM

F710260

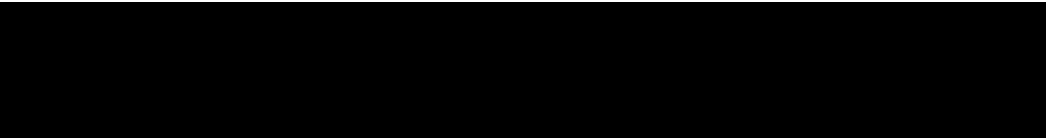
Eurofins Frontier Global Sciences, Inc.

Prepared: 10/6/2017

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

1709626-18	OB-01_17SN001_091617_RAS_18_WB	0.285	20	-	-	-	100X
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Technician: WFP Batch#: F710260 Date: 10/9/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19 (DORM4) Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 13:40 Actual Temp. (raw): 70.1 °C w/ CF: 70.69.8°C w/F 10/16/17
 Time out: 15:40 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705959) Spike vol.: 100 µL (LIMS ID: 1705954)
 Spike Witness: DM 10/10/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0407852 Calibration Date: 10/9/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705927 Dispenser #: 0262749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: A8

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710260 - Blk1	0.275	23	1709626 - 10	0.279	BS2 = DORM4
2	F710260 - Blk2	0.292	24	1709626 - 11	0.275	LIMS: 1705412
3	F710260 - Blk3	0.275	25	1709626 - 12	0.270	Balance: 1.9
4	F710260 - BS1	0.255	26	1709626 - 13	0.273	Comments
5	F710260 - BSD1	0.286	27	1709626 - 14	0.272	BS1/BSD1 spiked with 20 µL of 1704021
6	F710260 - BS2	0.1277	28	1709626 - 15	0.262	w/F 10/9/17
7	1709624 - 01	0.251	29	1709626 - 16	0.281	DUPI/MSI/MSDI
8	1709624 - 02	0.252	30	1709626 - 17	0.270	Source: 1709624-02
9	F710260 - DUPI	w/F 10/9/17	31	1709626 - 18	0.285	MS2/MSD2
10	MSI	w/F 10/9/17	32	F710260 - DUPI	0.288	Source: 1709626-04
11	MSDI	w/F 10/9/17	33	F710260 - MSI	0.260	Pre/Post blanks for 1709624, 1709626 are in batch F710250
12	1709624 - 03	0.251	34	F710260 - MSD1	0.277	
13	1709624 - 04	0.253	35			*Not enough sample for required QC of 1709624-02
14	1709624 - 05	0.259	36			w/F 10/9/17
15	1709626 - 04	0.265	37			
16	F710260 - MS2	0.267	38			
17	F710260 - MSD2	0.267	39			
18	1709626 - 05	0.277	40			
19	1709626 - 06	0.258	41			
20	1709626 - 07	0.281	42			
21	1709626 - 08	0.266	43			
22	1709626 - 09	0.266	44			

PREPARATION BENCH SHEET

F710262

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710262-BLK1	Blank	0.25	20					
F710262-BLK2	Blank	0.25	20					
F710262-BLK3	Blank	0.25	20					
F710262-BS1	LCS	0.25	20	1704421	20			
F710262-BS2	DORM4	0.1275	20	1705412	127.5			
F710262-BSD1	LCS Dup	0.25	20	1704421	20			
F710262-DUP1	Duplicate [1709626-19]	0.291	20					
F710262-MS1	Matrix Spike [1709626-19]	0.279	20	1705554	100			
F710262-MS2	Matrix Spike [1709627-01RE1]	0.28	20	1705554	100			
F710262-MSD1	Matrix Spike Dup [1709626-19]	0.281	20	1705554	100			
F710262-MSD2	Matrix Spike Dup [1709627-01RE1]	0.256	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705927	70/30 Digestion Acid	02-Apr-18 00:00
			1705959	5% BrCl	22-Jan-18 00:00
			1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

PREPARATION BENCH SHEET

F710262

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709626-19	OB-01_17SN001_091617_RAS_19_WB	0.281	20	-	-	-		
1709626-20	OB-01_17SN001_091617_RAS_20_WB	0.286	20	-	-	-		
1709627-01	FRB-01_17HC001_091317_BLM_01_WB	0.292	20	QC	-	-	MS/MSD	
1709627-01RE1	FRB-01_17HC001_091317_BLM_01_WB	0.292	20	QC	-	-	MS/MSD Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709627-02	FRB-01_17HC001_091317_BLM_02_WB	0.261	20	-	-	-		
1709627-02RE1	FRB-01_17HC001_091317_BLM_02_WB	0.261	20	-	-	-	Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709627-03	FRB-01_17HC001_091317_BLM_03_WB	0.255	20	-	-	-		
1709627-04	FRB-01_17HC001_091317_BLM_04_WB	0.276	20	-	-	-		
1709627-05	FRB-01_17HC001_091317_BLM_05_WB	0.273	20	-	-	-		
1709627-05RE1	FRB-01_17HC001_091317_BLM_05_WB	0.273	20	-	-	-	Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709627-06	FRB-01_17HC001_091317_BLM_06_WB	0.286	20	-	-	-		
1709627-06RE1	FRB-01_17HC001_091317_BLM_06_WB	0.286	20	-	-	-	Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709627-07	FRB-01_17HC001_091317_BLM_07_WB	0.251	20	-	-	-		
1709627-08	FRB-01_17HC001_091317_BLM_08_WB	0.272	20	-	-	-		
1709627-09	FRB-01_17HC001_091317_BLM_09_WB	0.252	20	-	-	-		
1709627-09RE1	FRB-01_17HC001_091317_BLM_09_WB	0.252	20	-	-	-	Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709627-10	FRB-01_17HC001_091317_BLM_10_WB	0.265	20	-	-	-		
1709627-11	FRB-01_17HC001_091317_BLM_11_WB	0.282	20	-	-	-		
1709627-12	FRB-01_17HC001_091317_BLM_12_WB	0.258	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710262

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

1709627-13	FRB-01_17HC001_091317_BLM_13_WB	0.26	20	-	-	-		
1709627-14	FRB-01_17HC001_091317_BLM_14_WB	0.271	20	-	-	-		
1709627-15	FRB-01_17HC001_091317_BLM_15_WB	0.271	20	-	-	-		
1709627-16	FRB-01_17HC001_091317_BLM_16_WB	0.283	20	-	-	-		
1709627-17	FRB-01_17HC001_091317_BLM_17_WB	0.258	20	-	-	-		
1709627-18	FRB-01_17HC001_091317_BLM_18_WB	0.259	20	-	-	-		



PREPARATION BENCH SHEET

2600-2
10/19/17 DM

F710262

Eurofins Frontier Global Sciences, Inc.

Prepared: 10/6/2017

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710262-BLK1	Blank	0.25	20					20X -
F710262-BLK2	Blank	0.25	20					20X -
F710262-BLK3	Blank	0.25	20					20X -
F710262-BS1	LCS	0.25	20	1704421				20X -
F710262-BS2	DORM4	0.1275	20	1705412	127.5			400X -
F710262-BSD1	LCS Dup	0.25	20	1704421				20X -
F710262-DUP1	Duplicate [1709626-19]	0.291	20					100X -
F710262-MS1	Matrix Spike [1709626-19]	0.279	20	1705554	100			400X -
F710262-MS2	Matrix Spike [1709627-01] REI	0.28	20	1705554	100			400X -
F710262-MSD1	Matrix Spike Dup [1709626-19]	0.281	20	1705554	100			400X -
F710262-MSD2	Matrix Spike Dup [1709627-01] REI	0.256	20	1705554	100			400X -

Standard ID(s):	Description:
1704421	THg 100ng/mL Primary Spiking Standard
1705412	DORM-4
1705554	THg 1,000ng/mL Secondary Spiking Standard

Expiration:
21-Oct-17 00:00
06-Jan-20 00:00
18-Mar-18 00:00

Reagent ID(s):	Description:
1702551	Boiling Chips for AFS prep
1705927	70/30 Digestion Acid
1705959	5% BrCl

Expiration:
31-Dec-17 00:00
02-Apr-18 00:00
22-Jan-18 00:00

1703182
1705410
1705611
1706142

PREPARATION BENCH SHEET

F710262

Eurofins Frontier Global Sciences, Inc.

2600.2
10/19/17 DM

Prepared: 10/6/2017

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix: Tissue

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709626-19	OB-01_17SN001_091617_RAS_19_WB	0.281	20	-	-	-		100X
1709626-20	OB-01_17SN001_091617_RAS_20_WB	0.286	20	-	-	-		100X
1709627-01	FRB-01_17HC001_091317_BLM_01_WB	0.292	20	QC	-	-	MS/MSD	100X → 20X
1709627-02	FRB-01_17HC001_091317_BLM_02_WB	0.261	20	-	-	-		100X → 20X
1709627-03	FRB-01_17HC001_091317_BLM_03_WB	0.255	20	-	-	-		100X
1709627-04	FRB-01_17HC001_091317_BLM_04_WB	0.276	20	-	-	-		100X
1709627-05	FRB-01_17HC001_091317_BLM_05_WB	0.273	20	-	-	-		100X → 20X
1709627-06	FRB-01_17HC001_091317_BLM_06_WB	0.286	20	-	-	-		100X → 20X
1709627-07	FRB-01_17HC001_091317_BLM_07_WB	0.251	20	-	-	-		100X
1709627-08	FRB-01_17HC001_091317_BLM_08_WB	0.272	20	-	-	-		100X
1709627-09	FRB-01_17HC001_091317_BLM_09_WB	0.252	20	-	-	-		100X → 20X
1709627-10	FRB-01_17HC001_091317_BLM_10_WB	0.265	20	-	-	-		20X
1709627-11	FRB-01_17HC001_091317_BLM_11_WB	0.282	20	-	-	-		20X
1709627-12	FRB-01_17HC001_091317_BLM_12_WB	0.258	20	-	-	-		20X
1709627-13	FRB-01_17HC001_091317_BLM_13_WB	0.26	20	-	-	-		20X
1709627-14	FRB-01_17HC001_091317_BLM_14_WB	0.271	20	-	-	-		20X
1709627-15	FRB-01_17HC001_091317_BLM_15_WB	0.271	20	-	-	-		20X
1709627-16	FRB-01_17HC001_091317_BLM_16_WB	0.283	20	-	-	-		20X
1709627-17	FRB-01_17HC001_091317_BLM_17_WB	0.258	20	-	-	-		20X

PREPARATION BENCH SHEET

2000-2
10/19/17 DM

F710262

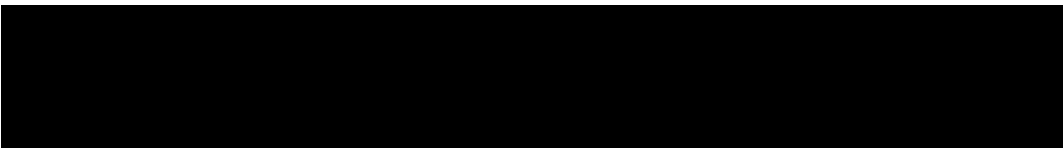
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/6/2017

1709627-18	FRB-01_17HC001_091317_BLM_18_WB	0.259	20	-	-	-	20X
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Technician: CWF Batch#: F710262 Date: 10/9/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19(DORMY) Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 3:40 Actual Temp. (raw): 70.1 °C w/ CF: 69.8 °C
 Time out: 5:40 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705959) Spike vol.: 100 ^{us/msd} µL (LIMS ID: 1705554)
 Spike Witness: DM 10/10/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0007852 Calibration Date: 10/9/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705927 Dispenser #: 0212749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: A8

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710262 - BLU1	0.257	23	1709627 - 10	0.265	BS2 = DORMY LIMS: 1705912 Balance: 1g
2	F710262 - BLU2	0.281	24	1709627 - 11	0.282	
3	F710262 - BLU3	0.262	25	1709627 - 12	0.258	
4	F710262 - BSL	0.268	26	1709627 - 13	0.260	Comments
5	F710262 - BSD1	0.271	27	1709627 - 14	0.271	
6	F710262 - BS2	0.1275	28	1709627 - 15	0.271	BS1/BS2 spiked with 20µL of 1704421 DUP1/MS1/MSD1 source: 1709616-19
7	1709626 - 19	0.281	29	1709627 - 16	0.283	
8	F710262 - DUP1	0.291	30	1709627 - 17	0.258	MS2/MSD2 source: 1709627-01
9	F710262 - MS1	0.279	31	1709627 - 18	0.259	
10	F710262 - MSD1	0.281	32			
11	1709626 - 20	0.286	33			
12	1709627 - 01	0.292	34			
13	F710262 - MS2	0.280	35			
14	F710262 - MSD2	0.256	36			
15	1709627 - 02	0.261	37			
16	1709627 - 03	0.255	38			
17	1709627 - 04	0.276	39			
18	1709627 - 05	0.273	40			
19	1709627 - 06	0.286	41			
20	1709627 - 07	0.251	42			
21	1709627 - 08	0.272	43			
22	1709627 - 09	0.252	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7J20014, 7J20015
Reviewer:	<i>R 10/20/17</i>	Dataset ID(s):	THG26002-171019-1
Date:	10/20/2017	WO (s) #:	VARIOUS
Batch #(s):	F710262, F710405, F710260, F710387		

• Select the correct preparation method.

Analyte	Prep Method	Matrix
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest Sed/Soil
<input checked="" type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation Water
<input type="checkbox"/> Hg0	NA	NA Water
<input type="checkbox"/> Inorg Hg	NA	NA Water

Analyst Initials: DM Reviewer Initials: R 10/20/17

- | | | | |
|---|---|--|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | | | |
| (b) Check 5% of transcription from Instrument print-out and Excel file | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | | | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 50 ml / aliquot = Excel dilution value | | | |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J20014, 7J20015
Reviewer: 0 <i>DM 10/20/17</i>	Dataset ID(s): THG26002-171019-1
Date: 10/20/2017	WO (s) #: VARIOUS
Batch #(s): F710262, F710405, F710260, F710387	0

Analyst Initials DM **Reviewer Initials** DM 10/20/17

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: F710387-DUP1 FAILED. HIGH RPD
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: _____
- (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
- (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
- (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
- (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7J20014, 7J20015
Reviewer: 0 <i>DM 10/20/17</i>	Dataset ID(s): THG26002-171019-1
Date: 10/20/2017	WO (s) #: VARIOUS
Batch #(s): F710262, F710405, F710260, F710387	0

Analyst Initials DM **Reviewer Initials** DM 10/20/17

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 11/23/16, 12/1/16 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2016 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 7/28/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 7/28/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709629

PO#

C012505850

October 21, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709629

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October 21, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-FP_17HC001_091917_BLM_01_WB	1709629-01	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_02_WB	1709629-02	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_03_WB	1709629-03	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_04_WB	1709629-04	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_05_WB	1709629-05	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_06_WB	1709629-06	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_07_WB	1709629-07	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_08_WB	1709629-08	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_09_WB	1709629-09	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_10_WB	1709629-10	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_11_WB	1709629-11	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_12_WB	1709629-12	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_13_WB	1709629-13	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_14_WB	1709629-14	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_15_WB	1709629-15	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_16_WB	1709629-16	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_17_WB	1709629-17	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_18_WB	1709629-18	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_19_WB	1709629-19	Tissue	19-Sep-17 16:00	22-Sep-17 10:25
ES-FP_17HC001_091917_BLM_20_WB	1709629-20	Tissue	19-Sep-17 16:00	22-Sep-17 10:25

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
21-Oct-17 16:16

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM. The samples were received intact, on-ice within two sealed coolers at -27.1 and -21.6 degrees Celsius.

Client requested Lipids Analysis by NOAA 1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches; F710290, and F710291. Sample 1709629-01 was used as the QC source in batch F710290. Sample 1709629-19 was used as the QC source in batch F710291. These samples were analyzed in two sequences; 7J19011 and 7J18020.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery

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AMEC Foster Wheeler
271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

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Amy Goodall, Project Manager

Sample Receipt Checklist

Client: AMSC Parker Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/23/17 Labeled By: CSJ

Project: _____

Received By: LM Label Verified By: BC

of Coolers Received: 2

Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>170404166</u> CF: <u>FC.1</u> °C	Date/time: <u>9/22/17 10:25</u> By: <u>LM</u>
Cooler 1: <u>-27.22</u> °C w/CF: <u>-27.12</u> °C	Cooler 4: °C w/CF: °C
Cooler 2: <u>-21.73</u> °C w/CF: <u>-21.63</u> °C	Cooler 5: °C w/CF: °C
Cooler 3: °C w/CF: °C	Cooler 6: °C w/CF: °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	Y	
Preservation type:	N	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4846 Cooler 2: 7878 1037 1884

1709629





AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

ES-FP_17HC001_091917_BLM_01_WB
1709629-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	48.8	0.401	3.58	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	
---------	------	-------	------	------	-----	---------	-----------	---------	-----------	-----------	--



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

**ES-FP_17HC001_091917_BLM_02_WB
1709629-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	58.1	0.431	3.85	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

ES-FP_17HC001_091917_BLM_03_WB
1709629-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	81.9	0.388	3.46	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

ES-FP_17HC001_091917_BLM_04_WB
1709629-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	112	0.423	3.77	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

ES-FP_17HC001_091917_BLM_05_WB
1709629-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	53.0	0.418	3.73	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

ES-FP_17HC001_091917_BLM_06_WB
1709629-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	114	0.436	3.89	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

ES-FP_17HC001_091917_BLM_07_WB
1709629-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	115	0.401	3.58	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

ES-FP_17HC001_091917_BLM_08_WB
1709629-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	39.1	0.432	3.86	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

ES-FP_17HC001_091917_BLM_09_WB
1709629-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	73.4	0.432	3.86	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

**ES-FP_17HC001_091917_BLM_10_WB
1709629-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	140	0.443	3.95	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

**ES-FP_17HC001_091917_BLM_11_WB
1709629-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	168	0.392	3.50	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

**ES-FP_17HC001_091917_BLM_12_WB
1709629-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	96.7	0.415	3.70	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

ES-FP_17HC001_091917_BLM_13_WB
1709629-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	87.0	0.443	3.95	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

ES-FP_17HC001_091917_BLM_14_WB
1709629-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	181	0.399	3.56	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

ES-FP_17HC001_091917_BLM_15_WB
1709629-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	122	0.441	3.94	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

ES-FP_17HC001_091917_BLM_16_WB
1709629-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	55.9	0.432	3.86	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

**ES-FP_17HC001_091917_BLM_17_WB
1709629-17**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	91.5	0.434	3.88	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

**ES-FP_17HC001_091917_BLM_18_WB
1709629-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	82.1	0.410	3.66	ng/g	100	F710290	10-Oct-17	7J19011	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

**ES-FP_17HC001_091917_BLM_19_WB
1709629-19**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	72.0	0.401	3.58	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

**ES-FP_17HC001_091917_BLM_20_WB
1709629-20**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	97.3	0.404	3.61	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J18020 - F710291											
Cal Standard (7J18020-CAL1)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.498	-		ng/L	0.50100		99.5				
Cal Standard (7J18020-CAL2)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	1.042	-		ng/L	1.0020		104				
Cal Standard (7J18020-CAL3)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.049	-		ng/L	5.0100		101				
Cal Standard (7J18020-CAL4)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	19.83	-		ng/L	20.040		99.0				
Cal Standard (7J18020-CAL5)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	38.38	-		ng/L	40.080		95.8				
Calibration Blank (7J18020-CCB1)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.036	-		ng/L							
Calibration Blank (7J18020-CCB2)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.051	-		ng/L							
Calibration Blank (7J18020-CCB3)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.070	-		ng/L							
Calibration Blank (7J18020-CCB4)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.053	-		ng/L							
Calibration Blank (7J18020-CCB5)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.145	-		ng/L							

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J18020 - F710291

Calibration Blank (7J18020-CCB6)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.085	-		ng/L							
Calibration Blank (7J18020-CCB7)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.122	-		ng/L							
Calibration Blank (7J18020-CCB8)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.155	-		ng/L							
Calibration Blank (7J18020-CCB9)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.136	-		ng/L							
Calibration Check (7J18020-CCV1)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	4.895	-		ng/L	5.0000		97.9	77-123			
Calibration Check (7J18020-CCV2)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.022	-		ng/L	5.0000		100	77-123			
Calibration Check (7J18020-CCV3)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	4.868	-		ng/L	5.0000		97.4	77-123			
Calibration Check (7J18020-CCV4)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.199	-		ng/L	5.0000		104	77-123			
Calibration Check (7J18020-CCV5)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.228	-		ng/L	5.0000		105	77-123			
Calibration Check (7J18020-CCV6)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	4.961	-		ng/L	5.0000		99.2	77-123			

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 16:16
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J18020 - F710291

Calibration Check (7J18020-CCV7) Prepared: 17-Oct-17 Analyzed: 18-Oct-17

Mercury	5.106	-		ng/L	5.0000		102	77-123			
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Calibration Check (7J18020-CCV8) Prepared: 17-Oct-17 Analyzed: 18-Oct-17

Mercury	5.130	-		ng/L	5.0000		103	77-123			
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Calibration Check (7J18020-CCV9) Prepared: 17-Oct-17 Analyzed: 18-Oct-17

Mercury	5.090	-		ng/L	5.0000		102	77-123			
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Instrument Blank (7J18020-IBL1) Prepared: 17-Oct-17 Analyzed: 18-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J18020-IBL2) Prepared: 17-Oct-17 Analyzed: 18-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J18020-IBL3) Prepared: 17-Oct-17 Analyzed: 18-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7J18020-ICV1) Prepared: 17-Oct-17 Analyzed: 18-Oct-17

Mercury	5.020	-		ng/L	5.0000		100	79-121			
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Batch 7J19011 - F710289

Cal Standard (7J19011-CAL1) Prepared & Analyzed: 18-Oct-17

Mercury	0.518	-		ng/L	0.50100		103				
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Cal Standard (7J19011-CAL2) Prepared & Analyzed: 18-Oct-17

Mercury	1.028	-		ng/L	1.0020		103				
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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J19011 - F710289

Cal Standard (7J19011-CAL3)						Prepared & Analyzed: 18-Oct-17					
Mercury	4.997	-		ng/L	5.0100		99.7				
Cal Standard (7J19011-CAL4)						Prepared & Analyzed: 18-Oct-17					
Mercury	19.53	-		ng/L	20.040		97.5				
Cal Standard (7J19011-CAL5)						Prepared & Analyzed: 18-Oct-17					
Mercury	38.34	-		ng/L	40.080		95.7				
Calibration Blank (7J19011-CCB1)						Prepared & Analyzed: 18-Oct-17					
Mercury	0.040	-		ng/L							
Calibration Blank (7J19011-CCB2)						Prepared & Analyzed: 18-Oct-17					
Mercury	0.118	-		ng/L							
Calibration Blank (7J19011-CCB3)						Prepared & Analyzed: 18-Oct-17					
Mercury	0.104	-		ng/L							
Calibration Blank (7J19011-CCB4)						Prepared & Analyzed: 18-Oct-17					
Mercury	0.047	-		ng/L							
Calibration Blank (7J19011-CCB5)						Prepared & Analyzed: 18-Oct-17					
Mercury	0.072	-		ng/L							
Calibration Blank (7J19011-CCB6)						Prepared & Analyzed: 18-Oct-17					
Mercury	0.114	-		ng/L							
Calibration Blank (7J19011-CCB7)						Prepared & Analyzed: 18-Oct-17					
Mercury	0.177	-		ng/L							

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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J19011 - F710289

Calibration Check (7J19011-CCV1)											
Prepared & Analyzed: 18-Oct-17											
Mercury	4.802	-		ng/L	5.0000		96.0	77-123			
Calibration Check (7J19011-CCV2)											
Prepared & Analyzed: 18-Oct-17											
Mercury	4.917	-		ng/L	5.0000		98.3	77-123			
Calibration Check (7J19011-CCV3)											
Prepared & Analyzed: 18-Oct-17											
Mercury	5.109	-		ng/L	5.0000		102	77-123			
Calibration Check (7J19011-CCV4)											
Prepared & Analyzed: 18-Oct-17											
Mercury	4.926	-		ng/L	5.0000		98.5	77-123			
Calibration Check (7J19011-CCV5)											
Prepared & Analyzed: 18-Oct-17											
Mercury	4.979	-		ng/L	5.0000		99.6	77-123			
Calibration Check (7J19011-CCV6)											
Prepared & Analyzed: 18-Oct-17											
Mercury	4.967	-		ng/L	5.0000		99.3	77-123			
Calibration Check (7J19011-CCV7)											
Prepared & Analyzed: 18-Oct-17											
Mercury	5.194	-		ng/L	5.0000		104	77-123			
Instrument Blank (7J19011-IBL1)											
Prepared & Analyzed: 18-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J19011-IBL2)											
Prepared & Analyzed: 18-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J19011-IBL3)											
Prepared & Analyzed: 18-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 16:16
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J19011 - F710289											
Initial Cal Check (7J19011-ICV1)					Prepared & Analyzed: 18-Oct-17						
Mercury	5.088	-		ng/L	5.0000		102	79-121			
Batch F710290 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710290-BLK1)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.291	0.090	0.800	ng/g							J
Blank (F710290-BLK2)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.131	0.090	0.800	ng/g							J
Blank (F710290-BLK3)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.118	0.090	0.800	ng/g							J
Blank (F710290-BLK4)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.078	0.692	ng/g							F-03, U
Blank (F710290-BLK5)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.077	0.685	ng/g							F-03, U
LCS (F710290-BS1)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	8.309	0.090	0.800	ng/g	8.0160		104	75-125			
LCS (F710290-BS2)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	331.7	3.54	31.6	ng/g	373.70		88.8	75-125			
LCS Dup (F710290-BSD1)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	8.068	0.090	0.800	ng/g	8.0160		101	75-125	2.95	24	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 16:16
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710290 - EFGS-011 Nitric/Sulfuric Hg Digestion

Duplicate (F710290-DUP1)		Source: 1709628-19		Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	87.12	0.396	3.53	ng/g		86.08			1.21	24	
Matrix Spike (F710290-MS1)		Source: 1709628-19		Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	444.0	1.70	15.2	ng/g	380.23	86.08	94.1	71-125			
Matrix Spike (F710290-MS2)		Source: 1709629-01		Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	445.5	1.70	15.2	ng/g	378.79	48.83	105	71-125			
Matrix Spike Dup (F710290-MSD1)		Source: 1709628-19		Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	441.5	1.61	14.4	ng/g	359.71	86.08	98.8	71-125	4.85	24	
Matrix Spike Dup (F710290-MSD2)		Source: 1709629-01		Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	416.9	1.62	14.5	ng/g	362.32	48.83	102	71-125	3.02	24	

Batch F710291 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710291-BLK1)				Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	0.308	0.090	0.800	ng/g							J
Blank (F710291-BLK2)				Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	0.176	0.090	0.800	ng/g							J
Blank (F710291-BLK3)				Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	0.197	0.090	0.800	ng/g							J
Blank (F710291-BLK4)				Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	ND	0.075	0.671	ng/g							F-03, U

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710291 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710291-BLK5)				Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	ND	0.076	0.678	ng/g							F-03, U
LCS (F710291-BS1)				Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	8.345	0.090	0.800	ng/g	8.0160		104	75-125			
LCS (F710291-BS2)				Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	370.7	3.45	30.8	ng/g	373.70		99.2	75-125			
LCS Dup (F710291-BSD1)				Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	8.558	0.090	0.800	ng/g	8.0160		107	75-125	2.52	24	
Duplicate (F710291-DUP1)				Source: 1709629-19 Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	73.64	0.400	3.57	ng/g		72.02			2.22	24	
Matrix Spike (F710291-MS1)				Source: 1709629-19 Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	427.8	1.54	13.7	ng/g	343.64	72.02	104	71-125			
Matrix Spike (F710291-MS2)				Source: 1709630-08 Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	469.6	1.72	15.3	ng/g	383.14	121.7	90.8	71-125			
Matrix Spike Dup (F710291-MSD1)				Source: 1709629-19 Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	402.4	1.64	14.6	ng/g	364.96	72.02	90.5	71-125	13.4	24	
Matrix Spike Dup (F710291-MSD2)				Source: 1709630-08 Prepared: 10-Oct-17 Analyzed: 18-Oct-17							
Mercury	428.9	1.57	14.0	ng/g	350.88	121.7	87.6	71-125	3.65	24	

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The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:16

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26002-171018-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 18, 2017
Instrument #: Hg2600-2
LIMS Sequence #: 7J19011

Analyst: DM2
Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	106.39 units	212.79	95.38 units	190.76	103.7 %Rec
SEQ-CAL2	1	1.00 ng/L	200.22 units	200.22	189.21 units	189.21	102.8 %Rec
SEQ-CAL3	1	5.00 ng/L	930.46 units	186.09	919.45 units	183.89	99.9 %Rec
SEQ-CAL4	1	20.00 ng/L	3604.84 units	180.24	3593.83 units	179.69	97.7 %Rec
SEQ-CAL5	1	40.00 ng/L	7065.80 units	176.65	7054.79 units	176.37	95.9 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
183.99	+/- 6.12	3.3% RSD	191.20

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	11.01 units	±1.83	0.06 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.341 ng/L	±0.632
BLK	2	3	2.247 ng/L	±1.205
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER-REVIEWED
 INITIALS: BC 10/19/17

Instrument	Sample			Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
	Analyst	Type	LabNumber												
Hg2600-2	DM2	CAL	SEQ-IBL1	1	10/18/2017 10:25:31	87582-1.RAW	10:25:31 AM	12.10			1.1	0.006	0.006	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	10/18/2017 10:29:39	87583-1.RAW	10:29:39 AM	12.03			1.0	0.006	0.006	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	10/18/2017 10:33:47	87584-1.RAW	10:33:47 AM	8.90			-2.1	-0.011	-0.011	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	10/18/2017 10:37:56	87585-1.RAW	10:37:56 AM	106.39			95.4	0.518	0.518	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	10/18/2017 10:42:04	87586-1.RAW	10:42:04 AM	200.22			189.2	1.028	1.028	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	10/18/2017 10:46:13	87587-1.RAW	10:46:13 AM	930.46			919.5	4.997	4.997	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	10/18/2017 10:50:21	87588-1.RAW	10:50:21 AM	3604.84			3593.8	19.533	19.533	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	10/18/2017 10:54:30	87589-1.RAW	10:54:30 AM	7065.80			7054.8	38.344	38.344	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	10/18/2017 10:58:38	87590-1.RAW	10:58:38 AM	947.05			936.0	5.088	5.088	ng/L	
Hg2600-2	DM2	BLK	F710289-BLK1	20	10/18/2017 11:02:47	87591-1.RAW	11:02:47 AM	29.93	1		18.9	0.103	2.057	ng/L	
Hg2600-2	DM2	BLK	F710289-BLK2	20	10/18/2017 11:06:55	87592-1.RAW	11:06:55 AM	21.19	1		10.2	0.055	1.107	ng/L	
Hg2600-2	DM2	BLK	F710289-BLK3	20	10/18/2017 11:11:03	87593-1.RAW	11:11:03 AM	18.92	1		7.9	0.043	0.860	ng/L	
Hg2600-2	DM2	SAM	*F710289-BLK4	20	10/18/2017 11:15:12	87594-1.RAW	11:15:12 AM	19.30	1		8.3	-0.022	-0.440	ng/L	
Hg2600-2	DM2	SAM	*F710289-BLK5	20	10/18/2017 11:19:20	87595-1.RAW	11:19:20 AM	18.60	1		7.6	-0.026	-0.516	ng/L	
Hg2600-2	DM2	SAM	*F710289-BLK6	20	10/18/2017 11:23:29	87596-1.RAW	11:23:29 AM	14.45	1		3.4	-0.048	-0.967	ng/L	
Hg2600-2	DM2	SAM	*F710289-BLK7	20	10/18/2017 11:27:37	87597-1.RAW	11:27:37 AM	15.07	1		4.1	-0.045	-0.900	ng/L	
Hg2600-2	DM2	SAM	F710289-BS1	20	10/18/2017 11:31:46	87598-1.RAW	11:31:46 AM	939.34	1		928.3	4.979	99.573	ng/L	
Hg2600-2	DM2	SAM	F710289-BSD1	20	10/18/2017 11:35:54	87599-1.RAW	11:35:54 AM	943.91	1		932.9	5.003	100.070	ng/L	
Hg2600-2	DM2	SAM	F710289-BS2	400	10/18/2017 11:40:03	87600-1.RAW	11:40:03 AM	948.71	1		937.7	5.093	2037.305	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	10/18/2017 11:44:11	87601-1.RAW	11:44:11 AM	894.56			883.5	4.802	4.802	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	10/18/2017 11:48:19	87602-1.RAW	11:48:19 AM	18.46			7.4	0.040	0.040	ng/L	
Hg2600-2	DM2	SAM	1709627-19	100	10/18/2017 11:52:28	87603-1.RAW	11:52:28 AM	196.30	1		185.3	0.994	99.369	ng/L	
Hg2600-2	DM2	SAM	1709627-20	100	10/18/2017 11:56:36	87604-1.RAW	11:56:36 AM	184.03	1		173.0	0.927	92.700	ng/L	
Hg2600-2	DM2	SAM	1709628-01	100	10/18/2017 12:00:45	87605-1.RAW	12:00:45 PM	1870.25	1		1859.2	10.092	1009.194	ng/L	
Hg2600-2	DM2	SAM	1709628-02	100	10/18/2017 12:04:53	87606-1.RAW	12:04:53 PM	2781.65	1		2770.6	15.046	1504.564	ng/L	
Hg2600-2	DM2	SAM	1709628-03	100	10/18/2017 12:09:02	87607-1.RAW	12:09:02 PM	2703.17	1		2692.2	14.619	1461.907	ng/L	
Hg2600-2	DM2	SAM	1709628-04	100	10/18/2017 12:13:10	87608-1.RAW	12:13:10 PM	2895.15	1		2884.1	15.663	1566.254	ng/L	
Hg2600-2	DM2	SAM	1709628-05	100	10/18/2017 12:17:19	87609-1.RAW	12:17:19 PM	2321.52	1		2310.5	12.545	1254.469	ng/L	
Hg2600-2	DM2	SAM	1709628-06	100	10/18/2017 12:21:27	87610-1.RAW	12:21:27 PM	1644.53	1		1633.5	8.865	886.512	ng/L	
Hg2600-2	DM2	SAM	1709628-07	100	10/18/2017 12:25:35	87611-1.RAW	12:25:35 PM	2485.82	1		2474.8	13.438	1343.774	ng/L	
Hg2600-2	DM2	SAM	1709628-08	100	10/18/2017 12:29:44	87612-1.RAW	12:29:44 PM	2620.92	1		2609.9	14.172	1417.199	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	10/18/2017 12:33:52	87613-1.RAW	12:33:52 PM	915.74			904.7	4.917	4.917	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	10/18/2017 12:38:01	87614-1.RAW	12:38:01 PM	32.72			21.7	0.118	0.118	ng/L	
Hg2600-2	DM2	SAM	1709627-19RE1	20	10/18/2017 12:42:09	87615-1.RAW	12:42:09 PM	931.62	1		920.6	4.937	98.733	ng/L	
Hg2600-2	DM2	SAM	1709627-20RE1	20	10/18/2017 12:46:18	87616-1.RAW	12:46:18 PM	839.79	1		828.8	4.438	88.751	ng/L	
Hg2600-2	DM2	SAM	1709628-09	100	10/18/2017 12:50:26	87617-1.RAW	12:50:26 PM	2679.55	1		2668.5	14.491	1449.067	ng/L	
Hg2600-2	DM2	SAM	1709628-10	100	10/18/2017 12:54:35	87618-1.RAW	12:54:35 PM	2351.94	1		2340.9	12.710	1271.005	ng/L	
Hg2600-2	DM2	SAM	1709628-11	100	10/18/2017 12:58:43	87619-1.RAW	12:58:43 PM	4250.83	1		4239.8	23.031	2303.092	ng/L	
Hg2600-2	DM2	SAM	1709628-12	100	10/18/2017 13:02:51	87620-1.RAW	1:02:51 PM	2203.43	1		2192.4	11.903	1190.285	ng/L	
Hg2600-2	DM2	SAM	1709628-13	100	10/18/2017 13:07:00	87621-1.RAW	1:07:00 PM	1856.08	1		1845.1	10.015	1001.492	ng/L	
Hg2600-2	DM2	SAM	1709628-14	100	10/18/2017 13:11:08	87622-1.RAW	1:11:08 PM	2150.55	1		2139.5	11.615	1161.547	ng/L	
Hg2600-2	DM2	SAM	1709628-16	100	10/18/2017 13:15:17	87623-1.RAW	1:15:17 PM	5089.43	1		5078.4	27.589	2758.888	ng/L	
Hg2600-2	DM2	SAM	1709628-18	100	10/18/2017 13:19:25	87624-1.RAW	1:19:25 PM	2034.26	1		2023.2	10.983	1098.337	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	10/18/2017 13:23:34	87625-1.RAW	1:23:34 PM	950.96			939.9	5.109	5.109	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	10/18/2017 13:27:42	87626-1.RAW	1:27:42 PM	30.14			19.1	0.104	0.104	ng/L	
Hg2600-2	DM2	SAM	F710289-DUP1	20	10/18/2017 13:31:50	87627-1.RAW	1:31:50 PM	990.09	1		979.1	5.254	105.089	ng/L	
Hg2600-2	DM2	SAM	F710289-MS1	400	10/18/2017 13:35:59	87628-1.RAW	1:35:59 PM	2165.49	1		2154.5	11.707	4682.689	ng/L	
Hg2600-2	DM2	SAM	F710289-MSD1	400	10/18/2017 13:40:07	87629-1.RAW	1:40:07 PM	2044.29	1		2033.3	11.048	4419.182	ng/L	
Hg2600-2	DM2	SAM	F710289-MS2	400	10/18/2017 13:44:16	87630-1.RAW	1:44:16 PM	2653.93	1		2642.9	14.362	5744.602	ng/L	
Hg2600-2	DM2	SAM	F710289-MSD2	400	10/18/2017 13:48:24	87631-1.RAW	1:48:24 PM	2489.50	1		2478.5	13.468	5387.103	ng/L	
Hg2600-2	DM2	BLK	F710290-BLK1	20	10/18/2017 13:52:33	87632-1.RAW	1:52:33 PM	44.45	2		33.4	0.182	3.635	ng/L	
Hg2600-2	DM2	BLK	F710290-BLK2	20	10/18/2017 13:56:41	87633-1.RAW	1:56:41 PM	26.07	2		15.1	0.082	1.637	ng/L	
Hg2600-2	DM2	BLK	F710290-BLK3	20	10/18/2017 14:00:50	87634-1.RAW	2:00:50 PM	24.53	2		13.5	0.073	1.470	ng/L	
Hg2600-2	DM2	SAM	*F710290-BLK4	20	10/18/2017 14:04:58	87635-1.RAW	2:04:58 PM	24.64	2		13.6	-0.038	-0.766	ng/L	
Hg2600-2	DM2	SAM	*F710290-BLK5	20	10/18/2017 14:09:07	87636-1.RAW	2:09:07 PM	27.39	2		16.4	-0.023	-0.467	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	10/18/2017 14:13:15	87637-1.RAW	2:13:15 PM	917.23			906.2	4.926	4.926	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	10/18/2017 14:17:23	87638-1.RAW	2:17:23 PM	19.60			8.6	0.047	0.047	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-2	DM2	SAM	F710290-BS1	20	10/18/2017 14:21:32	87639-1.RAW	2:21:32 PM	987.19		2					
Hg2600-2	DM2	SAM	F710290-BSD1	20	10/18/2017 14:25:40	87640-1.RAW	2:25:40 PM	959.39		2		976.2	5.193	103.868	ng/L
Hg2600-2	DM2	SAM	F710290-BS2	400	10/18/2017 14:29:49	87641-1.RAW	2:29:49 PM	978.66		2		948.4	5.042	100.846	ng/L
Hg2600-2	DM2	SAM	1709628-19	100	10/18/2017 14:33:57	87642-1.RAW	2:33:57 PM	2145.19		2		967.6	5.254	2101.506	ng/L
Hg2600-2	DM2	SAM	1709628-20	100	10/18/2017 14:38:06	87643-1.RAW	2:38:06 PM	1892.34		2		2134.2	11.577	1157.724	ng/L
Hg2600-2	DM2	SAM	1709629-01	100	10/18/2017 14:42:14	87644-1.RAW	2:42:14 PM	1268.29		2		1881.3	10.203	1020.296	ng/L
Hg2600-2	DM2	SAM	1709629-02	100	10/18/2017 14:46:22	87645-1.RAW	2:46:22 PM	1404.87		2		1257.3	6.811	681.110	ng/L
Hg2600-2	DM2	SAM	1709629-03	100	10/18/2017 14:50:31	87646-1.RAW	2:50:31 PM	2192.11		2		1393.9	7.553	755.345	ng/L
Hg2600-2	DM2	SAM	1709629-04	100	10/18/2017 14:54:39	87647-1.RAW	2:54:39 PM	2752.51		2		2181.1	11.832	1183.226	ng/L
Hg2600-2	DM2	SAM	1709629-05	100	10/18/2017 14:58:48	87648-1.RAW	2:58:48 PM	1323.04		2		2741.5	14.878	1487.816	ng/L
Hg2600-2	DM2	CAL	SEQ-CCV5	1	10/18/2017 15:02:56	87649-1.RAW	3:02:56 PM	927.0553255				1312.0	7.109	710.868	ng/L
Hg2600-2	DM2	CAL	SEQ-CCB5	1	10/18/2017 15:07:05	87650-1.RAW	3:07:05 PM	24.22				916.0	4.979	4.979	ng/L
Hg2600-2	DM2	SAM	1709629-06	100	10/18/2017 15:11:13	87651-1.RAW	3:11:13 PM	2721.72		2		13.2	0.072	0.072	ng/L
Hg2600-2	DM2	SAM	1709629-07	100	10/18/2017 15:15:22	87652-1.RAW	3:15:22 PM	2964.81		2		2710.7	14.711	1471.081	ng/L
Hg2600-2	DM2	SAM	1709629-08	100	10/18/2017 15:19:30	87653-1.RAW	3:19:30 PM	946.45		2		2953.8	16.032	1603.207	ng/L
Hg2600-2	DM2	SAM	1709629-09	100	10/18/2017 15:23:38	87654-1.RAW	3:23:38 PM	1763.79		2		935.4	5.062	506.187	ng/L
Hg2600-2	DM2	SAM	1709629-10	100	10/18/2017 15:27:47	87655-1.RAW	3:27:47 PM	3279.27		2		1752.8	9.504	950.425	ng/L
Hg2600-2	DM2	SAM	1709629-11	100	10/18/2017 15:31:55	87656-1.RAW	3:31:55 PM	4435.34		2		3268.3	17.741	1774.120	ng/L
Hg2600-2	DM2	SAM	1709629-12	100	10/18/2017 15:36:04	87657-1.RAW	3:36:04 PM	2417.28		2		4424.3	24.025	2402.471	ng/L
Hg2600-2	DM2	SAM	1709629-13	100	10/18/2017 15:40:12	87658-1.RAW	3:40:12 PM	2039.83		2		2406.3	13.056	1305.613	ng/L
Hg2600-2	DM2	SAM	1709629-14	100	10/18/2017 15:44:21	87659-1.RAW	3:44:21 PM	4696.18		2		2028.8	11.005	1100.463	ng/L
Hg2600-2	DM2	SAM	1709629-15	100	10/18/2017 15:48:29	87660-1.RAW	3:48:29 PM	2867.19		2		4685.2	25.442	2544.246	ng/L
Hg2600-2	DM2	CAL	SEQ-CCV6	1	10/18/2017 15:52:38	87661-1.RAW	3:52:38 PM	924.92				2856.2	15.501	1550.150	ng/L
Hg2600-2	DM2	CAL	SEQ-CCB6	1	10/18/2017 15:56:46	87662-1.RAW	3:56:46 PM	31.96				913.9	4.967	4.967	ng/L
Hg2600-2	DM2	SAM	1709629-16	100	10/18/2017 16:00:54	87663-1.RAW	4:00:54 PM	1347.99		2		20.9	0.114	0.114	ng/L
Hg2600-2	DM2	SAM	1709629-17	100	10/18/2017 16:05:03	87664-1.RAW	4:05:03 PM	2186.77		2		1337.0	7.244	724.432	ng/L
Hg2600-2	DM2	SAM	1709629-18	100	10/18/2017 16:09:11	87665-1.RAW	4:09:11 PM	2077.26		2		2175.8	11.803	1180.327	ng/L
Hg2600-2	DM2	SAM	F710290-DUP1	100	10/18/2017 16:13:20	87666-1.RAW	4:13:20 PM	2283.24		2		2066.2	11.208	1120.804	ng/L
Hg2600-2	DM2	SAM	F710290-MS1	400	10/18/2017 16:17:28	87667-1.RAW	4:17:28 PM	2697.84		2		2272.2	12.328	1232.762	ng/L
Hg2600-2	DM2	SAM	F710290-MSD1	400	10/18/2017 16:21:37	87668-1.RAW	4:21:37 PM	2835.05		2		2686.8	14.598	5839.148	ng/L
Hg2600-2	DM2	SAM	F710290-MS2	400	10/18/2017 16:25:45	87669-1.RAW	4:25:45 PM	2716.77		2		2824.0	15.344	6137.455	ng/L
Hg2600-2	DM2	SAM	F710290-MSD2	400	10/18/2017 16:29:54	87670-1.RAW	4:29:54 PM	2658.53		2		2705.8	14.701	5880.317	ng/L
Hg2600-2	DM2	CAL	SEQ-CCV7	1	10/18/2017 16:34:23	87671-1.RAW	4:34:23 PM	966.58				2647.5	14.384	5753.691	ng/L
Hg2600-2	DM2	CAL	SEQ-CCB7	1	10/18/2017 16:38:31	87672-1.RAW	4:38:31 PM	43.50				955.6	5.194	5.194	ng/L
												32.5	0.177	0.177	ng/L

TotalMercury EPA1631
 Operat DM
 BlankSi 11.01
 Calib Eqn: Conc = (Area-11.01
 Run Date: #####
 Blank SD: 1.827159273
 Worksh THg260(CalibFa 183.99
 Status: QC Warnings:5/QC E
 Run Time: 16:30:14
 Blank RSD%: 16.59493448
 Method ##### R: 1
 R²: 0.9999
 CF SD: 6.117588184
 CF RSD%: 3.325041618
 Descrip THg26002-171018-1

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	4.22					87578-1.RAW	10:08:57	776.68	Clean	OK	1
ws				11.01	0.13					87579-1.RAW	10:13:05	35.69	Sample	OK	1
ws				11.01	0.03					87580-1.RAW	10:17:14	17.15	Sample	OK	1
ws				11.01	0.01					87581-1.RAW	10:21:22	12.11	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.07					87582-1.RAW	10:25:31	12.10	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.07					87583-1.RAW	10:29:39	12.03	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					87584-1.RAW	10:33:47	8.90	Sample	OK	1
SEQ-CAL1	A4		1	11.01	0.52			103.68		87585-1.RAW	10:37:56	106.39	Sample	OK	1
SEQ-CAL2	A5		1	11.01	1.03			102.84		87586-1.RAW	10:42:04	200.22	Sample	OK	1
SEQ-CAL3	A6		1	11.01	5.00			99.95		87587-1.RAW	10:46:13	930.46	Sample	OK	1
SEQ-CAL4	A7		1	11.01	19.53			97.67		87588-1.RAW	10:50:21	3604.84	Sample	OK	1
SEQ-CAL5	A8		1	11.01	38.34			95.86		87589-1.RAW	10:54:30	7065.80	Sample	OK	1
SEQ-ICV1	A9		1	11.01	5.09			101.75		87590-1.RAW	10:58:38	947.05	Sample	OK	1
F710289-BLK1	A10		20	11.01	2.06					87591-1.RAW	11:02:47	29.93	Sample	OK	1
F710289-BLK2	A11		20	11.01	1.11					87592-1.RAW	11:06:55	21.19	Sample	OK	1
F710289-BLK3	A12		20	11.01	0.86					87593-1.RAW	11:11:03	18.92	Sample	OK	1
*F710289-BLK4	A13		20	11.01	0.90					87594-1.RAW	11:15:12	19.30	Sample	OK	1
*F710289-BLK5	A14		20	11.01	0.83					87595-1.RAW	11:19:20	18.60	Sample	OK	1
*F710289-BLK6	A15		20	11.01	0.37					87596-1.RAW	11:23:29	14.45	Sample	OK	1
*F710289-BLK7	A16		20	11.01	0.44					87597-1.RAW	11:27:37	15.07	Sample	OK	1
F710289-BS1	A17		20	11.01	100.91					87598-1.RAW	11:31:46	939.34	Sample	OK	1
F710289-BSD1	A18		20	11.01	101.41					87599-1.RAW	11:35:54	943.91	Sample	OK	1
F710289-BS2	A19		400	11.01	2038.65					87600-1.RAW	11:40:03	948.71	Sample	OK	1
SEQ-CCV1	A20		1	11.01	4.80			96.05		87601-1.RAW	11:44:11	894.56	Sample	OK	1
SEQ-CCB1	A21		1	11.01	0.04			0.00		87602-1.RAW	11:48:19	18.46	Sample	OK	1
1709627-19	B1		100	11.01	100.71					87603-1.RAW	11:52:28	196.30	Sample	OK	1
1709627-20	B2		100	11.01	94.04					87604-1.RAW	11:56:36	184.03	Sample	OK	1
1709628-01	B3		100	11.01	1010.54					87605-1.RAW	12:00:45	1870.25	Sample	OK	1
1709628-02	B4		100	11.01	1505.90					87606-1.RAW	12:04:53	2781.65	Sample	OK	1
1709628-03	B5		100	11.01	1463.25					87607-1.RAW	12:09:02	2703.17	Sample	OK	1
1709628-04	B6		100	11.01	1567.59					87608-1.RAW	12:13:10	2895.15	Sample	OK	1
1709628-05	B7		100	11.01	1255.81					87609-1.RAW	12:17:19	2321.52	Sample	OK	1
1709628-06	B8		100	11.01	887.85					87610-1.RAW	12:21:27	1644.53	Sample	OK	1
1709628-07	B9		100	11.01	1345.12					87611-1.RAW	12:25:35	2485.82	Sample	OK	1
1709628-08	B10		100	11.01	1418.54					87612-1.RAW	12:29:44	2620.92	Sample	OK	1
SEQ-CCV2	B11		1	11.01	4.92			98.35		87613-1.RAW	12:33:52	915.74	Sample	OK	1
SEQ-CCB2	B12		1	11.01	0.12			0.00		87614-1.RAW	12:38:01	32.72	Sample	OK	1
1709627-19RE1	B13		20	11.01	100.07					87615-1.RAW	12:42:09	931.62	Sample	OK	1
1709627-20RE1	B14		20	11.01	90.09					87616-1.RAW	12:46:18	839.79	Sample	OK	1
1709628-09	B15		100	11.01	1450.41					87617-1.RAW	12:50:26	2679.55	Sample	OK	1
1709628-10	B16		100	11.01	1272.35					87618-1.RAW	12:54:35	2351.94	Sample	OK	1
1709628-11	B17		100	11.01	2304.43					87619-1.RAW	12:58:43	4250.83	Sample	OK	1
1709628-12	B18		100	11.01	1191.63					87620-1.RAW	13:02:51	2203.43	Sample	OK	1

1709628-13	B19	100	11.01	1002.83		87621-1.RAW	13:07:00	1856.08	Sample	OK	1
1709628-14	B20	100	11.01	1162.89		87622-1.RAW	13:11:08	2150.55	Sample	OK	1
1709628-16	B21	100	11.01	2760.23		87623-1.RAW	13:15:17	5089.43	Sample	FB	1
1709628-18	C1	100	11.01	1099.68		87624-1.RAW	13:19:25	2034.26	Sample	OK	1
SEQ-CCV3	C2	1	11.01	5.11	102.18	87625-1.RAW	13:23:34	950.96	Sample	OK	1
SEQ-CCB3	C3	1	11.01	0.10	0.00	87626-1.RAW	13:27:42	30.14	Sample	OK	1
F710289-DUP1	C4	20	11.01	106.43		87627-1.RAW	13:31:50	990.09	Sample	OK	1
F710289-MS1	C5	400	11.01	4684.03	4360.08	87628-1.RAW	13:35:59	2165.49	Sample	OK	1
F710289-MSD1	C6	400	11.01	4420.52		87629-1.RAW	13:40:07	2044.29	Sample	OK	1
F710289-MS2	C7	400	11.01	5745.94	129.92	87630-1.RAW	13:44:16	2653.93	Sample	OK	1
F710289-MSD2	C8	400	11.01	5388.44		87631-1.RAW	13:48:24	2489.50	Sample	OK	1
F710290-BLK1	C9	20	11.01	3.64		87632-1.RAW	13:52:33	44.45	Sample	OK	1
F710290-BLK2	C10	20	11.01	1.64		87633-1.RAW	13:56:41	26.07	Sample	OK	1
F710290-BLK3	C11	20	11.01	1.47		87634-1.RAW	14:00:50	24.53	Sample	OK	1
*F710290-BLK4	C12	20	11.01	1.48		87635-1.RAW	14:04:58	24.64	Sample	OK	1
*F710290-BLK5	C13	20	11.01	1.78		87636-1.RAW	14:09:07	27.39	Sample	OK	1
SEQ-CCV4	C14	1	11.01	4.93	98.51	87637-1.RAW	14:13:15	917.23	Sample	OK	1
SEQ-CCB4	C15	1	11.01	0.05	0.00	87638-1.RAW	14:17:23	19.60	Sample	OK	1
F710290-BS1	C16	20	11.01	106.12		87639-1.RAW	14:21:32	987.19	Sample	OK	1
F710290-BSD1	C17	20	11.01	103.09		87640-1.RAW	14:25:40	959.39	Sample	OK	1
F710290-BS2	C18	400	11.01	2103.75		87641-1.RAW	14:29:49	978.66	Sample	OK	1
1709628-19	C19	100	11.01	1159.97		87642-1.RAW	14:33:57	2145.19	Sample	OK	1
1709628-20	C20	100	11.01	1022.54		87643-1.RAW	14:38:06	1892.34	Sample	OK	1
1709629-01	C21	100	11.01	683.36		87644-1.RAW	14:42:14	1268.29	Sample	OK	1
1709629-02	A1	100	11.01	757.59		87645-1.RAW	14:46:22	1404.87	Sample	OK	1
1709629-03	A2	100	11.01	1185.47		87646-1.RAW	14:50:31	2192.11	Sample	OK	1
1709629-04	A3	100	11.01	1490.06		87647-1.RAW	14:54:39	2752.51	Sample	OK	1
1709629-05	A4	100	11.01	713.12		87648-1.RAW	14:58:48	1323.04	Sample	OK	1
SEQ-CCV5	A5	1	11.01	4.98	99.58	87649-1.RAW	15:02:56	927.06	Sample	OK	1
SEQ-CCB5	A6	1	11.01	0.07	0.00	87650-1.RAW	15:07:05	24.22	Sample	OK	1
1709629-06	A7	100	11.01	1473.33		87651-1.RAW	15:11:13	2721.72	Sample	OK	1
1709629-07	A8	100	11.01	1605.45		87652-1.RAW	15:15:22	2964.81	Sample	OK	1
1709629-08	A9	100	11.01	508.43		87653-1.RAW	15:19:30	946.45	Sample	OK	1
1709629-09	A10	100	11.01	952.67		87654-1.RAW	15:23:38	1763.79	Sample	OK	1
1709629-10	A11	100	11.01	1776.37		87655-1.RAW	15:27:47	3279.27	Sample	OK	1
1709629-11	A12	100	11.01	2404.72		87656-1.RAW	15:31:55	4435.34	Sample	OK	1
1709629-12	A13	100	11.01	1307.86		87657-1.RAW	15:36:04	2417.28	Sample	OK	1
1709629-13	A14	100	11.01	1102.71		87658-1.RAW	15:40:12	2039.83	Sample	OK	1
1709629-14	A15	100	11.01	2546.49		87659-1.RAW	15:44:21	4696.18	Sample	OK	1
1709629-15	A16	100	11.01	1552.40		87660-1.RAW	15:48:29	2867.19	Sample	OK	1
SEQ-CCV6	A17	1	11.01	4.97	99.35	87661-1.RAW	15:52:38	924.92	Sample	OK	1
SEQ-CCB6	A18	1	11.01	0.11	0.00	87662-1.RAW	15:56:46	31.96	Sample	OK	1
1709629-16	A19	100	11.01	726.68		87663-1.RAW	16:00:54	1347.99	Sample	OK	1
1709629-17	A20	100	11.01	1182.57		87664-1.RAW	16:05:03	2186.77	Sample	OK	1
1709629-18	A21	100	11.01	1123.05		87665-1.RAW	16:09:11	2077.26	Sample	OK	1
F710290-DUP1	B1	100	11.01	1235.01		87666-1.RAW	16:13:20	2283.24	Sample	OK	1
F710290-MS1	B2	400	11.01	5841.39	472.60	87667-1.RAW	16:17:28	2697.84	Sample	OK	1
F710290-MSD1	B3	400	11.01	6139.70		87668-1.RAW	16:21:37	2835.05	Sample	OK	1

F710290-MS2	B4	400	11.01	5882.56	95.78	87669-1.RAW	16:25:45	2716.77	Sample	OK	1
F710290-MSD2	B5	400	11.01	5755.94		87670-1.RAW	16:29:54	2658.53	Sample	OK	1
SEQ-CCV7	B6	1	11.01	5.19	103.87	87671-1.RAW	16:34:23	966.58	Sample	OK	1
SEQ-CCB7	B7	1	11.01	0.18	0.00	87672-1.RAW	16:38:31	43.50	Sample	OK	1

ANALYSIS SEQUENCE

7J19011

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/18/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J19011-IBL1	QC	1			
7J19011-IBL2	QC	2			
7J19011-IBL3	QC	3			
7J19011-CAL1	QC	4	1704505		
7J19011-CAL2	QC	5	1704506		
7J19011-CAL3	QC	6	1704507		
7J19011-CAL4	QC	7	1704508		
7J19011-CAL5	QC	8	1704509		
7J19011-ICV1	QC	9	1705628		
F710289-BLK1	QC	10			
F710289-BLK2	QC	11			
F710289-BLK3	QC	12			
F710289-BLK4	QC	13			
F710289-BLK5	QC	14			
F710289-BLK6	QC	15			
F710289-BLK7	QC	16			
F710289-BS1	QC	17			
F710289-BSD1	QC	18			
F710289-BS2	QC	19			
7J19011-CCV1	QC	20	1705628		
7J19011-CCB1	QC	21			
1709627-19	Hg-CVAFS-T-7030	22			
1709627-20	Hg-CVAFS-T-7030	23			
1709628-01	Hg-CVAFS-T-7030	24			
1709628-02	Hg-CVAFS-T-7030	25			
1709628-03	Hg-CVAFS-T-7030	26			
1709628-04	Hg-CVAFS-T-7030	27			
1709628-05	Hg-CVAFS-T-7030	28			
1709628-06	Hg-CVAFS-T-7030	29			
1709628-07	Hg-CVAFS-T-7030	30			
1709628-08	Hg-CVAFS-T-7030	31			
7J19011-CCV2	QC	32	1705628		
7J19011-CCB2	QC	33			
1709627-19RE1	Hg-CVAFS-T-7030	34			Added 10/19/2017 by DM2
1709627-20RE1	Hg-CVAFS-T-7030	35			Added 10/19/2017 by DM2

Due Date: 10/20/2017

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ANALYSIS SEQUENCE

7J19011

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/18/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709628-09	Hg-CVAFS-T-7030	36			
1709628-10	Hg-CVAFS-T-7030	37			
1709628-11	Hg-CVAFS-T-7030	38			
1709628-12	Hg-CVAFS-T-7030	39			
1709628-13	Hg-CVAFS-T-7030	40			
1709628-14	Hg-CVAFS-T-7030	41			
1709628-16	Hg-CVAFS-T-7030	42			
1709628-18	Hg-CVAFS-T-7030	43			
7J19011-CCV3	QC	44	1705628		
7J19011-CCB3	QC	45			
F710289-DUP1	QC	46			
F710289-MS1	QC	47			
F710289-MSD1	QC	48			
F710289-MS2	QC	49			
F710289-MSD2	QC	50			
F710290-BLK1	QC	51			
F710290-BLK2	QC	52			
F710290-BLK3	QC	53			
F710290-BLK4	QC	54			
F710290-BLK5	QC	55			
7J19011-CCV4	QC	56	1705628		
7J19011-CCB4	QC	57			
F710290-BS1	QC	58			
F710290-BSD1	QC	59			
F710290-BS2	QC	60			
1709628-19	Hg-CVAFS-T-7030	61			
1709628-20	Hg-CVAFS-T-7030	62			
1709629-01	Hg-CVAFS-T-7030	63			
1709629-02	Hg-CVAFS-T-7030	64			
1709629-03	Hg-CVAFS-T-7030	65			
1709629-04	Hg-CVAFS-T-7030	66			
1709629-05	Hg-CVAFS-T-7030	67			
7J19011-CCV5	QC	68	1705628		
7J19011-CCB5	QC	69			
1709629-06	Hg-CVAFS-T-7030	70			

Due Date: 10/20/2017

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ANALYSIS SEQUENCE

7J19011

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/18/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709629-07	Hg-CVAFS-T-7030	71			
1709629-08	Hg-CVAFS-T-7030	72			
1709629-09	Hg-CVAFS-T-7030	73			
1709629-10	Hg-CVAFS-T-7030	74			
1709629-11	Hg-CVAFS-T-7030	75			
1709629-12	Hg-CVAFS-T-7030	76			
1709629-13	Hg-CVAFS-T-7030	77			
1709629-14	Hg-CVAFS-T-7030	78			
1709629-15	Hg-CVAFS-T-7030	79			
7J19011-CCV6	QC	80	1705628		
7J19011-CCB6	QC	81			
1709629-16	Hg-CVAFS-T-7030	82			
1709629-17	Hg-CVAFS-T-7030	83			
1709629-18	Hg-CVAFS-T-7030	84			
F710290-DUP1	QC	85			
F710290-MS1	QC	86			
F710290-MSD1	QC	87			
F710290-MS2	QC	88			
F710290-MSD2	QC	89			
7J19011-CCV7	QC	90	1705628		
7J19011-CCB7	QC	91			

Don Moran 10/18/17
 Samples Loaded By Date

Don Moran 10/19/17
 Data Processed By Date

PREPARATION BENCH SHEET

F710289

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710289-BLK1	Blank	0.25	20					
F710289-BLK2	Blank	0.25	20					
F710289-BLK3	Blank	0.25	20					
F710289-BLK4	Blank	0.285	20					Pre-homogenization Blank for 1709627
F710289-BLK5	Blank	0.26	20					Post-homogenization Blank for 1709627
F710289-BLK6	Blank	0.281	20					Pre-homogenization Blank for 1709628
F710289-BLK7	Blank	0.288	20					Post-homogenization Blank for 1709628
F710289-BS1	LCS	0.25	20	1704421	20			
F710289-BS2	DORM4	0.1285	20	1705412	128.5			
F710289-BSD1	LCS Dup	0.25	20	1704421	20			
F710289-DUP1	Duplicate [1709627-19RE1]	0.271	20					
F710289-MS1	Matrix Spike [1709627-19RE1]	0.257	20	1705554	100			
F710289-MS2	Matrix Spike [1709628-01]	0.275	20	1705554	100			
F710289-MSD1	Matrix Spike Dup [1709627-19RE1]	0.261	20	1705554	100			
F710289-MSD2	Matrix Spike Dup [1709628-01]	0.272	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705927	70/30 Digestion Acid	02-Apr-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00
			1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

PREPARATION BENCH SHEET

F710289

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709627-19	FRB-01_17HC001_091317_BLM_19_WB	0.257	20	-	-	-		
1709627-19RE1	FRB-01_17HC001_091317_BLM_19_WB	0.257	20	-	-	-	Added 10/19/2017 by DM2	Added 10/19/2017 by DM2
1709627-20	FRB-01_17HC001_091317_BLM_20_WB	0.253	20	-	-	-		
1709627-20RE1	FRB-01_17HC001_091317_BLM_20_WB	0.253	20	-	-	-	Added 10/19/2017 by DM2	Added 10/19/2017 by DM2
1709628-01	ES-03_17HC001_091917_BLM_01_WB	0.269	20	QC	-	-	MS/MSD	
1709628-02	ES-03_17HC001_091917_BLM_02_WB	0.272	20	-	-	-		
1709628-03	ES-03_17HC001_091917_BLM_03_WB	0.252	20	-	-	-		
1709628-04	ES-03_17HC001_091917_BLM_04_WB	0.255	20	-	-	-		
1709628-05	ES-03_17HC001_091917_BLM_05_WB	0.257	20	-	-	-		
1709628-06	ES-03_17HC001_091917_BLM_06_WB	0.279	20	-	-	-		
1709628-07	ES-03_17HC001_091917_BLM_07_WB	0.281	20	-	-	-		
1709628-08	ES-03_17HC001_091917_BLM_08_WB	0.273	20	-	-	-		
1709628-09	ES-03_17HC001_091917_BLM_09_WB	0.282	20	-	-	-		
1709628-10	ES-03_17HC001_091917_BLM_10_WB	0.285	20	-	-	-		
1709628-11	ES-03_17HC001_091917_BLM_11_WB	0.288	20	-	-	-		
1709628-12	ES-03_17HC001_091917_BLM_12_WB	0.258	20	-	-	-		
1709628-13	ES-03_17HC001_091917_BLM_13_WB	0.275	20	-	-	-		
1709628-14	ES-03_17HC001_091917_BLM_14_WB	0.262	20	-	-	-		
1709628-16	ES-03_17HC001_091917_BLM_16_WB	0.267	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710289

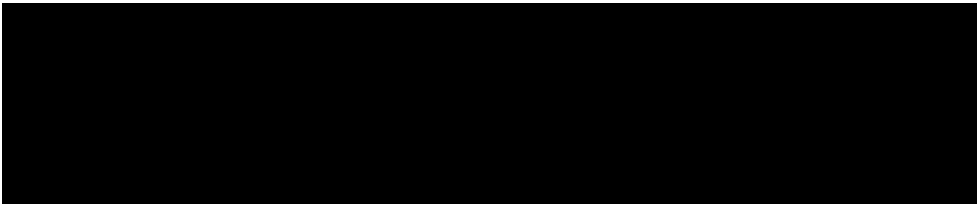
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709628-18	ES-03_17HC001_091917_BLM_18_WB	0.276	20	-	-	-		
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PREPARATION BENCH SHEET

F710290

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710290-BLK1	Blank	0.25	20					
F710290-BLK2	Blank	0.25	20					
F710290-BLK3	Blank	0.25	20					
F710290-BLK4	Blank	0.289	20					Pre-homogenization Blank for 1709629
F710290-BLK5	Blank	0.292	20					Post-homogenization Blank for 1709629
F710290-BS1	LCS	0.25	20	1704421	20			
F710290-BS2	DORM4	0.1267	20	1705412	126.7			
F710290-BSD1	LCS Dup	0.25	20	1704421	20			
F710290-DUP1	Duplicate [1709628-19]	0.283	20					
F710290-MS1	Matrix Spike [1709628-19]	0.263	20	1705554	100			
F710290-MS2	Matrix Spike [1709629-01]	0.264	20	1705554	100			
F710290-MSD1	Matrix Spike Dup [1709628-19]	0.278	20	1705554	100			
F710290-MSD2	Matrix Spike Dup [1709629-01]	0.276	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705927	70/30 Digestion Acid	02-Apr-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00
			1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

PREPARATION BENCH SHEET

F710290

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709628-19	ES-03_17HC001_091917_BLM_19_WB	0.269	20	-	-	-		
1709628-20	ES-03_17HC001_091917_BLM_20_WB	0.269	20	-	-	-		
1709629-01	ES-FP_17HC001_091917_BLM_01_WB	0.279	20	QC	-	-	MS/MSD	
1709629-02	ES-FP_17HC001_091917_BLM_02_WB	0.26	20	-	-	-		
1709629-03	ES-FP_17HC001_091917_BLM_03_WB	0.289	20	-	-	-		
1709629-04	ES-FP_17HC001_091917_BLM_04_WB	0.265	20	-	-	-		
1709629-05	ES-FP_17HC001_091917_BLM_05_WB	0.268	20	-	-	-		
1709629-06	ES-FP_17HC001_091917_BLM_06_WB	0.257	20	-	-	-		
1709629-07	ES-FP_17HC001_091917_BLM_07_WB	0.279	20	-	-	-		
1709629-08	ES-FP_17HC001_091917_BLM_08_WB	0.259	20	-	-	-		
1709629-09	ES-FP_17HC001_091917_BLM_09_WB	0.259	20	-	-	-		
1709629-10	ES-FP_17HC001_091917_BLM_10_WB	0.253	20	-	-	-		
1709629-11	ES-FP_17HC001_091917_BLM_11_WB	0.286	20	-	-	-		
1709629-12	ES-FP_17HC001_091917_BLM_12_WB	0.27	20	-	-	-		
1709629-13	ES-FP_17HC001_091917_BLM_13_WB	0.253	20	-	-	-		
1709629-14	ES-FP_17HC001_091917_BLM_14_WB	0.281	20	-	-	-		
1709629-15	ES-FP_17HC001_091917_BLM_15_WB	0.254	20	-	-	-		
1709629-16	ES-FP_17HC001_091917_BLM_16_WB	0.259	20	-	-	-		
1709629-17	ES-FP_17HC001_091917_BLM_17_WB	0.258	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710290

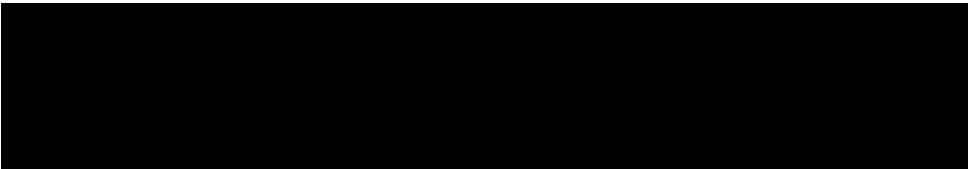
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709629-18	ES-FP_17HC001_091917_BLM_18_WB	0.273	20	-	-	-		
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PREPARATION BENCH SHEET

2600-2
10/18/17 DM

F710289

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710289-BLK1	Blank	0.25	20					20X
F710289-BLK2	Blank	0.25	20					20X
F710289-BLK3	Blank	0.25	20					20X
F710289-BLK4	Blank	0.285	20					Pre-homogenization Blank for 1709627 20X
F710289-BLK5	Blank	0.26	20					Post-homogenization Blank for 1709627 20X
F710289-BLK6	Blank	0.281	20					Pre-homogenization Blank for 1709628 20X
F710289-BLK7	Blank	0.288	20					Post-homogenization Blank for 1709628 20X
F710289-BS1	LCS	0.25	20	1704421	20			20X
F710289-BS2	DORM4	0.1285	20	1705412	128.5			400X
F710289-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710289-DUP1	Duplicate [1709627-19] RE1	0.271	20					20X
F710289-MS1	Matrix Spike [1709627-19] RE1	0.257	20	1705554	100			400X
F710289-MS2	Matrix Spike [1709628-01]	0.275	20	1705554	100			400X
F710289-MSD1	Matrix Spike Dup [1709627-19] RE1	0.261	20	1705554	100			400X
F710289-MSD2	Matrix Spike Dup [1709628-01]	0.272	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705927	70/30 Digestion Acid	02-Apr-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706079	5% BrCl	14-Mar-18 00:00

1705610
1705611
1705182
1706142

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600.2
10/18/17 DM

F710289

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments DM 10/18/17
1709627-19	FRB-01_17HC001_091317_BLM_19_WB	0.257	20	-	-	-		100X → 50X 20X
1709627-20	FRB-01_17HC001_091317_BLM_20_WB	0.253	20	-	-	-		100X → 50X 20X
1709628-01	ES-03_17HC001_091917_BLM_01_WB	0.269	20	QC	-	-	MS/MSD	100X
1709628-02	ES-03_17HC001_091917_BLM_02_WB	0.272	20	-	-	-		100X
1709628-03	ES-03_17HC001_091917_BLM_03_WB	0.252	20	-	-	-		100X
1709628-04	ES-03_17HC001_091917_BLM_04_WB	0.255	20	-	-	-		100X
1709628-05	ES-03_17HC001_091917_BLM_05_WB	0.257	20	-	-	-		100X
1709628-06	ES-03_17HC001_091917_BLM_06_WB	0.279	20	-	-	-		100X
1709628-07	ES-03_17HC001_091917_BLM_07_WB	0.281	20	-	-	-		100X
1709628-08	ES-03_17HC001_091917_BLM_08_WB	0.273	20	-	-	-		100X
1709628-09	ES-03_17HC001_091917_BLM_09_WB	0.282	20	-	-	-		100X
1709628-10	ES-03_17HC001_091917_BLM_10_WB	0.285	20	-	-	-		100X
1709628-11	ES-03_17HC001_091917_BLM_11_WB	0.288	20	-	-	-		100X
1709628-12	ES-03_17HC001_091917_BLM_12_WB	0.258	20	-	-	-		100X
1709628-13	ES-03_17HC001_091917_BLM_13_WB	0.275	20	-	-	-		100X
1709628-14	ES-03_17HC001_091917_BLM_14_WB	0.262	20	-	-	-		100X
1709628-15	ES-03_17HC001_091917_BLM_15_WB	0.25	20	-	-	-		—
1709628-16	ES-03_17HC001_091917_BLM_16_WB	0.267	20	-	-	-		100X
1709628-18	ES-03_17HC001_091917_BLM_18_WB	0.276	20	-	-	-		100X

PREPARATION BENCH SHEET

F710289

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Due Date: 10/20/2017

Technician: CWF Batch#: F710289 Date: 10/11/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6,19 (DORMU) Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 5:40 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C

Time out: 7:40 Actual Temp. (raw): 85.1 °C w/ CF: 85.1 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1706079) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: PC 10/11/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0207852 Calibration Date: 10/9/17

HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1705927 Dispenser #: 0202749 Calibrated? Yes No

Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes No

Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: A2

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710289 - Blk1	0.269	23	1709628 - 06	0.279	BS2 DORMU LIMS: 1705412 Balance: 19
2	F710289 - Blk2	0.259	24	1709628 - 07	0.281	
3	F710289 - Blk3	0.272	25	1709628 - 08	0.273	Comments
4	F710289 - Blk4	0.285	26	1709628 - 09	0.282	
5	F710289 - Blk5	0.260	27	1709628 - 10	0.285	BSV/BSDI spiked with 20µL of 1704421
6	F710289 - Blk6	0.281	28	1709628 - 11	0.288	
7	F710289 - Blk7	0.288	29	1709628 - 12	0.258	DUPI/MSI/MSDS1 source: 1709627 ^{CWF} 1709627 - 19
8	F710289 - BS1	0.279	30	1709628 - 13	0.275	
9	F710289 - BSD1	0.250	31	1709628 - 14	0.262	MS2/MSDS2 source: 1709628-01
10	F710289 - BS2	0.1285	32	1709628 - 16	0.267	
11	1709627 - 19	0.257	33	1709628 - 17	0.276	Blk 4 + 5 are Pre/Post blanks for 1709627
12	F710289 - ^{DUP1} 20 ^{CWF} 10/11/17	0.271	34	1709628 - 18	0.276	
13	F710289 - MS1	0.257	35	1709628 - 19	0.269	Blk 6 + 7 are Pre/Post blanks for 1709628
14	F710289 - MSD1	0.261	36	Already batched		
15	1709627 - 20	0.253	37			*No Sample 1709628-17, removed from batch.
16	1709628 - 01	0.269	38			
17	F710289 - MS2	0.275	39			CWF 10/11/17
18	F710289 - MSD2	0.272	40			
19	1709628 - 02	0.272	41			
20	1709628 - 03	0.252	42			
21	1709628 - 04	0.255	43			
22	1709628 - 05	0.297	44			

PREPARATION BENCH SHEET

2600.2
10/18/17 DM

F710290

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710290-BLK1	Blank	0.25	20					20X
F710290-BLK2	Blank	0.25	20					20X
F710290-BLK3	Blank	0.25	20					20X
F710290-BLK4	Blank	0.289	20					Pre-homogenization Blank for 1709629 20X
F710290-BLK5	Blank	0.292	20					Post-homogenization Blank for 1709629 20X
F710290-BS1	LCS	0.25	20	1704421	20			20X
F710290-BS2	DORM4	0.1267	20	1705412	126.7			400X
F710290-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710290-DUP1	Duplicate [1709628-19]	0.283	20					100X
F710290-MS1	Matrix Spike [1709628-19]	0.263	20	1705554	100			400X
F710290-MS2	Matrix Spike [1709629-01]	0.264	20	1705554	100			400X
F710290-MSD1	Matrix Spike Dup [1709628-19]	0.278	20	1705554	100			400X
F710290-MSD2	Matrix Spike Dup [1709629-01]	0.276	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705927	70/30 Digestion Acid	02-Apr-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706079	5% BrCl	14-Mar-18 00:00

1705610
1705611
1703182
1706142

PREPARATION BENCH SHEET

2600-2
10/18/17 DM

F710290

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709628-19	ES-03_17HC001_091917_BLM_19_WB	0.269	20	-	-	-		100x
1709628-20	ES-03_17HC001_091917_BLM_20_WB	0.269	20	-	-	-		100x
1709629-01	ES-FP_17HC001_091917_BLM_01_WB	0.279	20	QC	-	-	MS/MSD	100x
1709629-02	ES-FP_17HC001_091917_BLM_02_WB	0.26	20	-	-	-		100x
1709629-03	ES-FP_17HC001_091917_BLM_03_WB	0.289	20	-	-	-		100x
1709629-04	ES-FP_17HC001_091917_BLM_04_WB	0.265	20	-	-	-		100x
1709629-05	ES-FP_17HC001_091917_BLM_05_WB	0.268	20	-	-	-		100x
1709629-06	ES-FP_17HC001_091917_BLM_06_WB	0.257	20	-	-	-		100x
1709629-07	ES-FP_17HC001_091917_BLM_07_WB	0.279	20	-	-	-		100x
1709629-08	ES-FP_17HC001_091917_BLM_08_WB	0.259	20	-	-	-		100x
1709629-09	ES-FP_17HC001_091917_BLM_09_WB	0.259	20	-	-	-		100x
1709629-10	ES-FP_17HC001_091917_BLM_10_WB	0.253	20	-	-	-		100x
1709629-11	ES-FP_17HC001_091917_BLM_11_WB	0.286	20	-	-	-		100x
1709629-12	ES-FP_17HC001_091917_BLM_12_WB	0.27	20	-	-	-		100x
1709629-13	ES-FP_17HC001_091917_BLM_13_WB	0.253	20	-	-	-		100x
1709629-14	ES-FP_17HC001_091917_BLM_14_WB	0.281	20	-	-	-		100x
1709629-15	ES-FP_17HC001_091917_BLM_15_WB	0.254	20	-	-	-		100x
1709629-16	ES-FP_17HC001_091917_BLM_16_WB	0.259	20	-	-	-		100x
1709629-17	ES-FP_17HC001_091917_BLM_17_WB	0.258	20	-	-	-		100x

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2
10/18/17 DM

F710290

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709629-18	ES-FP_17HC001_091917_BLM_18_WB	0.273	20	-	-	-		100X
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Technician: WF Batch#: F710290 Date: 10/11/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19 (DORM4) Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 15:40 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C

Time out: 17:40 Actual Temp. (raw): 85.1 °C w/ CF: 85.1 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1706079) Spike vol.: 100 ^{µs/msd} µL (LIMS ID: 1705584)
 Spike Witness: A 10/11/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0007852 Calibration Date: 10/9/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705927 Dispenser #: 0262749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: A2

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710290 - BLU1	0.255	23	1709629 - 08	0.259	BS2 = DORM4
2	F710290 - BLU2	0.265	24	1709629 - 09	0.259	LIMS: 1705412
3	F710290 - BLU3	0.265	25	1709629 - 10	0.253	Balance: 19
4	F710290 - BLU4	0.289	26	1709629 - 11	0.286	Comments
5	F710290 - BLU5	0.292	27	1709629 - 12	0.270	
6	F710290 - BS1	0.280	28	1709629 - 13	0.253	BS1/BSD1 spiked with 20 µL with of ^{WF} _{10/11/17}
7	F710290 - BSD1	0.251	29	1709629 - 14	0.281	1704424
8	F710290 - BS2	0.1267	30	1709629 - 15	0.254	^{WF} _{10/11/17} m52/ms1/msd1 source; 1709628-19
9	1709628 - 19	0.269	31	1709629 - 16	0.259	^{WF} _{10/11/17}
10	F710290 - DUP1	0.283	32	1709629 - 17	0.258	m52/msd2
11	F710290 - M51	0.263	33	1709629 - 18	0.273	source: 1709628 ^{WF} _{10/11/17}
12	F710290 - MSD1	0.278	34			1709629-01
13	1709628 - 20	0.269	35			
14	1709629 - 01	0.279	36			
15	F710290 - M52	0.264	37			
16	F710290 - MSD2	0.276	38			
17	1709629 - 02	0.260	39			
18	1709629 - 03	0.289	40			
19	1709629 - 04	0.265	41			
20	1709629 - 05	0.268	42			
21	1709629 - 06	0.297	43			
22	1709629 - 07	0.279	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7J19011
Reviewer:	0 <i>[Signature]</i> 10/19/17	Dataset ID(s):	THG26002-171018-1
Date:	10/19/2017	WO (s) #:	1709627, 1709628, 1709629
Batch #(s):	F710289, F710290		0

Analyst Initials DM

Reviewer Initials BC

5b. Has the B/C section data been uploaded?

YES NO N/A

QA/QC Data Checked

6. RSD CF (≤ 15%)

PASS FAIL

Comments: _____

7. The calibration curve included a minimum of 5 Standards

YES NO

Comments: _____

8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)

PASS FAIL

9. ICV and CCV % Recoveries EPA 1631E (77-123%)

PASS FAIL

Comments: _____

10. Do all calibration points pass acceptance criteria?

YES NO

Comments: _____

11. Are qualifiers consistent with the data review flowcharts?

YES NO N/A

Comments: _____

12. Explain any items on the failed data report from Element

Comments: **NONE**

13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list)

PASS FAIL

(a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:

(b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?

YES NO

(c) Was a BrCl Blank analyzed for each preservation level?

YES NO N/A

(d) Are Preparation Blanks summarized on QC page?

YES NO

14. Filtration Blank Prepared (if yes, use FB qualifier)

YES NO

(a) Filtration Blank prep date same as associated samples' prep date

YES NO N/A

(b) Filtration Blank absolute value < PQL or <2.2xMDL for WI

YES NO N/A

15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?

PASS FAIL

Comments: _____

16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?

PASS FAIL

Comments: _____

17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)

YES NO N/A

18. Is the correct 'Source' designated for MD/MS/MSD?

YES NO

19. For digested preps: was there a spike witness signature & date on the prep bench sheet?

YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7J19011
Reviewer:	0 <i>B/C</i> <i>10/19/17</i>	Dataset ID(s):	THG26002-171018-1
Date:	10/19/2017	WO (s) #:	1709627, 1709628, 1709629
Batch #(s):	F710289, F710290		0

Analyst Initials DM

Reviewer Initials B/C

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
- Files located at:** \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs
- | | | | | |
|---|------------|----------------------------------|---|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ | 11/23/2016 | IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ | 5/20/2016 | Current SOP revision read? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ | 7/28/2017 | LOD within last 3 months? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ | 7/28/2017 | LOQ within last 3 months? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.



Frontier Global Sciences

THg26002-171017-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 18, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7J18019, 7J18020, 7J18021

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	97.99 units	195.98	89.05 units	178.11	99.7 %Rec
SEQ-CAL2	1	1.00 ng/L	195.16 units	195.16	186.22 units	186.22	104.2 %Rec
SEQ-CAL3	1	5.00 ng/L	910.96 units	182.19	902.02 units	180.40	101.0 %Rec
SEQ-CAL4	1	20.00 ng/L	3552.62 units	177.63	3543.68 units	177.18	99.2 %Rec
SEQ-CAL5	1	40.00 ng/L	6865.94 units	171.65	6857.00 units	171.43	95.9 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
178.67	+/- 5.36	3.0% RSD	184.52

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	8.94 units	±1.62	0.05 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	6	-0.002 ng/L	±0.008
BLK	2	3	1.747 ng/L	±0.575
BLK	3	3	2.840 ng/L	±0.886
BLK	4	2	7.802 ng/L	±3.016
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: p 10/19/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	CAL	SEQ-IBL1	1	10/18/2017 8:48:34	87447-1.RAW	8:48:34 AM	10.80			1.9	0.010	0.010	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	10/18/2017 8:52:43	87448-1.RAW	8:52:43 AM	8.09			-0.8	-0.005	-0.005	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	10/18/2017 8:56:51	87449-1.RAW	8:56:51 AM	7.92			-1.0	-0.006	-0.006	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	10/18/2017 9:01:00	87450-1.RAW	9:01:00 AM	97.99			89.1	0.498	0.498	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	10/18/2017 9:05:08	87451-1.RAW	9:05:08 AM	195.16			186.2	1.042	1.042	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	10/18/2017 9:09:17	87452-1.RAW	9:09:17 AM	910.96			902.0	5.049	5.049	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	10/18/2017 9:13:25	87453-1.RAW	9:13:25 AM	3552.62			3543.7	19.834	19.834	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	10/18/2017 9:17:34	87454-1.RAW	9:17:34 AM	6865.94			6857.0	38.378	38.378	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	10/18/2017 9:21:42	87455-1.RAW	9:21:42 AM	905.88			896.9	5.020	5.020	ng/L	
Hg2600-3	BC	SAM	WS		10/18/2017 9:39:08	87456-1.RAW	9:39:08 AM	46.72		x	37.8	0.211	0.000	ng/L	
Hg2600-3	BC	BLK	F710376-BLK1	1	10/18/2017 9:43:17	87457-1.RAW	9:43:17 AM	8.83	1	x	-0.1	-0.001	-0.001	ng/L	
Hg2600-3	BC	BLK	F710376-BLK2	1	10/18/2017 9:47:25	87458-1.RAW	9:47:25 AM	8.79	1	x	-0.1	-0.001	-0.001	ng/L	
Hg2600-3	BC	BLK	F710376-BLK3	1	10/18/2017 9:51:34	87459-1.RAW	9:51:34 AM	10.89	1	x	2.0	0.011	0.011	ng/L	
Hg2600-3	BC	BLK	F710376-BLK4	1	10/18/2017 9:55:42	87460-1.RAW	9:55:42 AM	6.34	1	x	-2.6	-0.015	-0.015	ng/L	
Hg2600-3	BC	BLK	F710376-BLK5	1	10/18/2017 9:59:51	87461-1.RAW	9:59:51 AM	8.60	1	x	-0.3	-0.002	-0.002	ng/L	
Hg2600-3	BC	BLK	F710376-BLK6	1	10/18/2017 10:03:59	87462-1.RAW	10:03:59 AM	8.32	1	x	-0.6	-0.003	-0.003	ng/L	
Hg2600-3	BC	SAM	1710146-01	1	10/18/2017 10:08:08	87463-1.RAW	10:08:08 AM	93.25	1	x	84.3	0.472	0.472	ng/L	
Hg2600-3	BC	SAM	1710146-02	1	10/18/2017 10:12:16	87464-1.RAW	10:12:16 AM	16.05	1	x	7.1	0.040	0.040	ng/L	
Hg2600-3	BC	SAM	1710329-01	1	10/18/2017 10:16:25	87465-1.RAW	10:16:25 AM	332.89	1	x	323.9	1.813	1.813	ng/L	
Hg2600-3	BC	SAM	1710329-02	1	10/18/2017 10:20:33	87466-1.RAW	10:20:33 AM	13.26	1	x	4.3	0.024	0.024	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	10/18/2017 10:24:41	87467-1.RAW	10:24:41 AM	883.51			874.6	4.895	4.895	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	10/18/2017 10:28:50	87468-1.RAW	10:28:50 AM	15.31			6.4	0.036	0.036	ng/L	
Hg2600-3	BC	SAM	F710376-BS1	1	10/18/2017 10:32:58	87469-1.RAW	10:32:58 AM	2742.19	1	x	2733.3	15.298	15.298	ng/L	
Hg2600-3	BC	SAM	F710376-BSD1	1	10/18/2017 10:37:07	87470-1.RAW	10:37:07 AM	2897.31	1	x	2888.4	16.166	16.166	ng/L	
Hg2600-3	BC	SAM	F710376-DUP1	1	10/18/2017 10:41:15	87471-1.RAW	10:41:15 AM	342.88	1	x	333.9	1.869	1.869	ng/L	
Hg2600-3	BC	SAM	F710376-MS1	1	10/18/2017 10:45:24	87472-1.RAW	10:45:24 AM	1204.78	1	x	1195.8	6.693	6.693	ng/L	
Hg2600-3	BC	SAM	F710376-MSD1	1	10/18/2017 10:49:32	87473-1.RAW	10:49:32 AM	1218.64	1	x	1209.7	6.771	6.771	ng/L	
Hg2600-3	BC	SAM	ws	20	10/18/2017 10:53:41	87474-1.RAW	10:53:41 AM	936.17			927.2	5.190	103.794	ng/L	
Hg2600-3	BC	SAM	ws	20	10/18/2017 10:57:49	87475-1.RAW	10:57:49 AM	3494.33		x	3485.4	19.508	390.153	ng/L	
Hg2600-3	BC	BLK	F710215-BLK3	20	10/18/2017 11:03:44	87476-2.RAW	11:03:44 AM	30.01	2		21.1	0.118	2.358	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK4	20	10/18/2017 11:07:53	87477-1.RAW	11:07:53 AM	27.90	2		19.0	0.019	0.375	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK5	20	10/18/2017 11:12:01	87478-1.RAW	11:12:01 AM	20.34	2		11.4	-0.024	-0.470	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	10/18/2017 11:16:10	87479-1.RAW	11:16:10 AM	906.16			897.2	5.022	5.022	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	10/18/2017 11:20:18	87480-1.RAW	11:20:18 AM	18.09			9.1	0.051	0.051	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK6	20	10/18/2017 11:24:27	87481-1.RAW	11:24:27 AM	18.25	2		9.3	-0.035	-0.704	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK7	20	10/18/2017 11:28:35	87482-1.RAW	11:28:35 AM	15.07	2		6.1	-0.053	-1.060	ng/L	
Hg2600-3	BC	BLK	F710215-BLK1	20	10/18/2017 11:32:43	87483-1.RAW	11:32:43 AM	23.82	2		14.9	0.083	1.666	ng/L	
Hg2600-3	BC	BLK	F710215-BLK2	20	10/18/2017 11:36:52	87484-1.RAW	11:36:52 AM	19.81	2		10.9	0.061	1.217	ng/L	
Hg2600-3	BC	SAM	F710215-BS1	20	10/18/2017 11:41:00	87485-1.RAW	11:41:00 AM	900.71	2		891.8	4.904	98.078	ng/L	
Hg2600-3	BC	SAM	F710215-BSD1	20	10/18/2017 11:45:09	87486-1.RAW	11:45:09 AM	949.16	2		940.2	5.175	103.501	ng/L	
Hg2600-3	BC	SAM	F710215-BS2	400	10/18/2017 11:49:17	87487-1.RAW	11:49:17 AM	971.90	2		963.0	5.385	2154.121	ng/L	
Hg2600-3	BC	SAM	1709619-06	100	10/18/2017 11:53:26	87488-1.RAW	11:53:26 AM	1926.50	2		1917.6	10.715	1071.505	ng/L	
Hg2600-3	BC	SAM	1709619-07	100	10/18/2017 11:57:34	87489-1.RAW	11:57:34 AM	1633.34	2		1624.4	9.074	907.427	ng/L	
Hg2600-3	BC	SAM	1709619-08	100	10/18/2017 12:01:43	87490-1.RAW	12:01:43 PM	1835.83	2		1826.9	10.208	1020.759	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	10/18/2017 12:05:51	87491-1.RAW	12:05:51 PM	878.64			869.7	4.868	4.868	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	10/18/2017 12:09:59	87492-1.RAW	12:09:59 PM	21.49			12.6	0.070	0.070	ng/L	
Hg2600-3	BC	SAM	1709619-09	100	10/18/2017 12:14:08	87493-1.RAW	12:14:08 PM	1680.62	2		1671.7	9.339	933.891	ng/L	
Hg2600-3	BC	SAM	1709619-10	100	10/18/2017 12:18:16	87494-1.RAW	12:18:16 PM	1737.63	2		1728.7	9.658	965.797	ng/L	
Hg2600-3	BC	SAM	1709619-11	100	10/18/2017 12:22:25	87495-1.RAW	12:22:25 PM	1815.57	2		1806.6	10.094	1009.418	ng/L	
Hg2600-3	BC	SAM	1709619-12	100	10/18/2017 12:26:33	87496-1.RAW	12:26:33 PM	1881.97	2		1873.0	10.466	1046.582	ng/L	
Hg2600-3	BC	SAM	1709619-13	100	10/18/2017 12:30:42	87497-1.RAW	12:30:42 PM	1852.77	2		1843.8	10.302	1030.241	ng/L	
Hg2600-3	BC	SAM	1709619-14	100	10/18/2017 12:34:50	87498-1.RAW	12:34:50 PM	1987.76	2		1978.8	11.058	1105.791	ng/L	
Hg2600-3	BC	SAM	1709619-15	100	10/18/2017 12:38:59	87499-1.RAW	12:38:59 PM	1820.77	2		1811.8	10.123	1012.331	ng/L	
Hg2600-3	BC	SAM	1709619-16	100	10/18/2017 12:43:07	87500-1.RAW	12:43:07 PM	1534.09	2		1525.2	8.519	851.878	ng/L	
Hg2600-3	BC	SAM	1709619-17	100	10/18/2017 12:47:15	87501-1.RAW	12:47:15 PM	1585.61	2		1576.7	8.807	880.711	ng/L	
Hg2600-3	BC	SAM	1709619-18	100	10/18/2017 12:51:24	87502-1.RAW	12:51:24 PM	1692.12	2		1683.2	9.403	940.325	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	10/18/2017 12:55:32	87503-1.RAW	12:55:32 PM	937.83			928.9	5.199	5.199	ng/L	

Instrument		Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Analyst	Type	LabNumber													
Hg2600-3	BC	CAL	SEQ-CCB4	1	10/18/2017 12:59:41	87504-1.RAW	12:59:41 PM	18.47			9.5	0.053	0.053	ng/L	
Hg2600-3	BC	SAM	1709619-19	100	10/18/2017 13:03:49	87505-1.RAW	1:03:49 PM	1754.58	2		1745.6	9.753	975.282	ng/L	
Hg2600-3	BC	SAM	1709619-20	100	10/18/2017 13:07:58	87506-1.RAW	1:07:58 PM	1477.18	2		1468.2	8.200	820.021	ng/L	
Hg2600-3	BC	SAM	1709620-01	100	10/18/2017 13:12:06	87507-1.RAW	1:12:06 PM	1178.13	2		1169.2	6.526	652.647	ng/L	
Hg2600-3	BC	SAM	1709620-02	100	10/18/2017 13:16:15	87508-1.RAW	1:16:15 PM	3271.75	2		3262.8	18.244	1824.440	ng/L	
Hg2600-3	BC	SAM	1709620-03	100	10/18/2017 13:20:23	87509-1.RAW	1:20:23 PM	4188.28	2		4179.3	23.374	2337.414	ng/L	
Hg2600-3	BC	SAM	1709620-04	100	10/18/2017 13:24:31	87510-1.RAW	1:24:31 PM	2545.18	2		2536.2	14.178	1417.780	ng/L	
Hg2600-3	BC	SAM	1709620-07	100	10/18/2017 13:28:40	87511-1.RAW	1:28:40 PM	2954.67	2		2945.7	16.470	1646.972	ng/L	
Hg2600-3	BC	SAM	F710215-DUP1	100	10/18/2017 13:32:48	87512-1.RAW	1:32:48 PM	1789.30	2		1780.4	9.947	994.714	ng/L	
Hg2600-3	BC	SAM	F710215-MS1	400	10/18/2017 13:36:57	87513-1.RAW	1:36:57 PM	2529.76	2		2520.8	14.105	5641.839	ng/L	
Hg2600-3	BC	SAM	F710215-MSD1	400	10/18/2017 13:41:05	87514-1.RAW	1:41:05 PM	2536.27247	2		2527.3	14.141	5656.417	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	10/18/2017 13:45:14	87515-1.RAW	1:45:14 PM	942.94			934.0	5.228	5.228	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	10/18/2017 13:49:22	87516-1.RAW	1:49:22 PM	34.80			25.9	0.145	0.145	ng/L	
Hg2600-3	BC	SAM	F710215-MS2	400	10/18/2017 13:53:30	87517-1.RAW	1:53:30 PM	2539.67	2		2530.7	14.160	5664.025	ng/L	
Hg2600-3	BC	SAM	F710215-MSD2	400	10/18/2017 13:57:39	87518-1.RAW	1:57:39 PM	2706.28	2		2697.3	15.093	6037.038	ng/L	
Hg2600-3	BC	BLK	F710291-BLK1	20	10/18/2017 14:01:47	87519-1.RAW	2:01:47 PM	43.35	3		34.4	0.193	3.852	ng/L	
Hg2600-3	BC	BLK	F710291-BLK2	20	10/18/2017 14:05:56	87520-1.RAW	2:05:56 PM	28.60	3		19.7	0.110	2.200	ng/L	
Hg2600-3	BC	BLK	F710291-BLK3	20	10/18/2017 14:10:04	87521-1.RAW	2:10:04 PM	30.99	3		22.1	0.123	2.468	ng/L	
Hg2600-3	BC	SAM	*F710291-BLK4	20	10/18/2017 14:14:13	87522-1.RAW	2:14:13 PM	24.55	3		15.6	-0.055	-1.092	ng/L	
Hg2600-3	BC	SAM	*F710291-BLK5	20	10/18/2017 14:18:21	87523-1.RAW	2:18:21 PM	24.83	3		15.9	-0.053	-1.061	ng/L	
Hg2600-3	BC	SAM	WS	100	10/18/2017 14:22:30	87524-1.RAW	2:22:30 PM	875.97	x		867.0	4.853	485.276	ng/L	
Hg2600-3	BC	SAM	F710291-BS1	20	10/18/2017 14:26:38	87525-1.RAW	2:26:38 PM	966.14	3		957.2	5.215	104.309	ng/L	
Hg2600-3	BC	SAM	F710291-BSD1	20	10/18/2017 14:30:46	87526-1.RAW	2:30:46 PM	989.96	3		981.0	5.349	106.975	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	10/18/2017 14:34:55	87527-1.RAW	2:34:55 PM	895.36			886.4	4.961	4.961	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	10/18/2017 14:39:03	87528-1.RAW	2:39:03 PM	24.04			15.1	0.085	0.085	ng/L	
Hg2600-3	BC	SAM	1709629-19	100	10/18/2017 14:44:22	87529-2.RAW	2:44:22 PM	1809.16	3		1800.2	10.047	1004.737	ng/L	
Hg2600-3	BC	SAM	F710291-BS2	400	10/18/2017 14:48:30	87530-1.RAW	2:48:30 PM	1084.89	3		1076.0	6.015	2405.990	ng/L	
Hg2600-3	BC	SAM	1709629-20	100	10/18/2017 14:52:39	87531-1.RAW	2:52:39 PM	2421.15	3		2412.2	13.473	1347.269	ng/L	
Hg2600-3	BC	SAM	1709630-01	100	10/18/2017 14:56:47	87532-1.RAW	2:56:47 PM	2094.50	3		2085.6	11.644	1164.444	ng/L	
Hg2600-3	BC	SAM	1709630-02	100	10/18/2017 15:00:56	87533-1.RAW	3:00:56 PM	2169.65	3		2160.7	12.065	1206.504	ng/L	
Hg2600-3	BC	SAM	1709630-03	100	10/18/2017 15:05:04	87534-1.RAW	3:05:04 PM	1177.18	3		1168.2	6.510	651.020	ng/L	
Hg2600-3	BC	SAM	1709630-04	100	10/18/2017 15:09:12	87535-1.RAW	3:09:12 PM	3392.02	3		3383.1	18.907	1890.658	ng/L	
Hg2600-3	BC	SAM	1709630-05	100	10/18/2017 15:13:21	87536-1.RAW	3:13:21 PM	1792.48	3		1783.5	9.954	995.404	ng/L	
Hg2600-3	BC	SAM	1709630-06	100	10/18/2017 15:17:29	87537-1.RAW	3:17:29 PM	2507.07	3		2498.1	13.954	1395.358	ng/L	
Hg2600-3	BC	SAM	1709630-07	100	10/18/2017 15:21:38	87538-1.RAW	3:21:38 PM	2625.83	3		2616.9	14.618	1461.828	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	10/18/2017 15:25:46	87539-1.RAW	3:25:46 PM	921.29			912.4	5.106	5.106	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	10/18/2017 15:29:55	87540-1.RAW	3:29:55 PM	30.69			21.7	0.122	0.122	ng/L	
Hg2600-3	BC	SAM	1709630-08	100	10/18/2017 15:34:03	87541-1.RAW	3:34:03 PM	3035.66	3		3026.7	16.912	1691.207	ng/L	
Hg2600-3	BC	SAM	1709630-09	100	10/18/2017 15:38:12	87542-1.RAW	3:38:12 PM	2627.13	3		2618.2	14.626	1462.551	ng/L	
Hg2600-3	BC	SAM	1709630-10	100	10/18/2017 15:42:20	87543-1.RAW	3:42:20 PM	1511.24	3		1502.3	8.380	837.996	ng/L	
Hg2600-3	BC	SAM	1709630-11	100	10/18/2017 15:46:28	87544-1.RAW	3:46:28 PM	1954.56	3		1945.6	10.861	1086.118	ng/L	
Hg2600-3	BC	SAM	1709630-12	100	10/18/2017 15:50:36	87545-1.RAW	3:50:36 PM	1382.72	3		1373.8	7.661	766.064	ng/L	
Hg2600-3	BC	SAM	1709630-13	100	10/18/2017 15:54:44	87546-1.RAW	3:54:44 PM	2213.58	3		2204.6	12.311	1231.093	ng/L	
Hg2600-3	BC	SAM	1709630-14	100	10/18/2017 15:58:52	87547-1.RAW	3:58:52 PM	2114.21	3		2105.3	11.755	1175.471	ng/L	
Hg2600-3	BC	SAM	1709630-15	100	10/18/2017 16:03:01	87548-1.RAW	4:03:01 PM	2911.77	3		2902.8	16.219	1621.866	ng/L	
Hg2600-3	BC	SAM	1709630-16	100	10/18/2017 16:07:09	87549-1.RAW	4:07:09 PM	1897.84	3		1888.9	10.544	1054.373	ng/L	
Hg2600-3	BC	SAM	1709630-17	100	10/18/2017 16:11:17	87550-1.RAW	4:11:17 PM	2532.17	3		2523.2	14.094	1409.406	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	10/18/2017 16:15:26	87551-1.RAW	4:15:26 PM	925.45			916.5	5.130	5.130	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8	1	10/18/2017 16:19:34	87552-1.RAW	4:19:34 PM	36.62			27.7	0.155	0.155	ng/L	
Hg2600-3	BC	SAM	1709630-18	100	10/18/2017 16:23:43	87553-1.RAW	4:23:43 PM	2282.15	3		2273.2	12.695	1269.470	ng/L	
Hg2600-3	BC	SAM	F710291-DUP1	100	10/18/2017 16:27:51	87554-1.RAW	4:27:51 PM	1856.10	3		1847.2	10.310	1031.010	ng/L	
Hg2600-3	BC	SAM	F710291-MS1	400	10/18/2017 16:31:59	87555-1.RAW	4:31:59 PM	2790.65	3		2781.7	15.562	6224.819	ng/L	
Hg2600-3	BC	SAM	F710291-MSD1	400	10/18/2017 16:36:08	87556-1.RAW	4:36:08 PM	2472.94	3		2464.0	13.784	5513.544	ng/L	
Hg2600-3	BC	SAM	F710291-MS2	400	10/18/2017 16:40:16	87557-1.RAW	4:40:16 PM	2747.46	3		2738.5	15.320	6128.137	ng/L	
Hg2600-3	BC	SAM	F710291-MSD2	400	10/18/2017 16:44:25	87558-1.RAW	4:44:25 PM	2740.02	3		2731.1	15.279	6111.467	ng/L	
Hg2600-3	BC	BLK	F710351-BLK1	50	10/18/2017 16:48:33	87559-1.RAW	4:48:33 PM	44.44	4		35.5	0.199	9.935	ng/L	
Hg2600-3	BC	BLK	F710351-BLK2	50	10/18/2017 16:52:41	87560-1.RAW	4:52:41 PM	29.20	4		20.3	0.113	5.670	ng/L	
Hg2600-3	BC	SAM	F710351-BS1	400	10/18/2017 16:56:50	87561-1.RAW	4:56:50 PM	1320.63	4		1311.7	7.322	2928.797	ng/L	
Hg2600-3	BC	SAM	F710351-BSD1	400	10/18/2017 17:00:58	87562-1.RAW	5:00:58 PM	1098.62	4		1089.7	6.079	2431.770	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV9	1	10/18/2017 17:05:07	87563-1.RAW	5:05:07 PM	918.40			909.5	5.090	5.090	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB9	1	10/18/2017 17:09:15	87564-1.RAW	5:09:15 PM	33.31			24.4	0.136	0.136	ng/L	
Hg2600-3	BC	SAM	1710455-01	50	10/18/2017 17:13:24	87565-1.RAW	5:13:24 PM	25.53	4		16.6	-0.063	-3.159	ng/L	
Hg2600-3	BC	SAM	1710458-01	50	10/18/2017 17:17:32	87566-1.RAW	5:17:32 PM	23.05	4		14.1	-0.077	-3.854	ng/L	
Hg2600-3	BC	SAM	F710351-DUP1	50	10/18/2017 17:21:40	87567-1.RAW	5:21:40 PM	16.89	4		8.0	-0.112	-5.577	ng/L	
Hg2600-3	BC	SAM	F710351-MS1	400	10/18/2017 17:25:49	87568-1.RAW	5:25:49 PM	1296.98	4		1288.0	7.190	2875.856	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	SAM	F710351-MSD1 ✓	400	10/18/2017 17:29:57	87569-1.RAW	5:29:57 PM	1232.58 ✓	4		1223.6	6.829	2731.670	ng/L	
Hg2600-3	BC	CAL	SEQ-CCVA ✓	1	10/18/2017 17:34:06	87570-1.RAW	5:34:06 PM	918.05 ✓			909.1	5.088	5.088	ng/L	
Hg2600-3	BC	CAL	SEQ-CCBA ✓	1	10/18/2017 17:38:14	87571-1.RAW	5:38:14 PM	28.53 ✓			19.6	0.110	0.110	ng/L	

TotalMercury
EPA1631

Operat: BC
Worksh THg260
Method ##### R:
Descrip THg26002-171017-1

BlankS: 8.9373
CalibFa 178.67
R: 0.9999 R²: 0.9997

Calib Eqn: Conc = (Area-8.937
Status: QC Warnings:11/QC
R²: 0.9997

Conc = (Area-8.937
Run Date: #####
Run Time: 14:40:13

Blank SD: 1.619207196
Blank RSD%: 18.11738586
CF SD: 5.361978241
CF RSD%: 3.001081205

Sample/ID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean				0.00	3.37					87442-1.RAW	8:29:09	601.91	Clean	OK	1	
clean				0.00	0.02					87443-1.RAW	8:32:01	4.33	Clean	OK	1	
ws				8.94	0.00					87444-1.RAW	8:36:09	9.38	Sample	OK	1	
ws				8.94	0.00					87445-1.RAW	8:40:17	6.19	Sample	OK	1	
ws				8.94	0.00					87446-1.RAW	8:44:26	6.02	Sample	OK	1	
SEQ-IBL1	A1		1	0.00	0.06					87447-1.RAW	8:48:34	10.80	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.05					87448-1.RAW	8:52:43	8.09	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.04					87449-1.RAW	8:56:51	7.92	Sample	OK	1	
SEQ-CAL1	A4		1	8.94	0.50			99.69		87450-1.RAW	9:01:00	97.99	Sample	OK	1	
SEQ-CAL2	A5		1	8.94	1.04			104.23		87451-1.RAW	9:05:08	195.16	Sample	OK	1	
SEQ-CAL3	A6		1	8.94	5.05			100.97		87452-1.RAW	9:09:17	910.96	Sample	OK	1	
SEQ-CAL4	A7		1	8.94	19.83			99.17		87453-1.RAW	9:13:25	3552.62	Sample	OK	1	
SEQ-CAL5	A8		1	8.94	38.38			95.95		87454-1.RAW	9:17:34	6865.94	Sample	OK	1	
SEQ-ICV1	A9		1	8.94	5.02			100.40		87455-1.RAW	9:21:42	905.88	Sample	OK	1	
WS				8.94	0.21					87456-1.RAW	9:39:08	46.72	Sample	OK	1	
F710376-BLK1	A10		1	8.94	0.00					87457-1.RAW	9:43:17	8.83	Sample	OK	1	
F710376-BLK2	A11		1	8.94	0.00					87458-1.RAW	9:47:25	8.79	Sample	OK	1	
F710376-BLK3	A12		1	8.94	0.01					87459-1.RAW	9:51:34	10.89	Sample	OK	1	
F710376-BLK4	A13		1	8.94	0.00					87460-1.RAW	9:55:42	6.34	Sample	OK	1	
F710376-BLK5	A14		1	8.94	0.00					87461-1.RAW	9:59:51	8.60	Sample	OK	1	
F710376-BLK6	A15		1	8.94	0.00					87462-1.RAW	10:03:59	8.32	Sample	OK	1	
1710146-01	A16		1	8.94	0.47					87463-1.RAW	10:08:08	93.25	Sample	OK	1	
1710146-02	A17		1	8.94	0.04					87464-1.RAW	10:12:16	16.05	Sample	OK	1	
1710329-01	A18		1	8.94	1.81					87465-1.RAW	10:16:25	332.89	Sample	OK	1	
1710329-02	A19		1	8.94	0.02					87466-1.RAW	10:20:33	13.26	Sample	OK	1	
SEQ-CCV1	A20		1	8.94	4.89			97.90		87467-1.RAW	10:24:41	883.51	Sample	OK	1	
SEQ-CCB1	A21		1	8.94	0.04			0.00		87468-1.RAW	10:28:50	15.31	Sample	OK	1	
F710376-BS1	B1		1	8.94	15.30					87469-1.RAW	10:32:58	2742.19	Sample	OK	1	
F710376-BSD1	B2		1	8.94	16.17					87470-1.RAW	10:37:07	2897.31	Sample	OK	1	
F710376-DUP1	B3		1	8.94	1.87					87471-1.RAW	10:41:15	342.88	Sample	OK	1	
F710376-MS1	B4		1	8.94	6.69			233.28		87472-1.RAW	10:45:24	1204.78	Sample	OK	1	
F710376-MSD1	B5		1	8.94	6.77					87473-1.RAW	10:49:32	1218.64	Sample	OK	1	
ws	A6		20	8.94	103.79					87474-1.RAW	10:53:41	936.17	Sample	OK	1	WRONG LOCATION
ws	A7		20	8.94	390.15					87475-1.RAW	10:57:49	3494.33	Sample	OK	1	WRONG LOCATION
F710215-BLK3	B8		20	8.94	2.36					87476-2.RAW	11:03:44	30.01	Sample	OK	1	
*F710215-BLK4	B9		20	8.94	2.12					87477-1.RAW	11:07:53	27.90	Sample	OK	1	
*F710215-BLK5	B10		20	8.94	1.28					87478-1.RAW	11:12:01	20.34	Sample	OK	1	
SEQ-CCV2	B11		1	8.94	5.02			100.43		87479-1.RAW	11:16:10	906.16	Sample	OK	1	
SEQ-CCB2	B12		1	8.94	0.05			0.00		87480-1.RAW	11:20:18	18.09	Sample	OK	1	
*F710215-BLK6	B13		20	8.94	1.04					87481-1.RAW	11:24:27	18.25	Sample	OK	1	
*F710215-BLK7	B14		20	8.94	0.69					87482-1.RAW	11:28:35	15.07	Sample	OK	1	
F710215-BLK1	B15		20	8.94	1.67					87483-1.RAW	11:32:43	23.82	Sample	OK	1	
F710215-BLK2	B16		20	8.94	1.22					87484-1.RAW	11:36:52	19.81	Sample	OK	1	
F710215-BS1	B17		20	8.94	99.82					87485-1.RAW	11:41:00	900.71	Sample	OK	1	
F710215-BSD1	B18		20	8.94	105.25					87486-1.RAW	11:45:09	949.16	Sample	OK	1	
F710215-BS2	B19		400	8.94	2155.87					87487-1.RAW	11:49:17	971.90	Sample	OK	1	
1709619-06	B20		100	8.94	1073.25					87488-1.RAW	11:53:26	1926.50	Sample	OK	1	
1709619-07	B21		100	8.94	909.17					87489-1.RAW	11:57:34	1633.34	Sample	OK	1	
1709619-08	C1		100	8.94	1022.51					87490-1.RAW	12:01:43	1835.83	Sample	OK	1	

SEQ-CCV3	C2	1	8.94	4.87	97.35	87491-1.RAW	12:05:51	878.64	Sample	OK	1
SEQ-CCB3	C3	1	8.94	0.07	0.00	87492-1.RAW	12:09:59	21.49	Sample	OK	1
1709619-09	C4	100	8.94	935.64		87493-1.RAW	12:14:08	1680.62	Sample	OK	1
1709619-10	C5	100	8.94	967.54		87494-1.RAW	12:18:16	1737.63	Sample	OK	1
1709619-11	C6	100	8.94	1011.16		87495-1.RAW	12:22:25	1815.57	Sample	OK	1
1709619-12	C7	100	8.94	1048.33		87496-1.RAW	12:26:33	1881.97	Sample	OK	1
1709619-13	C8	100	8.94	1031.99		87497-1.RAW	12:30:42	1852.77	Sample	OK	1
1709619-14	C9	100	8.94	1107.54		87498-1.RAW	12:34:50	1987.76	Sample	OK	1
1709619-15	C10	100	8.94	1014.08		87499-1.RAW	12:38:59	1820.77	Sample	OK	1
1709619-16	C11	100	8.94	853.62		87500-1.RAW	12:43:07	1534.09	Sample	OK	1
1709619-17	C12	100	8.94	882.46		87501-1.RAW	12:47:15	1585.61	Sample	OK	1
1709619-18	C13	100	8.94	942.07		87502-1.RAW	12:51:24	1692.12	Sample	OK	1
SEQ-CCV4	C14	1	8.94	5.20	103.98	87503-1.RAW	12:55:32	937.83	Sample	OK	1
SEQ-CCB4	C15	1	8.94	0.05	0.00	87504-1.RAW	12:59:41	18.47	Sample	OK	1
1709619-19	C16	100	8.94	977.03		87505-1.RAW	13:03:49	1754.58	Sample	OK	1
1709619-20	C17	100	8.94	821.77		87506-1.RAW	13:07:58	1477.18	Sample	OK	1
1709620-01	C18	100	8.94	654.39		87507-1.RAW	13:12:06	1178.13	Sample	OK	1
1709620-02	C19	100	8.94	1826.19		87508-1.RAW	13:16:15	3271.75	Sample	OK	1
1709620-03	C20	100	8.94	2339.16		87509-1.RAW	13:20:23	4188.28	Sample	OK	1
1709620-04	C21	100	8.94	1419.53		87510-1.RAW	13:24:31	2545.18	Sample	OK	1
1709620-07	A1	100	8.94	1648.72		87511-1.RAW	13:28:40	2954.67	Sample	OK	1
F710215-DUP1	A2	100	8.94	996.46		87512-1.RAW	13:32:48	1789.30	Sample	OK	1
F710215-MS1	A3	400	8.94	5643.59	565.80	87513-1.RAW	13:36:57	2529.76	Sample	OK	1
F710215-MSD1	A4	400	8.94	5658.16		87514-1.RAW	13:41:05	2536.27	Sample	OK	1
SEQ-CCV5	A5	1	8.94	5.23	104.55	87515-1.RAW	13:45:14	942.94	Sample	OK	1
SEQ-CCB5	A6	1	8.94	0.14	0.00	87516-1.RAW	13:49:22	34.80	Sample	OK	1
F710215-MS2	A7	400	8.94	5665.77	264166.22	87517-1.RAW	13:53:30	2539.67	Sample	OK	1
F710215-MSD2	A8	400	8.94	6038.79		87518-1.RAW	13:57:39	2706.28	Sample	OK	1
F710291-BLK1	A9	20	8.94	3.85		87519-1.RAW	14:01:47	43.35	Sample	OK	1
F710291-BLK2	A10	20	8.94	2.20		87520-1.RAW	14:05:56	28.60	Sample	OK	1
F710291-BLK3	A11	20	8.94	2.47		87521-1.RAW	14:10:04	30.99	Sample	OK	1
*F710291-BLK4	A12	20	8.94	1.75		87522-1.RAW	14:14:13	24.55	Sample	OK	1
*F710291-BLK5	A13	20	8.94	1.78		87523-1.RAW	14:18:21	24.83	Sample	OK	1
WS	A17	100	8.94	485.28		87524-1.RAW	14:22:30	875.97	Sample	OK	1
F710291-BS1	A14	20	8.94	107.15		87525-1.RAW	14:26:38	966.14	Sample	OK	1
F710291-BSD1	A15	20	8.94	109.81		87526-1.RAW	14:30:46	989.96	Sample	OK	1
SEQ-CCV6	A17	1	8.94	4.96	99.23	87527-1.RAW	14:34:55	895.36	Sample	OK	1
SEQ-CCB6	A18	1	8.94	0.08	0.00	87528-1.RAW	14:39:03	24.04	Sample	OK	1
1709629-19	A19	100	8.94	1007.58		87529-2.RAW	14:44:22	1809.16	Sample	OK	1
F710291-BS2	A16	400	8.94	2408.83		87530-1.RAW	14:48:30	1084.89	Sample	OK	1
1709629-20	A20	100	8.94	1350.11		87531-1.RAW	14:52:39	2421.15	Sample	OK	1
1709630-01	A21	100	8.94	1167.28		87532-1.RAW	14:56:47	2094.50	Sample	OK	1
1709630-02	B1	100	8.94	1209.34		87533-1.RAW	15:00:56	2169.65	Sample	OK	1
1709630-03	B2	100	8.94	653.86		87534-1.RAW	15:05:04	1177.18	Sample	OK	1
1709630-04	B3	100	8.94	1893.50		87535-1.RAW	15:09:12	3392.02	Sample	OK	1
1709630-05	B4	100	8.94	998.24		87536-1.RAW	15:13:21	1792.48	Sample	OK	1
1709630-06	B5	100	8.94	1398.20		87537-1.RAW	15:17:29	2507.07	Sample	OK	1
1709630-07	B6	100	8.94	1464.67		87538-1.RAW	15:21:38	2625.83	Sample	OK	1
SEQ-CCV7	B7	1	8.94	5.11	102.13	87539-1.RAW	15:25:46	921.29	Sample	OK	1
SEQ-CCB7	B8	1	8.94	0.12	0.00	87540-1.RAW	15:29:55	30.69	Sample	OK	1
1709630-08	B9	100	8.94	1694.05		87541-1.RAW	15:34:03	3035.66	Sample	OK	1
1709630-09	B10	100	8.94	1465.39		87542-1.RAW	15:38:12	2627.13	Sample	OK	1
1709630-10	B11	100	8.94	840.84		87543-1.RAW	15:42:20	1511.24	Sample	OK	1
1709630-11	B12	100	8.94	1088.96		87544-1.RAW	15:46:28	1954.56	Sample	OK	1

WRONG LOCATION

1709630-12	B13	100	8.94	768.90		87545-1.RAW	15:50:36	1382.72	Sample	OK	1
1709630-13	B14	100	8.94	1233.93		87546-1.RAW	15:54:44	2213.58	Sample	OK	1
1709630-14	B15	100	8.94	1178.31		87547-1.RAW	15:58:52	2114.21	Sample	OK	1
1709630-15	B16	100	8.94	1624.71		87548-1.RAW	16:03:01	2911.77	Sample	OK	1
1709630-16	B17	100	8.94	1057.21		87549-1.RAW	16:07:09	1897.84	Sample	OK	1
1709630-17	B18	100	8.94	1412.25		87550-1.RAW	16:11:17	2532.17	Sample	OK	1
SEQ-CCV8	B19	1	8.94	5.13	102.59	87551-1.RAW	16:15:26	925.45	Sample	OK	1
SEQ-CCB8	B20	1	8.94	0.15	0.00	87552-1.RAW	16:19:34	36.62	Sample	OK	1
1709630-18	B21	100	8.94	1272.31		87553-1.RAW	16:23:43	2282.15	Sample	OK	1
F710291-DUP1	C1	100	8.94	1033.85		87554-1.RAW	16:27:51	1856.10	Sample	OK	1
F710291-MS1	C2	400	8.94	6227.66	601.79	87555-1.RAW	16:31:59	2790.65	Sample	OK	1
F710291-MSD1	C3	400	8.94	5516.38		87556-1.RAW	16:36:08	2472.94	Sample	OK	1
F710291-MS2	C4	400	8.94	6130.98	111.10	87557-1.RAW	16:40:16	2747.46	Sample	OK	1
F710291-MSD2	C5	400	8.94	6114.31		87558-1.RAW	16:44:25	2740.02	Sample	OK	1
F710351-BLK1	C6	50	8.94	9.94		87559-1.RAW	16:48:33	44.44	Sample	OK	1
F710351-BLK2	C7	50	8.94	5.67		87560-1.RAW	16:52:41	29.20	Sample	OK	1
F710351-BS1	C8	400	8.94	2936.60		87561-1.RAW	16:56:50	1320.63	Sample	OK	1
F710351-BSD1	C9	400	8.94	2439.57		87562-1.RAW	17:00:58	1098.62	Sample	OK	1
SEQ-CCV9	C10	1	8.94	5.09	101.80	87563-1.RAW	17:05:07	918.40	Sample	OK	1
SEQ-CCB9	C11	1	8.94	0.14	0.00	87564-1.RAW	17:09:15	33.31	Sample	OK	1
1710455-01	C12	50	8.94	4.64		87565-1.RAW	17:13:24	25.53	Sample	OK	1
1710458-01	C13	50	8.94	3.95		87566-1.RAW	17:17:32	23.05	Sample	OK	1
F710351-DUP1	C14	50	8.94	2.23		87567-1.RAW	17:21:40	16.89	Sample	OK	1
F710351-MS1	C15	400	8.94	2883.66	89398.43	87568-1.RAW	17:25:49	1296.98	Sample	OK	1
F710351-MSD1	C16	400	8.94	2739.47		87569-1.RAW	17:29:57	1232.58	Sample	OK	1
SEQ-CCVA	C17	1	8.94	5.09		87570-1.RAW	17:34:06	918.05	Sample	OK	1
SEQ-CCBA	C18	1	8.94	0.11		87571-1.RAW	17:38:14	28.53	Sample	OK	1
SNCL 1706141	C19	1	8.94	0.06		87572-1.RAW	17:42:22	20.12	Sample	OK	1
CLEAN			0.00	0.05		87573-1.RAW	17:45:14	9.54	Clean	OK	1
CLEAN			0.00	0.05		87574-1.RAW	17:48:05	9.59	Clean	OK	1
WS			8.94	0.05		87575-1.RAW	17:52:14	17.45	Sample	OK	1
WS			8.94	0.00		87576-1.RAW	17:56:22	7.84	Sample	OK	1
WS			8.94	0.02		87577-1.RAW	18:00:30	13.09	Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE

PEER-REVIEWED

7J18020

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R 10/19/17* Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18020-IBL1 ✓	QC	1			
7J18020-IBL2 ✓	QC	2			
7J18020-IBL3 ✓	QC	3			
7J18020-CAL1 ✓	QC	4	1704505		
7J18020-CAL2 ✓	QC	5	1704506		
7J18020-CAL3 ✓	QC	6	1704507		
7J18020-CAL4 ✓	QC	7	1704508		
7J18020-CAL5 ✓	QC	8	1704509		
7J18020-ICV1 ✓	QC	9	1705628		
7J18020-CCV1 ✓	QC	10	1705628		
7J18020-CCB1 ✓	QC	11			
F710215-BLK3 ✓	QC	12			
F710215-BLK4 ✓	QC	13			
F710215-BLK5 ✓	QC	14			
7J18020-CCV2 ✓	QC	15	1705628		
7J18020-CCB2 ✓	QC	16			
F710215-BLK6 ✓	QC	17			
F710215-BLK7 ✓	QC	18			
F710215-BLK1 ✓	QC	19			
F710215-BLK2 ✓	QC	20			
F710215-BS1 ✓	QC	21			
F710215-BSD1 ✓	QC	22			
F710215-BS2 ✓	QC	23			
1709619-06 ✓	Hg-CVAFS-T-7030	24			
1709619-07 ✓	Hg-CVAFS-T-7030	25			
1709619-08 ✓	Hg-CVAFS-T-7030	26			
7J18020-CCV3	QC	27	1705628		
7J18020-CCB3 ✓	QC	28			
1709619-09 ✓	Hg-CVAFS-T-7030	29			
1709619-10 ✓	Hg-CVAFS-T-7030	30			
1709619-11 ✓	Hg-CVAFS-T-7030	31			
1709619-12 ✓	Hg-CVAFS-T-7030	32			
1709619-13 ✓	Hg-CVAFS-T-7030	33			
1709619-14 ✓	Hg-CVAFS-T-7030	34			
1709619-15 ✓	Hg-CVAFS-T-7030	35			

ANALYSIS SEQUENCE

7J18020

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709619-16 ✓	Hg-CVAFS-T-7030	36			
1709619-17 ✓	Hg-CVAFS-T-7030	37			
1709619-18 ✓	Hg-CVAFS-T-7030	38			
7J18020-CCV4 ✓	QC	39	1705628	✓	
7J18020-CCB4 ✓	QC	40			
1709619-19 ✓	Hg-CVAFS-T-7030	41			
1709619-20 ✓	Hg-CVAFS-T-7030	42			
1709620-01 ✓	Hg-CVAFS-T-7030	43			
1709620-02 ✓	Hg-CVAFS-T-7030	44			
1709620-03 ✓	Hg-CVAFS-T-7030	45			
1709620-04 ✓	Hg-CVAFS-T-7030	46			
1709620-07 ✓	Hg-CVAFS-T-7030	47			
F710215-DUP1 ✓	QC	48			
F710215-MS1 ✓	QC	49			
F710215-MSD1 ✓	QC	50			
7J18020-CCV5 ✓	QC	51	1705628		
7J18020-CCB5 ✓	QC	52			
F710215-MS2 ✓	QC	53			
F710215-MSD2 ✓	QC	54			
F710291-BLK1 ✓	QC	55			
F710291-BLK2 ✓	QC	56			
F710291-BLK3 ✓	QC	57			
F710291-BLK4 ✓	QC	58			
F710291-BLK5 ✓	QC	59			
F710291-BS1 ✓	QC	60			
F710291-BSD1 ✓	QC	61			
7J18020-CCV6 ✓	QC	62	1705628	✓	
7J18020-CCB6 ✓	QC	63			
1709629-19 ✓	Hg-CVAFS-T-7030	64			
F710291-BS2 ✓	QC	65			
1709629-20 ✓	Hg-CVAFS-T-7030	66			
1709630-01 ✓	Hg-CVAFS-T-7030	67			
1709630-02 ✓	Hg-CVAFS-T-7030	68			
1709630-03 ✓	Hg-CVAFS-T-7030	69			
1709630-04 ✓	Hg-CVAFS-T-7030	70			

Due Date: 10/20/2017

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Page 2 of 3

ANALYSIS SEQUENCE

7J18020

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709630-05 ✓	Hg-CVAFS-T-7030	71			
1709630-06 ✓	Hg-CVAFS-T-7030	72			
1709630-07 ✓	Hg-CVAFS-T-7030	73			
7J18020-CCV7 ✓	QC	74	1705628	✓	
7J18020-CCB7 ✓	QC	75			
1709630-08 ✓	Hg-CVAFS-T-7030	76			
1709630-09 ✓	Hg-CVAFS-T-7030	77			
1709630-10 ✓	Hg-CVAFS-T-7030	78			
1709630-11 ✓	Hg-CVAFS-T-7030	79			
1709630-12 ✓	Hg-CVAFS-T-7030	80			
1709630-13 ✓	Hg-CVAFS-T-7030	81			
1709630-14 ✓	Hg-CVAFS-T-7030	82			
1709630-15 ✓	Hg-CVAFS-T-7030	83			
1709630-16 ✓	Hg-CVAFS-T-7030	84			
1709630-17 ✓	Hg-CVAFS-T-7030	85		✓	
7J18020-CCV8 ✓	QC	86	1705628		
7J18020-CCB8 ✓	QC	87			
1709630-18 ✓	Hg-CVAFS-T-7030	88			
F710291-DUP1 ✓	QC	89			
F710291-MS1 ✓	QC	90			
F710291-MSD1 ✓	QC	91			
F710291-MS2 ✓	QC	92			
F710291-MSD2 ✓	QC	93			
7J18020-CCV9 ✓	QC	94	1705628	✓	
7J18020-CCB9 ✓	QC	95			

Beck 10/18/17
 Samples Loaded By Date
 10787
 10/17/17

Beck 10/18/17
 Data Processed By Date

Failing Data Report - 7J18020

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Becij 10/18/17
Analyst Reviewed By Date

[Signature] 10/19/17
Peer Reviewed By Date

PREPARATION BENCH SHEET

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710215-BLK1	Blank	0.25	20					
F710215-BLK2	Blank	0.25	20					
F710215-BLK3	Blank	0.25	20					
F710215-BLK4	Blank	0.266	20					Pre-homogenization Blank for 1709619
F710215-BLK5	Blank	0.258	20					Post-homogenization Blank for 1709619
F710215-BLK6	Blank	0.276	20					Pre-homogenization Blank for 1709620
F710215-BLK7	Blank	0.252	20					Post-homogenization Blank for 1709620
F710215-BS1	LCS	0.25	20	1704421	20			
F710215-BS2	DORM4	0.1256	20	1705412	125.6			
F710215-BSD1	LCS Dup	0.25	20	1704421	20			
F710215-DUP1	Duplicate [1709619-06]	0.276	20					
F710215-MS1	Matrix Spike [1709619-06]	0.276	20	1705554	100			
F710215-MS2	Matrix Spike [1709619-07]	0.267	20	1705554	100			
F710215-MSD1	Matrix Spike Dup [1709619-06]	0.266	20	1705554	100			
F710215-MSD2	Matrix Spike Dup [1709619-07]	0.274	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00

PREPARATION BENCH SHEET

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709619-06	OB-05_17SN001_091517_MUM_06_WB	0.28	20	-	-	-		
1709619-07	OB-05_17SN001_091517_MUM_07_WB	0.254	20	-	-	-		
1709619-08	OB-05_17SN001_091517_MUM_08_WB	0.263	20	-	-	-		
1709619-09	OB-05_17SN001_091517_MUM_09_WB	0.252	20	-	-	-		
1709619-10	OB-05_17SN001_091517_MUM_10_WB	0.259	20	-	-	-		
1709619-11	OB-05_17SN001_091517_MUM_11_WB	0.262	20	-	-	-		
1709619-12	OB-05_17SN001_091517_MUM_12_WB	0.259	20	-	-	-		
1709619-13	OB-05_17SN001_091517_MUM_13_WB	0.268	20	-	-	-		
1709619-14	OB-05_17SN001_091517_MUM_14_WB	0.272	20	-	-	-		
1709619-15	OB-05_17SN001_091517_MUM_15_WB	0.261	20	-	-	-		
1709619-16	OB-05_17SN001_091517_MUM_16_WB	0.262	20	-	-	-		
1709619-17	OB-05_17SN001_091517_MUM_17_WB	0.265	20	-	-	-		
1709619-18	OB-05_17SN001_091517_MUM_18_WB	0.269	20	-	-	-		
1709619-19	OB-05_17SN001_091517_MUM_19_WB	0.255	20	-	-	-		
1709619-20	OB-05_17SN001_091517_MUM_20_WB	0.262	20	-	-	-		
1709620-01	MMMC-01_17MT001_091817_MUM_01_WB	0.254	20	-	-	-		
1709620-02	MMMC-01_17MT001_092017_MUM_02_WB	0.267	20	-	-	-		
1709620-03	MMMC-01_17MT004_092017_MUM_03_WB	0.271	20	-	-	-		
1709620-04	MMMC-01_17MT004_092017_MUM_04_WB	0.261	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710215

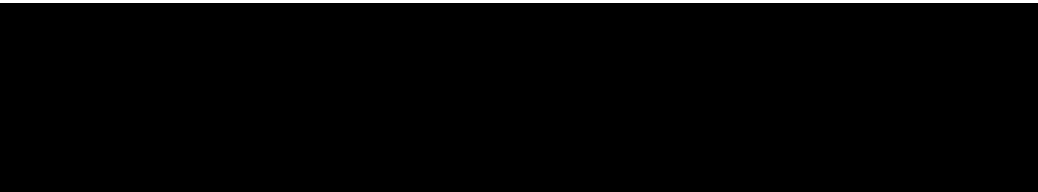
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709620-07	MMMC-01_17MT003_092017_MUM_07_WB	0.2702	20	-	-	-		
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PREPARATION BENCH SHEET

200-2
10/17/17 BC

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710215-BLK1	Blank	0.25	20					20X -
F710215-BLK2	Blank	0.25	20					20X -
F710215-BLK3	Blank	0.25	20					20X -
F710215-BLK4	Blank	0.266	20					Pre-homogenization Blank for 1709619 20X
F710215-BLK5	Blank	0.258	20					Post-homogenization Blank for 1709619 20X
F710215-BLK6	Blank	0.276	20					Pre-homogenization Blank for 1709620 20X
F710215-BLK7	Blank	0.252	20					Post-homogenization Blank for 1709620 20X
F710215-BS1	LCS	0.25	20	1704421	20			20X -
F710215-BS2	DORM4	0.1256	20	1705412	125.6			400X -
F710215-BSD1	LCS Dup	0.25	20	1704421	20			20X -
F710215-DUP1	Duplicate [1709619-06]	0.276	20					100X -
F710215-MS1	Matrix Spike [1709619-06]	0.276	20	1705554	100			400X -
F710215-MS2	Matrix Spike [1709619-07]	0.252	20	1705554	100			400X -
F710215-MSD1	Matrix Spike Dup [1709619-06]	0.266	20	1705554	100			400X -
F710215-MSD2	Matrix Spike Dup [1709619-07]	0.274	20	1705554	100			400X -

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705915	5% BrCl	14-Mar-18 00:00

~~BLK 8 is run of BLK 1~~
~~BLK 9 is run of BLK 2~~

1709182
1705961
1705410
1705411

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709619-06	OB-05_17SN001_091517_MUM_06_WB	0.28	20	-	-	-		100X ✓
1709619-07	OB-05_17SN001_091517_MUM_07_WB	0.254	20	-	-	-		100X ✓
1709619-08	OB-05_17SN001_091517_MUM_08_WB	0.263	20	-	-	-		100X ✓
1709619-09	OB-05_17SN001_091517_MUM_09_WB	0.252	20	-	-	-		100X ✓
1709619-10	OB-05_17SN001_091517_MUM_10_WB	0.259	20	-	-	-		100X ✓
1709619-11	OB-05_17SN001_091517_MUM_11_WB	0.262	20	-	-	-		100X ✓
1709619-12	OB-05_17SN001_091517_MUM_12_WB	0.259	20	-	-	-		100X ✓
1709619-13	OB-05_17SN001_091517_MUM_13_WB	0.268	20	-	-	-		100X ✓
1709619-14	OB-05_17SN001_091517_MUM_14_WB	0.272	20	-	-	-		100X ✓
1709619-15	OB-05_17SN001_091517_MUM_15_WB	0.261	20	-	-	-		100X ✓
1709619-16	OB-05_17SN001_091517_MUM_16_WB	0.262	20	-	-	-		100X ✓
1709619-17	OB-05_17SN001_091517_MUM_17_WB	0.265	20	-	-	-		100X ✓
1709619-18	OB-05_17SN001_091517_MUM_18_WB	0.269	20	-	-	-		100X ✓
1709619-19	OB-05_17SN001_091517_MUM_19_WB	0.255	20	-	-	-		100X ✓
1709619-20	OB-05_17SN001_091517_MUM_20_WB	0.262	20	-	-	-		100X ✓
1709620-01	MMMC-01_17MT001_091817_MUM_01_WB	0.254	20	-	-	-		100X ✓
1709620-02	MMMC-01_17MT001_092017_MUM_02_WB	0.267	20	-	-	-		100X ✓
1709620-03	MMMC-01_17MT004_092017_MUM_03_WB	0.271	20	-	-	-		100X ✓
1709620-04	MMMC-01_17MT004_092017_MUM_04_WB	0.261	20	-	-	-		100X ✓

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709620-07	MMMC-01_17MT003_092017_MUM_07_WB	0.2702	20	-	-	-		100X ✓
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Batch#: F710215 Date: 10/4/17

- EFAS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6, 19 (DORM 4) Calibrated? Yes No Therm.#: 40418012 Calibrated? Yes No

*Time in: 17:00 Actual Temp. (raw): 80.12 °C w/ CF: 19.7 °C

Time out: 19:00 Actual Temp. (raw): Timer °C w/ CF: Timer °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705915) Spike vol.: 100 μL (LIMS ID: 1705554)

Spike Witness: DM 10/4/17 (initial and date)

HCl LIMS ID: NA

Pipette SN#: MM11619 Calibration Date: 10/2/17

HNO₃ LIMS ID: NA

Pipette SN#: NA Calibration Date: NA

70/30 LIMS ID: 1705859

Dispenser #: 02K2749 Calibrated? Yes No

Other Acid LIMS ID: NA

Dispenser #: 15406623

Glass Vial # 00063642, Boiling Chip lot # 1702551 *Hotblock Position: M5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710215 - Blk1	0.266	23	1709619 - 17	0.265	BS2 = DORM 4 LIMS: 1705402
2	F710215 - Blk2	0.253	24	1709619 - 18	0.269	
3	F710215 - Blk3	0.272	25	1709619 - 19	0.255	
4	F710215 - BS1	0.258	26	1709619 - 20	0.262	Comments
5	F710215 - BSD1	0.277	27	1709620 - 01	0.254	
6	F710215 - BS2	0.256	28	1709620 - 02	0.267	DUP/ms1/msD1 source: 1709619-06
7	1709619 - 06	0.280	29	1709620 - 03	0.271	ms2/msD2 source: 1709619-07
8	F710215 - DUP1	0.276	30	1709620 - 04	0.261	BS1/BSD1 spilled with 20μL of 1704421
9	F710215 - ms1	0.276	31	1709620 - 05 taken out of batch w/CF 10/4/17		
10	F710215 - msD1	0.266	32	F710215 - Blk4	0.266	Blk4 + 5 are Pre/Post blanks
11	1709619 - 07	0.254	33	F710215 - Blk5	0.258	
12	F710215 - ms2	0.267	34	F710215 - Blk6	0.276	Blk6 + 7 are Pre/Post blanks for 1709620
13	F710215 - msD2	0.274	35	F710215 - Blk7	0.252	
14	1709619 - 08	0.263	36	1709620 - 06	0.270	Blk6 + 7 are Pre/Post blanks for 1709620
15	1709619 - 09	0.252	37	07 0.275 8/17		
16	1709619 - 10	0.259	38			Blk6 + 7 are Pre/Post blanks for 1709620
17	1709619 - 11	0.262	39			
18	1709619 - 12	0.259	40			Blk3 does not seem to be 1/20mL Final Volume cu 10/5/17
19	1709619 - 13	0.268	41			
20	1709619 - 14	0.272	42			
21	1709619 - 15	0.261	43			
22	1709619 - 16	0.262	44			

PREPARATION BENCH SHEET

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710291-BLK1	Blank	0.25	20					
F710291-BLK2	Blank	0.25	20					
F710291-BLK3	Blank	0.25	20					
F710291-BLK4	Blank	0.298	20					Pre-homogenization Blank for 1709630 + 1709631
F710291-BLK5	Blank	0.295	20					Post-homogenization Blank for 1709630 + 1709631
F710291-BS1	LCS	0.25	20	1704421	20			
F710291-BS2	DORM4	0.1298	20	1705412	129.8			
F710291-BSD1	LCS Dup	0.25	20	1704421	20			
F710291-DUP1	Duplicate [1709629-19]	0.28	20					
F710291-MS1	Matrix Spike [1709629-19]	0.291	20	1705554	100			
F710291-MS2	Matrix Spike [1709630-08]	0.261	20	1705554	100			
F710291-MSD1	Matrix Spike Dup [1709629-19]	0.274	20	1705554	100			
F710291-MSD2	Matrix Spike Dup [1709630-08]	0.285	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705927	70/30 Digestion Acid	02-Apr-18 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709629-19	ES-FP_17HC001_091917_BLM_19_WB	0.279	20	-	-	-		
1709629-20	ES-FP_17HC001_091917_BLM_20_WB	0.277	20	-	-	-		
1709630-01	ES-13_17HC001_091417_BLM_01_WB	0.29	20	-	-	-		
1709630-02	ES-13_17HC001_091417_BLM_02_WB	0.279	20	-	-	-		
1709630-03	ES-13_17HC001_091417_BLM_03_WB	0.269	20	-	-	-		
1709630-04	ES-13_17HC001_091417_BLM_04_WB	0.262	20	-	-	-		
1709630-05	ES-13_17HC001_091417_BLM_05_WB	0.277	20	-	-	-		
1709630-06	ES-13_17HC001_091417_BLM_06_WB	0.256	20	-	-	-		
1709630-07	ES-13_17HC001_091417_BLM_07_WB	0.267	20	-	-	-		
1709630-08	ES-13_17HC001_091417_BLM_08_WB	0.278	20	QC	-	-	MS/MSD	
1709630-09	ES-13_17HC001_091417_BLM_09_WB	0.277	20	-	-	-		
1709630-10	ES-13_17HC001_091417_BLM_10_WB	0.271	20	-	-	-		
1709630-11	ES-13_17HC001_091417_BLM_11_WB	0.27	20	-	-	-		
1709630-12	ES-13_17HC001_091417_BLM_12_WB	0.275	20	-	-	-		
1709630-13	ES-13_17HC001_091417_BLM_13_WB	0.285	20	-	-	-		
1709630-14	ES-13_17HC001_091417_BLM_14_WB	0.271	20	-	-	-		
1709630-15	ES-13_17HC001_091417_BLM_15_WB	0.259	20	-	-	-		
1709630-16	ES-13_17HC001_091417_BLM_16_WB	0.288	20	-	-	-		
1709630-17	ES-13_17HC001_091417_BLM_17_WB	0.254	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709630-18	ES-13_17HC001_091417_BLM_18_WB	0.28	20	-	-	-		
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PREPARATION BENCH SHEET

2600-2
10/17/17 BC

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710291-BLK1	Blank	0.25	20					20x
F710291-BLK2	Blank	0.25	20					20x
F710291-BLK3	Blank	0.25	20					20x
F710291-BLK4	Blank	0.298	20					Pre-homogenization Blank for 1709630 + 1709631
F710291-BLK5	Blank	0.295	20					Post-homogenization Blank for 1709630 + 1709631
F710291-BS1	LCS	0.25	20	1704421	20			20x
F710291-BS2	DORM4	0.1298	20	1705412	129.8			400x
F710291-BSD1	LCS Dup	0.25	20	1704421	20			20x
F710291-DUP1	Duplicate [1709629-19]	0.28	20					100x
F710291-MS1	Matrix Spike [1709629-19]	0.291	20	1705554	100			400x
F710291-MS2	Matrix Spike [1709630-08]	0.261	20	1705554	100			400x
F710291-MSD1	Matrix Spike Dup [1709629-19]	0.274	20	1705554	100			400x
F710291-MSD2	Matrix Spike Dup [1709630-08]	0.285	20	1705554	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705927	70/30 Digestion Acid	02-Apr-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706079	5% BrCl	14-Mar-18 00:00

20x = 2.5 mL
~~40x =~~
 100x = 500 µL
 400x = 125 µL

1705610
 1705611
 1705961
 1703182

2600-2
10/17/17 JCL

PREPARATION BENCH SHEET

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709629-19	ES-FP_17HC001_091917_BLM_19_WB	0.279	20	-	-	-	100X -	
1709629-20	ES-FP_17HC001_091917_BLM_20_WB	0.277	20	-	-	-	100X -	
1709630-01	ES-13_17HC001_091417_BLM_01_WB	0.29	20	-	-	-	100X -	
1709630-02	ES-13_17HC001_091417_BLM_02_WB	0.279	20	-	-	-	100X -	
1709630-03	ES-13_17HC001_091417_BLM_03_WB	0.269	20	-	-	-	100X -	
1709630-04	ES-13_17HC001_091417_BLM_04_WB	0.262	20	-	-	-	100X -	
1709630-05	ES-13_17HC001_091417_BLM_05_WB	0.277	20	-	-	-	100X -	
1709630-06	ES-13_17HC001_091417_BLM_06_WB	0.256	20	-	-	-	100X -	
1709630-07	ES-13_17HC001_091417_BLM_07_WB	0.267	20	-	-	-	100X -	
1709630-08	ES-13_17HC001_091417_BLM_08_WB	0.278	20	QC	-	-	MS/MSD 100X -	
1709630-09	ES-13_17HC001_091417_BLM_09_WB	0.277	20	-	-	-	100X -	
1709630-10	ES-13_17HC001_091417_BLM_10_WB	0.271	20	-	-	-	100X -	
1709630-11	ES-13_17HC001_091417_BLM_11_WB	0.27	20	-	-	-	100X -	
1709630-12	ES-13_17HC001_091417_BLM_12_WB	0.275	20	-	-	-	100X -	
1709630-13	ES-13_17HC001_091417_BLM_13_WB	0.285	20	-	-	-	100X -	
1709630-14	ES-13_17HC001_091417_BLM_14_WB	0.271	20	-	-	-	100X -	
1709630-15	ES-13_17HC001_091417_BLM_15_WB	0.259	20	-	-	-	100X -	
1709630-16	ES-13_17HC001_091417_BLM_16_WB	0.288	20	-	-	-	100X -	
1709630-17	ES-13_17HC001_091417_BLM_17_WB	0.254	20	-	-	-	100X -	

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2
10/17/17B

F710291

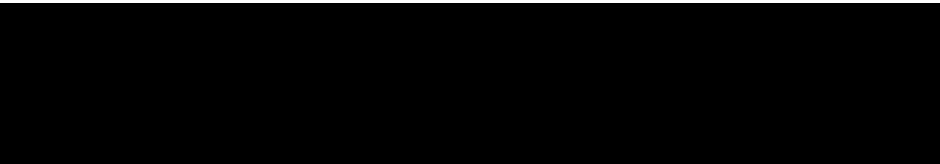
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709630-18	ES-13_17HC001_091417_BLM_18_WB	0.28	20	-	-	-	100%	
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Technician: wf Batch#: F710291 Date: 10/12/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19 (DORM) Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 18:10 Actual Temp. (raw): 72.0 °C w/ CF: 71.7 °C
 Time out: 9:45 Actual Temp. (raw): 80.0 °C w/ CF: 79.3 °C 79.7 °C

*Time in can't begin before target temperature is reached
 Final vol.: 20 mL (LIMS ID: 1706079) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: DM 10/12/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: M11619 Calibration Date: 10/9/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1706064 Dispenser #: 0262749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406523 JYS
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: A3

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710291 - Blk1	0.266	23	1709630 - 10	0.271	BS2=DORM
2	F710291 - Blk2	0.261	24	1709630 - 11	0.270	LIMS: 1705412 Balance: 19
3	F710291 - Blk3	0.259	25	1709630 - 12	0.275	
4	F710291 - BSI	0.261	26	1709630 - 13	0.285	Comments
5	F710291 - BSD1	0.283	27	1709630 - 14	0.271	BSI/BSD1 spiked
6	F710291 - BS2	0.1298	28	1709630 - 15	0.259	with 20µl of 1704421
7	1709629 - 19	0.279	29	1709630 - 16	0.288	
8	F710291 - DUP1	0.280	30	1709630 - 17	0.254	DUP1/MS1/MSD1
9	F710291 - MS1	0.291	31	1709630 - 18	0.280	source: 1709629-19
10	F710291 - MSD1	0.274	32			MS2/MSD2
11	1709629 - 20	0.277	33			source: 1709629-20 1709630-08 wf 10/12/17
12	1709630 - 01	0.290	34			
13	1709630 - 02	0.279	35			* Blk 4+5 Pre/Post
14	1709630 - 03	0.269	36			blanks for 1709630, 1709630
15	1709630 - 04	0.262	37			added 10/12/17 wf.
16	1709630 - 05	0.277	38			
17	1709630 - 06	0.256	39			5% BrCl added by
18	1709630 - 07	0.267	40			AMB.
19	1709630 - 08	0.278	41			*AMB 10/13/17
20	F710291 - MS2	0.261	42			
21	F710291 - MSD2	0.285	43			
22	1709630 - 09	0.277	44			

* 32 F710291 - Blk4 (0.298) wf 10/12/17 * 33 F710291 - Blk5 (0.295) wf 10/12/17

ANALYSIS SEQUENCE

QUALITY ASSURANCE

PEER-REVIEWED

7J18019

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *pc 10/19/17*
 Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18019-IBL1	QC	1			
7J18019-IBL2	QC	2			
7J18019-IBL3	QC	3			
7J18019-CAL1	QC	4	1704505	✓	
7J18019-CAL2	QC	5	1704506	✓	
7J18019-CAL3	QC	6	1704507	✓	
7J18019-CAL4	QC	7	1704508	✓	
7J18019-CAL5	QC	8	1704509	✓	
7J18019-ICV1	QC	9	1705628	✓	
7J18019-CCV1	QC	10	1705628	✓	
7J18019-CCB1	QC	11			
7J18019-CCV2	QC	12	1705628	✓	
7J18019-CCB2	QC	13			
7J18019-CCV3	QC	14	1705628	✓	
7J18019-CCB3	QC	15			
7J18019-CCV4	QC	16	1705628	✓	
7J18019-CCB4	QC	17			
7J18019-CCV5	QC	18	1705628	✓	
7J18019-CCB5	QC	19			
7J18019-CCV6	QC	20	1705628	✓	
7J18019-CCB6	QC	21			
7J18019-CCV7	QC	22	1705628	✓	
7J18019-CCB7	QC	23			
7J18019-CCV8	QC	24	1705628	✓	
7J18019-CCB8	QC	25			
F710351-BLK1	QC	26			
F710351-BLK2	QC	27			
F710351-BS1	QC	28			
F710351-BSD1	QC	29			
7J18019-CCV9	QC	30	1705628	✓	
7J18019-CCB9	QC	31			
1710455-01	Hg-CVAFS-S-Bomb	32			QG00L-1 - Prep 2.0-2.15 grams
1710458-01	Hg-CVAFS-S-Bomb	33			QG00L-1 - Prep 2.0-2.15 grams
F710351-DUP1	QC	34			
F710351-MS1	QC	35			

ANALYSIS SEQUENCE

7J18019

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F710351-MSD1 ✓	QC	36			
7J18019-CCVA ✓	QC	37	1705628	✓	
7J18019-CCBA ✓	QC	38			

Beck 10/18/17
Samples Loaded By Date

Beck 10/18/17
Data Processed By Date

10/17/17
BPA1

Failing Data Report - 7J18019

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Be cing 10/18/17
Analyst Reviewed By Date

[Signature] 12/19/17
Peer Reviewed By Date

PREPARATION BENCH SHEET

F710351

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710351-BLK1	Blank	0.5	50					
F710351-BLK2	Blank	0.5	50					
F710351-BS1	LCS	0.5	50	1705879	50			
F710351-BSD1	LCS Dup	0.5	50	1705879	50			
F710351-DUP1	Duplicate [1710458-01]	2.0436	50					
F710351-MS1	Matrix Spike [1710458-01]	2.0093	50	1705879	50			
F710351-MSD1	Matrix Spike Dup [1710458-01]	2.0268	50	1705879	50			

Standard ID(s): 1705879
Description: EFGS-PREP SPIKE1/2, plus Hg

Expiration: 02-Jan-18 00:00

<u>Reagent ID(s):</u> 1703182	<u>Description:</u> 25% Hydroxylamine-HCl working solution	<u>Expiration:</u> 24-Nov-17 00:00
1705610	THg Washstation (0.5% BrCl)	
1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
1705679	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
1705961	3% SnCl2 THg reductant	25-Mar-18 00:00

PREPARATION BENCH SHEET

F710351

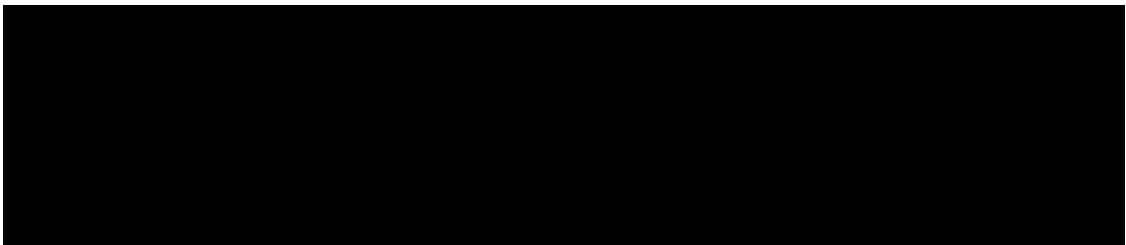
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710455-01	740-2017-10120001 EUUSBO2-00094885	2.04	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	
1710458-01	740-2017-10120002 EUUSBO2-00094886	2.0943	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	



Sample Preparation Review Checklist

Revision: 3
Effective: Dec. 5, 2013

Technician/Date: MMP 10/13/2017 Samples to lab: 1630 Batch #: F710357
 Upload/Date: MMP 10/13/2017 Reviewer/Date: _____

- EFGS Preparation Method**
- FGS-032 Co-APDC
 - FGS-052 Oven Digestion (Total Recoverable Metals) ICPMS AFS
 - FGS-058 Nitric Digestion ICPMS CVAFS
 - FGS-084 Modified Aqua Regia (Ag, Sb only)
 - FGS-108 Cr+6 Sediments/Tissues
 - FGS-109 RP
 - FGS-111 HF Bomb Digestion ICPMS CVAFS
 - FGS-141 Nitric Bomb Digestion ICPMS CVAFS
 - FGS-145 Oven Digestion (As, Se Speciation) As Se
 - FGS-146 Microwave Digestion (Nutraceuticals)
 - FGS-146 Microwave Digestion (CPSC-Metal)
 - FGS-146 Microwave Digestion (CPSC-Non-Metal/Paint)
 - FGS-149 Oven Digestion (Aqueous Nutraceuticals)
 - NA Other:

Initials	SOP Date	DOC Date
<u>MMP</u>	<u>2/4/2017</u>	<u>12/23/2016</u>

Comments: _____

Conditionally formatted training files located at:
 \\us34file\General and Admin\Quality Assurance\Training\Training Master
 (Contact QA for any problems regarding these training files.)

Analytes: Hg

- | | | | | |
|--|----------------------|------------|--------------------|----------|
| | Reviewer
Initials | <u>MMP</u> | Tertiary
Review | <u>R</u> |
|--|----------------------|------------|--------------------|----------|
1. Is any SOP/DOC expiring within one week of Submission Date? YES NO
 - Data cannot be reported without a current IDOC/CDOC. If YES, notify supervisor and technician immediately.**
 2. Check prep method YES
 - (a) For Ceuticals: Is correct Hg code being used in LIMS? ICPMS CV-AFS 70:30 N/A
 3. Compare sample ID with benchsheet YES N/A
 4. Verify time of submission? (if not met please explain in the comments) YES N/A
 - (a) Oven bomb - digestion start time before 14:00? YES N/A
 - (b) Microwave - submitted to the lab before 16:00? YES N/A
 5. Check for transcription errors from benchsheet YES
 - (a) Check and compare initial and final volumes YES N/A
 - (b) Check and compare mass YES N/A
 - (c) Has the number of pills been documented (benchsheet and LIMS)? YES N/A
 - (d) Benchsheet prep date MUST match actual prep date YES N/A
 6. Samples per Batch? **Check QC Requirements** ≤ 20 ≤ 10
 - (a) PBs per batch? 3 PBs 2 PB 1 PB
 - (b) BS, BS/BSD or CRM in batch? BS BS/BSD CRM
 - (c) MS/MSD in batch? YES N/A
 - (d) MD in batch? YES N/A
 - (e) Client specific WO #'s: _____ YES N/A
 - (f) Are there any client specific requests and/or alterations? YES N/A
 - Document: _____
 - (g) Correct LIMS spike ID included for BS, BS/BSD and/or MS/MSD? YES N/A
 - (h) Correct 'source' designated for MD/MS/MSD? YES N/A
 - (i) For EFGS-filtered samples, was a filtration blank included? YES N/A
 7. Are the samples appropriately spiked? YES N/A
 - (a) Is the spike and amount used appropriate and entered into LIMS? YES N/A
 - (b) For IDOCs, was there a spike witness? (initials must be in logbook) YES N/A
 - (c) Spikes added: YES N/A

NOTE: Due to LIMS software constraints, new LIMS IDs need to be created when multiple/ supplemental spikes are used. Enter new LIMS ID below and use table to list all spikes included in it.

Spike LIMS ID : 1705879

Spike Name	LIMS ID	μL	Spike Name	LIMS ID	μL
<u>Pyrophosphate</u>	<u>1703595</u>	<u>50</u>			
<u>Pyrophosphate</u>	<u>1703596</u>	<u>50</u>			
<u>THg</u>	<u>1705876</u>	<u>50</u>			

PREPARATION BENCH SHEET

2000-2
10/18/17 BC
17

F710351

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710351-BLK1	Blank	0.5	50					50X -
F710351-BLK2	Blank	0.5	50					50X -
F710351-BS1	LCS	0.5	50	1705879	50			400X -
F710351-BSD1	LCS Dup	0.5	50	1705879	50			400X -
F710351-DUP1	Duplicate [1710458-01]	2.0436	50					50X -
F710351-MS1	Matrix Spike [1710458-01]	2.0093	50	1705879	50			400X -
F710351-MSD1	Matrix Spike Dup [1710458-01]	2.0268	50	1705879	50			400X -

Standard ID(s): 1705879
Description: EFGS-PREP SPIKE1/2, plus Hg

Expiration: 02-Jan-18 00:00

Reagent ID(s): 1705679
Description: Fisher Nitric Acid, Tracemetal Grade

Expiration: 15-Mar-19 00:00

50X = 1ml
400X = 125ul

1705610
1705611
1705961
1703182

Due Date: 10/19/2017

PREPARATION BENCH SHEET

2600-2
10/17/17 BC

F710351

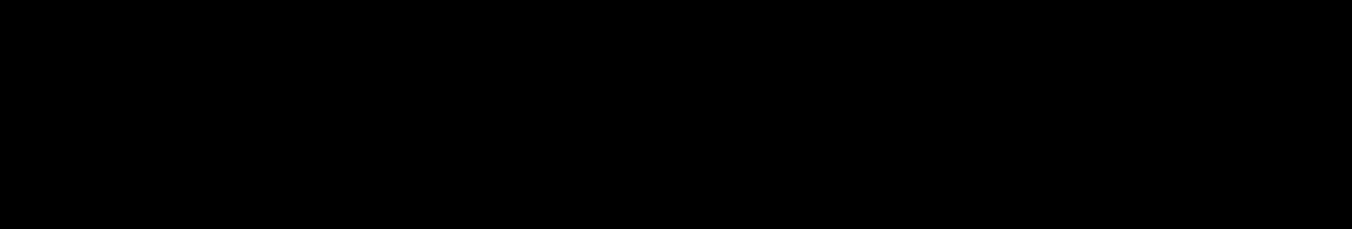
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710455-01	740-2017-10120001 EUUSBO2-00094885	2.04	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	SOX -
1710458-01	740-2017-10120002 EUUSBO2-00094886	2.0943	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	SOX -



Ceutical Digestions

Batch TM / Hg (circle one): F710349/351/334 Boiling Chip Lot # 2256A004

Batch continued on next page? Yes No

1° Tech.: MMR 2° Tech.: NA Date/Time In: 10/13/2017 1630

Date/Time Out: 10/14/2017 1030 by Timer

Spiked By: MMR Spike Witness (SW): W

Final Vol. (mL)/Initials/Date:

Balance ID/Cal.?(Y/N): 90 / 10/13/2017

50 MMR 10/16/2017

Digestion: Oven ID: OVN-02 Other ID: _____

Vial Type: 50 mL Centrifuge Tube Teflon

Analysis: ICP-MS CV-AFS

LC-ICP-MS Other: _____

Thermometer ID: 1312060130 Initial: Temp. (°C): 160 / 157.1 / 157.4
target raw corrected

Final: Temp. (°C): 160 / TIMER
target raw corrected

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (<input checked="" type="checkbox"/> g <input type="checkbox"/> mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
1	NA	X047	F710349-BUK1	D	0.5432	Ben Chips (BC)	/	
2	NA	X114	F710349-BUK2	D	0.6464	BC	/	
3	N4106	T4001	F710349-B51	D	0.6977	BC	/	
4	X196	X066	F710349-BSD1	D	0.7932	BC	/	
5	NA	N428	M10375-03	A	1.0572	Powder (P)	/	
6	NA	X106	M10375-03DUP1	A	1.0316	P	/	
7	NA	X069	M10375-03MS112	A	1.0054	P	/	
8	N459	N380	M10375-03MSD1	A	1.0447	P	/	
9	X142	N378	M10443-01	A	1.2988	Food (F)	/	

Initials: MMR

Spike Name	SW	Volume (µL)	LIMS ID	Pipette ID	Cal. Date
1 Prep Spike 1	<input checked="" type="checkbox"/>	50	M03595	512664	10/11/2017
3 Prep Spike 2	<input checked="" type="checkbox"/>	50	M03596		
TH ₂	<input checked="" type="checkbox"/>	50	M05878		
	<input type="checkbox"/>				
	<input type="checkbox"/>				

Preparation Method SOP: EFGS-141		
Reagent	Volume (mL)	LIMS ID
HNO ₃	7.5	M05679

1 Combined Spike ID: A-C = M05679 ; Batches: F710334/349/351
 2 Combined Spike ID: = ; Batches: _____

Batch continued on next page? Yes No

Ceutical Digestions

Batch (TM / Hg) (circle one): F710334/351 Boiling Chip Lot # 27569094

Batch continued on next page? Yes No

1° Tech.: _____ 2° Tech.: _____ Date/Time In: _____

Date/Time Out: _____

Spiked By: _____ Spike Witness (SW): _____

Final Vol. (mL)/Initials/Date: _____

Balance ID/Cal.? (Y/N): _____

Digestion: Oven ID: _____ Other ID: _____

Vial Type: 50 mL Centrifuge Tube Teflon

Analysis: ICP-MS CV-AFS
 LC-ICP-MS Other: _____

Thermometer ID: _____ Initial: Temp. (°C): _____
target raw corrected

Final: Temp. (°C): _____
target raw corrected

See Pg 197

MMP 10/13/2017

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (<input type="checkbox"/> g <input type="checkbox"/> mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
1	NA	TH016	F710334-BLX1	D	0.6022	Beal Chips (BL)	/	
2	NA	X073	F710334-BLX2	D	0.6963	BC	/	
3	NA	X075	F710334-BS1	D	0.6246	BC	/	
4	NA	N442	F710334-BSD1	D	0.5916	BC	/	
5	NA	X117	M10458-01	A	2.0943	Powder (P)	/	
6	N382	TH031	M10458-01DUP1	A	2.0436	P	/	
7	NA	X168	M10458-01MS1	A	2.0093	P	/	
8	NA	TH058	M10458-01MSD1	A	2.0268	P	/	
9	NA	N355	M10457-01	A	0.5502	0.1107	/	

See Pg 197

Initials: *MMP*

Spike Name	SW	Volume (µL)	LIMS ID	Pipette ID	Cal. Date
	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				

Preparation Method SOP: EFGS-		
Reagent	Volume (mL)	LIMS ID

1	Combined Spike ID: _____	=	_____	; Batches: _____
2	Combined Spike ID: _____	=	_____	; Batches: _____

Batch continued on next page? Yes No

Ceutical Digestions

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (<input type="checkbox"/> g <input type="checkbox"/> mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
10	NA	X111	1710457-01MSZ	A	0.6656	O	/	
11	NA	N432	1710452-01MSDZ	A	0.5821	O	/	
12	X165	X022	1709717-01RE1	B	1.2623	Food (F)	/	
13	NA	X181	1709717-02RE1	B	1.1042	F	/	
14	TH058	X179	1709717-03RE1	B	1.0494	F	/	Dry M/P 10/16/2017
15	NA	X006	1709717-04RE1	B	1.0970	F	/	
16	NA	N379	1709717-05	B	1.0420	F	/	
17	NA	N367	1709717-06RE1	B	1.0867	F	/	
18	NA	N424	1709717-07RE1	B	1.0337	F	/	
19	NA	N365	1709717-08RE1	B	1.1661	F	/	
20	TH036	TH056	1709761-06RE1	A	1.1411	1 cap.	/	
21	X188	N387	1709761-01RE1	A	0.9479	1 cap.	/	
22	NA	N390	1709778-01RE1	A	0.8742	1 cap.	/	
23	NA	TH021	1709780-03RE1	B	1.2636	F	/	
24	NA	X174	1710453-01	A	0.5158	Gel	/	Dry M/P 10/16/2017
25	NA	N459	1710455-01	A	2.0400	P	/	
26	NA	N416	1710459-01	A	0.5450	Cream (C)	/	
27	NA	X105	1710459-02	A	0.6186	C	/	
28	X192	TH005	1710459-03	A	0.5606	M/P 10/13/2017 Gel	/	
29	NA	X090	1710461-01	A	0.5830	C	/	
30								
31								
32								
33								
34								

Initials: M/P

Density by EFGS-019 Required? Yes No Batch ID: _____ Density = [(D-C)/B]

A: Sample ID / Flask ID	B: Volume (mL)	C: Flask mass (g)	D: Flask + sample (g)	Density (g/mL)
/				
/				
/				
/				

ANALYSIS SEQUENCE

QUALITY ASSURANCE
PEER-REVIEWED

7J18021

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R* 10/10/17
Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18021-IBL1 ✓	QC	1			
7J18021-IBL2 ✓	QC	2			
7J18021-IBL3 ✓	QC	3			
7J18021-CAL1 ✓	QC	4	1704505 ✓		
7J18021-CAL2 ✓	QC	5	1704506 ✓		
7J18021-CAL3 ✓	QC	6	1704507 ✓		
7J18021-CAL4 ✓	QC	7	1704508 ✓		
7J18021-CAL5 ✓	QC	8	1704509 ✓		
7J18021-ICV1 ✓	QC	9	1705628 ✓		
F710376-BLK1 ✓	QC	10			
F710376-BLK2 ✓	QC	11			
F710376-BLK3 ✓	QC	12			
F710376-BLK4 ✓	QC	13			
F710376-BLK5 ✓	QC	14			
F710376-BLK6 ✓	QC	15			
1710146-01 ✓	Hg-CVAFS-W-1631-WI DNR	16			
1710146-02 ✓	Hg-CVAFS-W-1631-WI DNR	17			
1710329-01 ✓	Hg-CVAFS-W-1631-WI DNR	18			
1710329-02 ✓	Hg-CVAFS-W-1631-WI DNR	19			
7J18021-CCV1 ✓	QC	20	1705628 ✓		
7J18021-CCB1 ✓	QC	21			
F710376-BS1 ✓	QC	22			
F710376-BSD1 ✓	QC	23			
F710376-DUP1 ✓	QC	24			
F710376-MS1 ✓	QC	25			
F710376-MSD1 ✓	QC	26			
7J18021-CCV2 ✓	QC	27	1705628 ✓		
7J18021-CCB2 ✓	QC	28			

Becky 10/18/17 *Becky* 10/18/17
 Samples Loaded By Date Data Processed By Date

10/17/17
2:00

Failing Data Report - 7J18021

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
-----------	----------	--------	-----	---------------	------------------	---------------	-------	--------	-------------	-------------	-----	--------------	----------	---------	-----------

Bre Cis 10/18/17
Analyst Reviewed By Date

PK 10/18/17
Peer Reviewed By Date

PREPARATION BENCH SHEET

F710376

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710376-BLK1	Blank	100	101					Source: 1710146-03
F710376-BLK2	Blank	100	101					Source: 1710146-03
F710376-BLK3	Blank	100	101					Source: 1710146-03
F710376-BLK4	Blank	100	101					Source: 1710329-03
F710376-BLK5	Blank	100	101					Source: 1710329-03
F710376-BLK6	Blank	100	101					Source: 1710329-03
F710376-BS1	LCS	50	50.5	1705054	100			
F710376-BSD1	LCS Dup	50	50.5	1705054	100			
F710376-DUP1	Duplicate [1710329-01] ✓	100	101					
F710376-MS1	Matrix Spike [1710329-01] ✓	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL ✓
F710376-MSD1	Matrix Spike Dup [1710329-01] ✓	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL ✓

<u>Standard ID(s):</u>	<u>Description:</u>
1704422	THg 10ng/mL Calibration Standard
1705054	Nist 1641D 200X

<u>Expiration:</u>
21-Oct-17 00:00
21-Aug-18 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705580	0.2 N BRCL SEPTEMBER 2017	14-Mar-18 00:00
1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
1705961	3% SnCl2 THg reductant	25-Mar-18 00:00

PREPARATION BENCH SHEET

F710376

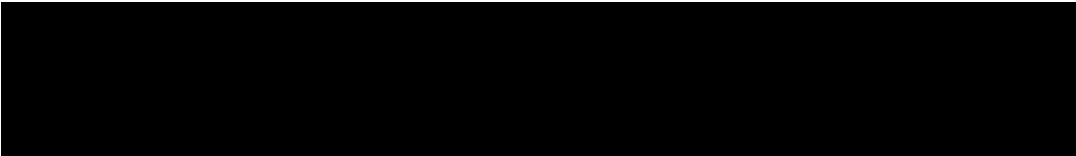
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710146-01	1710047-03 Monthly Effluent Mercury	100	101	-	-	-	Preservation Blank Created	
1710146-02	1710047-04 Monthly Effluent Mercury Blank	100	101	-	-	-	Preservation Blank Created	
1710329-01	1710150-01 Johnson Controls Outfall-Hg	100	101	-	-	-	Preservation Blank created	
1710329-02	1710150-02 Johnson Controls Outfall-Hg (Blank)	100	101	-	-	-	Preservation Blank created	



PREPARATION BENCH SHEET

2000-2
10/17/17 BC

F710376

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710376-BLK1	Blank	100	101					1710146-013 IX
F710376-BLK2	Blank	100	101					IX
F710376-BLK3	Blank	100	101					IX
F710376-BLK4	Blank	100	101					1710324-013 IX
F710376-BLK5	Blank	100	101					IX
F710376-BLK6	Blank	100	101					IX
F710376-BLK7	Blank	100	101					1710328
F710376-BLK8	Blank	100	101					
F710376-BLK9	Blank	100	101					
F710376-BS1	LCS	100	101	1705054	100			IX
F710376-BSD1	LCS Dup	100	101	1705054	100			IX
F710376-DUP1	Duplicate 1710329 01	100	101					IX
F710376-MS1	Matrix Spike 1710329 01	100	101	1704422	25			IX
F710376-MSD1	Matrix Spike Dup 1710329 01	100	101	1704422	25			IX

Standard ID(s): Description:

Expiration:

IX = 50 mL

1705610
1705611
1705461
1703102

PREPARATION BENCH SHEET

2600-2

10/17/17 BC

F710376

Eurofins Frontier Global Sciences, Inc.

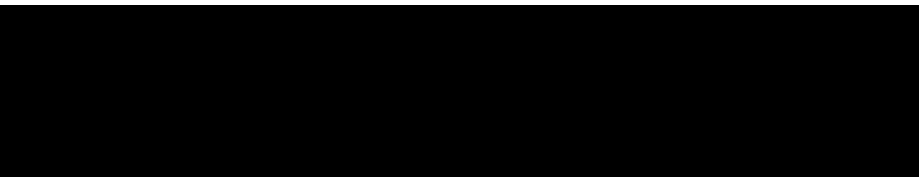
Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710146-01	1710047-03 Monthly Effluent Mercury	100	101	-	-	-	Preservation Blank Created	IX
1710146-02	1710047-04 Monthly Effluent Mercury Blank	100	101	-	-	-	Preservation Blank Created	IX
1710329-01	1710150-01 Johnson Controls Outfall-Hg	100	101	-	-	-	Preservation Blank created	IX
1710329-02	1710150-02 Johnson Controls Outfall-Hg (Blank)	100	101	-	-	-	Preservation Blank created	IX
1710388-01	1710188-01 Mayfair Semi-Annual	100	101	-	-	-	Preservation Blank Created	
1710388-02	1710188-02 Mayfair Semi-Annual - Blank	100	101	-	-	-	Preservation Blank Created	

010302
|
030206
|
010602
|



Total Mercury Preservation Logbook

cop 10/4/17

Initial preservation and/or verification

Technician: CSP Date: 10/4/17 Time Completed: 1730

Work Orders: ~~1710142~~ 1710142
1710143, 1710146

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1705580

Pipette SN: 507631

Cal. Date: 10/4/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710143-01A	300	3.00	y			
1710143-02A	300	3.00	y			
1710143-03A	300	3.00	y			
1710143-04A	300	3.00	y			
1710143-05A	300	3.00	y			
1710143-06A	300	3.00	y			
1710143-07A	300	3.00	y			
1710142-01A	300	3.00	y			
1710142-02A	300	3.00	y			
1710142-03A	300	3.00	y			
1710142-04A	300	3.00	y			
1710142-05B	10	10	y			
1710142-06A	300	3.00	y			
1710146-01A	300	3.00	y			
1710146-02A	300	3.00	y			
1710146-03A	300	3.00	y			
CSP 10/4/17						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
10/5/17 DM

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 10/11/17 Time Completed: 19:00

Work Orders: 1710328
1710324, 1710329, 1710276

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1705580

Pipette SN: 307631

Cal. Date: 10/9/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710325-24A	250	2.50	Y			
1710324-01A	250	2.50	Y			
1710329-01A	300	3.00	Y			
1710329-02A	300	3.00	Y			
1710329-03A	300	3.00	Y			
1710276-01A	600	6.00	Y			
1710276-02A	600	6.00+6.00	Y			
1710276-03A	600	6.00	Y			
<div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border: 1px solid black; transform: rotate(45deg); opacity: 0.5;"></div> <p style="font-size: 2em; font-weight: bold; margin: 0;">LM 10/11/17</p>						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
[Signature]

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J18019, 7J18020, 7J18021
Reviewer: 0 <i>PL 10/18/17</i>	Dataset ID(s): THg26002-171017-1
Date: 10/18/2017	WO (s) #: 0
Batch #(s): F710376, F710215, F710291, F710351	0

Analyst Initials BC Reviewer Initials PL 10/18/17

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF ($\leq 15\%$) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J18019, 7J18020, 7J18021
Reviewer: 0 <i>R 10/10/17</i>	Dataset ID(s): THg26002-171017-1
Date: 10/18/2017	WO (s) #: 0
Batch #(s): F710376, F710215, F710291, F710351	0

Analyst Initials BC **Reviewer Initials** R 10/10/17

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
- Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs**
- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/11/17, 1/27/17 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: 7/28/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: 7/28/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

Reviewed 11/02/2017
Elizabeth Penta
Wood. PLC

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709630

PO#

C012505850

October 21, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709630

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October 21, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-13_17HC001_091417_BLM_01_WB	1709630-01	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_02_WB	1709630-02	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_03_WB	1709630-03	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_04_WB	1709630-04	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_05_WB	1709630-05	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_06_WB	1709630-06	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_07_WB	1709630-07	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_08_WB	1709630-08	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_09_WB	1709630-09	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_10_WB	1709630-10	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_11_WB	1709630-11	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_12_WB	1709630-12	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_13_WB	1709630-13	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_14_WB	1709630-14	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_15_WB	1709630-15	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_16_WB	1709630-16	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_17_WB	1709630-17	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_18_WB	1709630-18	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_19_WB	1709630-19	Tissue	14-Sep-17 12:45	22-Sep-17 10:25
ES-13_17HC001_091417_BLM_20_WB	1709630-20	Tissue	14-Sep-17 12:45	22-Sep-17 10:25

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
21-Oct-17 16:40

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM. The samples were received intact, on-ice within two sealed coolers at -27.1 and -21.6 degrees Celsius.

Client requested Lipids Analysis by NOAA 1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches; F710291 and F710292. Sample 1709630-08 was used as the QC source in batch F710291. Sample 1709630-19 was used as the QC source in batch F710292. These samples were analyzed in two sequences; 7J18020 and 7J18016.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries.

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AMEC Foster Wheeler
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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

Client: AMSC Foster Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/23/17 Labeled By: CSG

Project: _____

Received By: LM Label Verified By: BC

of Coolers Received: 2 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>1709630</u>	CF: <u>1</u>	°C	Date/time: <u>9/22/17 10:25</u>	By: <u>LM</u>
Cooler 1: <u>-27.22</u>	w/CF: <u>-27.12</u>	°C	Cooler 4: _____	°C w/CF: _____
Cooler 2: <u>-21.73</u>	w/CF: <u>-21.63</u>	°C	Cooler 5: _____	°C w/CF: _____
Cooler 3: _____	w/CF: _____	°C	Cooler 6: _____	°C w/CF: _____

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	Y	
Preservation type:	Y	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4846 Cooler 2: 7878 1037 1884

1709630





AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_01_WB
1709630-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	80.3	0.386	3.45	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	
---------	------	-------	------	------	-----	---------	-----------	---------	-----------	-----------	--



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_02_WB
1709630-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	86.5	0.401	3.58	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_03_WB
1709630-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	48.4	0.416	3.72	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_04_WB
1709630-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	144	0.427	3.82	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_05_WB
1709630-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	71.9	0.404	3.61	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_06_WB
1709630-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	109	0.438	3.91	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_07_WB
1709630-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	110	0.419	3.75	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_08_WB
1709630-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	122	0.403	3.60	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_09_WB
1709630-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	106	0.404	3.61	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_10_WB
1709630-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	61.8	0.413	3.69	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

**ES-13_17HC001_091417_BLM_11_WB
1709630-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	80.5	0.415	3.70	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_12_WB
1709630-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	55.7	0.407	3.64	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_13_WB
1709630-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	86.4	0.393	3.51	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_14_WB
1709630-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	86.8	0.413	3.69	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_15_WB
1709630-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	125	0.432	3.86	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_16_WB
1709630-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	73.2	0.389	3.47	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_17_WB
1709630-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	111	0.441	3.94	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

**ES-13_17HC001_091417_BLM_18_WB
1709630-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	90.7	0.400	3.57	ng/g	100	F710291	10-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_19_WB
1709630-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	76.2	0.397	3.55	ng/g	100	F710292	10-Oct-17	7J18016	17-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

ES-13_17HC001_091417_BLM_20_WB
1709630-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	79.3	0.403	3.60	ng/g	100	F710292	10-Oct-17	7J18016	17-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J18016 - F710292											
Cal Standard (7J18016-CAL1)					Prepared & Analyzed: 17-Oct-17						
Mercury	0.531	-		ng/L	0.50100		106				
Cal Standard (7J18016-CAL2)					Prepared & Analyzed: 17-Oct-17						
Mercury	1.016	-		ng/L	1.0020		101				
Cal Standard (7J18016-CAL3)					Prepared & Analyzed: 17-Oct-17						
Mercury	5.014	-		ng/L	5.0100		100				
Cal Standard (7J18016-CAL4)					Prepared & Analyzed: 17-Oct-17						
Mercury	19.24	-		ng/L	20.040		96.0				
Cal Standard (7J18016-CAL5)					Prepared & Analyzed: 17-Oct-17						
Mercury	38.34	-		ng/L	40.080		95.7				
Calibration Blank (7J18016-CCB1)					Prepared & Analyzed: 17-Oct-17						
Mercury	0.031	-		ng/L							
Calibration Blank (7J18016-CCB2)					Prepared & Analyzed: 17-Oct-17						
Mercury	0.017	-		ng/L							
Calibration Blank (7J18016-CCB3)					Prepared & Analyzed: 17-Oct-17						
Mercury	0.017	-		ng/L							
Calibration Blank (7J18016-CCB4)					Prepared & Analyzed: 17-Oct-17						
Mercury	0.078	-		ng/L							
Calibration Blank (7J18016-CCB5)					Prepared & Analyzed: 17-Oct-17						
Mercury	0.135	-		ng/L							

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J18016 - F710292

Calibration Blank (7J18016-CCB6)												Prepared & Analyzed: 17-Oct-17
Mercury	0.088	-		ng/L								
Calibration Blank (7J18016-CCB7)												Prepared & Analyzed: 17-Oct-17
Mercury	0.124	-		ng/L								
Calibration Blank (7J18016-CCB8)												Prepared & Analyzed: 17-Oct-17
Mercury	0.095	-		ng/L								
Calibration Blank (7J18016-CCB9)												Prepared & Analyzed: 17-Oct-17
Mercury	0.132	-		ng/L								
Calibration Blank (7J18016-CCBA)												Prepared & Analyzed: 17-Oct-17
Mercury	0.158	-		ng/L								
Calibration Check (7J18016-CCV1)												Prepared & Analyzed: 17-Oct-17
Mercury	4.973	-		ng/L	5.0000		99.5	77-123				
Calibration Check (7J18016-CCV2)												Prepared & Analyzed: 17-Oct-17
Mercury	5.000	-		ng/L	5.0000		100	77-123				
Calibration Check (7J18016-CCV3)												Prepared & Analyzed: 17-Oct-17
Mercury	4.884	-		ng/L	5.0000		97.7	77-123				
Calibration Check (7J18016-CCV4)												Prepared & Analyzed: 17-Oct-17
Mercury	5.120	-		ng/L	5.0000		102	77-123				
Calibration Check (7J18016-CCV5)												Prepared & Analyzed: 17-Oct-17
Mercury	5.144	-		ng/L	5.0000		103	77-123				

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J18016 - F710292

Calibration Check (7J18016-CCV6)					Prepared & Analyzed: 17-Oct-17						
Mercury	4.966	-		ng/L	5.0000		99.3	77-123			
Calibration Check (7J18016-CCV7)					Prepared & Analyzed: 17-Oct-17						
Mercury	5.317	-		ng/L	5.0000		106	77-123			
Calibration Check (7J18016-CCV8)					Prepared & Analyzed: 17-Oct-17						
Mercury	5.088	-		ng/L	5.0000		102	77-123			
Calibration Check (7J18016-CCV9)					Prepared & Analyzed: 17-Oct-17						
Mercury	5.134	-		ng/L	5.0000		103	77-123			
Calibration Check (7J18016-CCVA)					Prepared & Analyzed: 17-Oct-17						
Mercury	5.234	-		ng/L	5.0000		105	77-123			
Instrument Blank (7J18016-IBL1)					Prepared & Analyzed: 17-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J18016-IBL2)					Prepared & Analyzed: 17-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J18016-IBL3)					Prepared & Analyzed: 17-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7J18016-ICV1)					Prepared & Analyzed: 17-Oct-17						
Mercury	4.992	-		ng/L	5.0000		99.8	79-121			

Batch 7J18020 - F710291

Cal Standard (7J18020-CAL1)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.498	-		ng/L	0.50100		99.5				

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Amy Goodall, Project Manager

AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 16:40
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J18020 - F710291											
Cal Standard (7J18020-CAL2)											
Mercury	1.042	-		ng/L	1.0020		104				Prepared: 17-Oct-17 Analyzed: 18-Oct-17
Cal Standard (7J18020-CAL3)											
Mercury	5.049	-		ng/L	5.0100		101				Prepared: 17-Oct-17 Analyzed: 18-Oct-17
Cal Standard (7J18020-CAL4)											
Mercury	19.83	-		ng/L	20.040		99.0				Prepared: 17-Oct-17 Analyzed: 18-Oct-17
Cal Standard (7J18020-CAL5)											
Mercury	38.38	-		ng/L	40.080		95.8				Prepared: 17-Oct-17 Analyzed: 18-Oct-17
Calibration Blank (7J18020-CCB1)											
Mercury	0.036	-		ng/L							Prepared: 17-Oct-17 Analyzed: 18-Oct-17
Calibration Blank (7J18020-CCB2)											
Mercury	0.051	-		ng/L							Prepared: 17-Oct-17 Analyzed: 18-Oct-17
Calibration Blank (7J18020-CCB3)											
Mercury	0.070	-		ng/L							Prepared: 17-Oct-17 Analyzed: 18-Oct-17
Calibration Blank (7J18020-CCB4)											
Mercury	0.053	-		ng/L							Prepared: 17-Oct-17 Analyzed: 18-Oct-17
Calibration Blank (7J18020-CCB5)											
Mercury	0.145	-		ng/L							Prepared: 17-Oct-17 Analyzed: 18-Oct-17
Calibration Blank (7J18020-CCB6)											
Mercury	0.085	-		ng/L							Prepared: 17-Oct-17 Analyzed: 18-Oct-17

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J18020 - F710291

Calibration Blank (7J18020-CCB7)											
Prepared: 17-Oct-17 Analyzed: 18-Oct-17											
Mercury	0.122	-		ng/L							
Calibration Blank (7J18020-CCB8)											
Prepared: 17-Oct-17 Analyzed: 18-Oct-17											
Mercury	0.155	-		ng/L							
Calibration Blank (7J18020-CCB9)											
Prepared: 17-Oct-17 Analyzed: 18-Oct-17											
Mercury	0.136	-		ng/L							
Calibration Check (7J18020-CCV1)											
Prepared: 17-Oct-17 Analyzed: 18-Oct-17											
Mercury	4.895	-		ng/L	5.0000		97.9	77-123			
Calibration Check (7J18020-CCV2)											
Prepared: 17-Oct-17 Analyzed: 18-Oct-17											
Mercury	5.022	-		ng/L	5.0000		100	77-123			
Calibration Check (7J18020-CCV3)											
Prepared: 17-Oct-17 Analyzed: 18-Oct-17											
Mercury	4.868	-		ng/L	5.0000		97.4	77-123			
Calibration Check (7J18020-CCV4)											
Prepared: 17-Oct-17 Analyzed: 18-Oct-17											
Mercury	5.199	-		ng/L	5.0000		104	77-123			
Calibration Check (7J18020-CCV5)											
Prepared: 17-Oct-17 Analyzed: 18-Oct-17											
Mercury	5.228	-		ng/L	5.0000		105	77-123			
Calibration Check (7J18020-CCV6)											
Prepared: 17-Oct-17 Analyzed: 18-Oct-17											
Mercury	4.961	-		ng/L	5.0000		99.2	77-123			
Calibration Check (7J18020-CCV7)											
Prepared: 17-Oct-17 Analyzed: 18-Oct-17											
Mercury	5.106	-		ng/L	5.0000		102	77-123			

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271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J18020 - F710291

Calibration Check (7J18020-CCV8)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.130	-		ng/L	5.0000		103	77-123			
Calibration Check (7J18020-CCV9)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.090	-		ng/L	5.0000		102	77-123			
Instrument Blank (7J18020-IBL1)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J18020-IBL2)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J18020-IBL3)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7J18020-ICV1)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.020	-		ng/L	5.0000		100	79-121			

Batch F710291 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710291-BLK1)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.308	0.090	0.800	ng/g							J
Blank (F710291-BLK2)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.176	0.090	0.800	ng/g							J
Blank (F710291-BLK3)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.197	0.090	0.800	ng/g							J

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710291 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710291-BLK4)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.075	0.671	ng/g							F-03, U
Blank (F710291-BLK5)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.076	0.678	ng/g							F-03, U
LCS (F710291-BS1)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	8.345	0.090	0.800	ng/g	8.0160		104	75-125			
LCS (F710291-BS2)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	370.7	3.45	30.8	ng/g	373.70		99.2	75-125			
LCS Dup (F710291-BSD1)					Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	8.558	0.090	0.800	ng/g	8.0160		107	75-125	2.52	24	
Duplicate (F710291-DUP1)					Source: 1709629-19 Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	73.64	0.400	3.57	ng/g		72.02			2.22	24	
Matrix Spike (F710291-MS1)					Source: 1709629-19 Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	427.8	1.54	13.7	ng/g	343.64	72.02	104	71-125			
Matrix Spike (F710291-MS2)					Source: 1709630-08 Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	469.6	1.72	15.3	ng/g	383.14	121.7	90.8	71-125			
Matrix Spike Dup (F710291-MSD1)					Source: 1709629-19 Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	402.4	1.64	14.6	ng/g	364.96	72.02	90.5	71-125	13.4	24	
Matrix Spike Dup (F710291-MSD2)					Source: 1709630-08 Prepared: 10-Oct-17 Analyzed: 18-Oct-17						
Mercury	428.9	1.57	14.0	ng/g	350.88	121.7	87.6	71-125	3.65	24	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 16:40
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710292 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710292-BLK1)					Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	0.379	0.090	0.800	ng/g							J
Blank (F710292-BLK2)					Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	0.256	0.090	0.800	ng/g							J
Blank (F710292-BLK3)					Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	0.187	0.090	0.800	ng/g							J
LCS (F710292-BS1)					Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	8.662	0.090	0.800	ng/g	8.0160		108	75-125			
LCS (F710292-BS2)					Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	365.0	3.53	31.5	ng/g	373.70		97.7	75-125			
LCS Dup (F710292-BSD1)					Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	8.074	0.090	0.800	ng/g	8.0160		101	75-125	7.02	24	
Duplicate (F710292-DUP1)					Source: 1709630-19 Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	66.80	0.423	3.77	ng/g		76.20			13.1	24	
Matrix Spike (F710292-MS1)					Source: 1709630-19 Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	413.2	1.59	14.2	ng/g	354.61	76.20	95.0	71-125			
Matrix Spike (F710292-MS2)					Source: 1709631-13 Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	419.0	1.58	14.1	ng/g	352.11	85.88	94.6	71-125			
Matrix Spike Dup (F710292-MSD1)					Source: 1709630-19 Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	430.8	1.65	14.8	ng/g	369.00	76.20	96.1	71-125	1.11	24	



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 16:40
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710292 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F710292-MSD2)		Source: 1709631-13				Prepared: 10-Oct-17	Analyzed: 17-Oct-17				
Mercury	432.4	1.67	14.9	ng/g	371.75	85.88	93.2	71-125	1.50	24	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:40

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26002-171017-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 18, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7J18019, 7J18020, 7J18021

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	97.99 units	195.98	89.05 units	178.11	99.7 %Rec
SEQ-CAL2	1	1.00 ng/L	195.16 units	195.16	186.22 units	186.22	104.2 %Rec
SEQ-CAL3	1	5.00 ng/L	910.96 units	182.19	902.02 units	180.40	101.0 %Rec
SEQ-CAL4	1	20.00 ng/L	3552.62 units	177.63	3543.68 units	177.18	99.2 %Rec
SEQ-CAL5	1	40.00 ng/L	6865.94 units	171.65	6857.00 units	171.43	95.9 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
178.67	+/- 5.36	3.0% RSD	184.52

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	8.94 units	±1.62	0.05 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	6	-0.002 ng/L	±0.008
BLK	2	3	1.747 ng/L	±0.575
BLK	3	3	2.840 ng/L	±0.886
BLK	4	2	7.802 ng/L	±3.016
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: p 10/19/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	CAL	SEQ-IBL1	1	10/18/2017 8:48:34	87447-1.RAW	8:48:34 AM	10.80			1.9	0.010	0.010	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	10/18/2017 8:52:43	87448-1.RAW	8:52:43 AM	8.09			-0.8	-0.005	-0.005	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	10/18/2017 8:56:51	87449-1.RAW	8:56:51 AM	7.92			-1.0	-0.006	-0.006	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	10/18/2017 9:01:00	87450-1.RAW	9:01:00 AM	97.99			89.1	0.498	0.498	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	10/18/2017 9:05:08	87451-1.RAW	9:05:08 AM	195.16			186.2	1.042	1.042	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	10/18/2017 9:09:17	87452-1.RAW	9:09:17 AM	910.96			902.0	5.049	5.049	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	10/18/2017 9:13:25	87453-1.RAW	9:13:25 AM	3552.62			3543.7	19.834	19.834	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	10/18/2017 9:17:34	87454-1.RAW	9:17:34 AM	6865.94			6857.0	38.378	38.378	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	10/18/2017 9:21:42	87455-1.RAW	9:21:42 AM	905.88			896.9	5.020	5.020	ng/L	
Hg2600-3	BC	SAM	WS	1	10/18/2017 9:39:08	87456-1.RAW	9:39:08 AM	46.72		x	37.8	0.211	0.000	ng/L	
Hg2600-3	BC	BLK	F710376-BLK1	1	10/18/2017 9:43:17	87457-1.RAW	9:43:17 AM	8.83	1	x	-0.1	-0.001	-0.001	ng/L	
Hg2600-3	BC	BLK	F710376-BLK2	1	10/18/2017 9:47:25	87458-1.RAW	9:47:25 AM	8.79	1	x	-0.1	-0.001	-0.001	ng/L	
Hg2600-3	BC	BLK	F710376-BLK3	1	10/18/2017 9:51:34	87459-1.RAW	9:51:34 AM	10.89	1	x	2.0	0.011	0.011	ng/L	
Hg2600-3	BC	BLK	F710376-BLK4	1	10/18/2017 9:55:42	87460-1.RAW	9:55:42 AM	6.34	1	x	-2.6	-0.015	-0.015	ng/L	
Hg2600-3	BC	BLK	F710376-BLK5	1	10/18/2017 9:59:51	87461-1.RAW	9:59:51 AM	8.60	1	x	-0.3	-0.002	-0.002	ng/L	
Hg2600-3	BC	BLK	F710376-BLK6	1	10/18/2017 10:03:59	87462-1.RAW	10:03:59 AM	8.32	1	x	-0.6	-0.003	-0.003	ng/L	
Hg2600-3	BC	SAM	1710146-01	1	10/18/2017 10:08:08	87463-1.RAW	10:08:08 AM	93.25	1	x	84.3	0.472	0.472	ng/L	
Hg2600-3	BC	SAM	1710146-02	1	10/18/2017 10:12:16	87464-1.RAW	10:12:16 AM	16.05	1	x	7.1	0.040	0.040	ng/L	
Hg2600-3	BC	SAM	1710329-01	1	10/18/2017 10:16:25	87465-1.RAW	10:16:25 AM	332.89	1	x	323.9	1.813	1.813	ng/L	
Hg2600-3	BC	SAM	1710329-02	1	10/18/2017 10:20:33	87466-1.RAW	10:20:33 AM	13.26	1	x	4.3	0.024	0.024	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	10/18/2017 10:24:41	87467-1.RAW	10:24:41 AM	883.51			874.6	4.895	4.895	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	10/18/2017 10:28:50	87468-1.RAW	10:28:50 AM	15.31			6.4	0.036	0.036	ng/L	
Hg2600-3	BC	SAM	F710376-BS1	1	10/18/2017 10:32:58	87469-1.RAW	10:32:58 AM	2742.19	1	x	2733.3	15.298	15.298	ng/L	
Hg2600-3	BC	SAM	F710376-BSD1	1	10/18/2017 10:37:07	87470-1.RAW	10:37:07 AM	2897.31	1	x	2888.4	16.166	16.166	ng/L	
Hg2600-3	BC	SAM	F710376-DUP1	1	10/18/2017 10:41:15	87471-1.RAW	10:41:15 AM	342.88	1	x	333.9	1.869	1.869	ng/L	
Hg2600-3	BC	SAM	F710376-MS1	1	10/18/2017 10:45:24	87472-1.RAW	10:45:24 AM	1204.78	1	x	1195.8	6.693	6.693	ng/L	
Hg2600-3	BC	SAM	F710376-MSD1	1	10/18/2017 10:49:32	87473-1.RAW	10:49:32 AM	1218.64	1	x	1209.7	6.771	6.771	ng/L	
Hg2600-3	BC	SAM	ws	20	10/18/2017 10:53:41	87474-1.RAW	10:53:41 AM	936.17		x	927.2	5.190	103.794	ng/L	
Hg2600-3	BC	SAM	ws	20	10/18/2017 10:57:49	87475-1.RAW	10:57:49 AM	3494.33		x	3485.4	19.508	390.153	ng/L	
Hg2600-3	BC	BLK	F710215-BLK3	20	10/18/2017 11:03:44	87476-2.RAW	11:03:44 AM	30.01	2		21.1	0.118	2.358	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK4	20	10/18/2017 11:07:53	87477-1.RAW	11:07:53 AM	27.90	2		19.0	0.019	0.375	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK5	20	10/18/2017 11:12:01	87478-1.RAW	11:12:01 AM	20.34	2		11.4	-0.024	-0.470	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	10/18/2017 11:16:10	87479-1.RAW	11:16:10 AM	906.16			897.2	5.022	5.022	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	10/18/2017 11:20:18	87480-1.RAW	11:20:18 AM	18.09			9.1	0.051	0.051	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK6	20	10/18/2017 11:24:27	87481-1.RAW	11:24:27 AM	18.25	2		9.3	-0.035	-0.704	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK7	20	10/18/2017 11:28:35	87482-1.RAW	11:28:35 AM	15.07	2		6.1	-0.053	-1.060	ng/L	
Hg2600-3	BC	BLK	F710215-BLK1	20	10/18/2017 11:32:43	87483-1.RAW	11:32:43 AM	23.82	2		14.9	0.083	1.666	ng/L	
Hg2600-3	BC	BLK	F710215-BLK2	20	10/18/2017 11:36:52	87484-1.RAW	11:36:52 AM	19.81	2		10.9	0.061	1.217	ng/L	
Hg2600-3	BC	SAM	F710215-BS1	20	10/18/2017 11:41:00	87485-1.RAW	11:41:00 AM	900.71	2		891.8	4.904	98.078	ng/L	
Hg2600-3	BC	SAM	F710215-BSD1	20	10/18/2017 11:45:09	87486-1.RAW	11:45:09 AM	949.16	2		940.2	5.175	103.501	ng/L	
Hg2600-3	BC	SAM	F710215-BS2	400	10/18/2017 11:49:17	87487-1.RAW	11:49:17 AM	971.90	2		963.0	5.385	2154.121	ng/L	
Hg2600-3	BC	SAM	1709619-06	100	10/18/2017 11:53:26	87488-1.RAW	11:53:26 AM	1926.50	2		1917.6	10.715	1071.505	ng/L	
Hg2600-3	BC	SAM	1709619-07	100	10/18/2017 11:57:34	87489-1.RAW	11:57:34 AM	1633.34	2		1624.4	9.074	907.427	ng/L	
Hg2600-3	BC	SAM	1709619-08	100	10/18/2017 12:01:43	87490-1.RAW	12:01:43 PM	1835.83	2		1826.9	10.208	1020.759	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	10/18/2017 12:05:51	87491-1.RAW	12:05:51 PM	878.64			869.7	4.868	4.868	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	10/18/2017 12:09:59	87492-1.RAW	12:09:59 PM	21.49			12.6	0.070	0.070	ng/L	
Hg2600-3	BC	SAM	1709619-09	100	10/18/2017 12:14:08	87493-1.RAW	12:14:08 PM	1680.62	2		1671.7	9.339	933.891	ng/L	
Hg2600-3	BC	SAM	1709619-10	100	10/18/2017 12:18:16	87494-1.RAW	12:18:16 PM	1737.63	2		1728.7	9.658	965.797	ng/L	
Hg2600-3	BC	SAM	1709619-11	100	10/18/2017 12:22:25	87495-1.RAW	12:22:25 PM	1815.57	2		1806.6	10.094	1009.418	ng/L	
Hg2600-3	BC	SAM	1709619-12	100	10/18/2017 12:26:33	87496-1.RAW	12:26:33 PM	1881.97	2		1873.0	10.466	1046.582	ng/L	
Hg2600-3	BC	SAM	1709619-13	100	10/18/2017 12:30:42	87497-1.RAW	12:30:42 PM	1852.77	2		1843.8	10.302	1030.241	ng/L	
Hg2600-3	BC	SAM	1709619-14	100	10/18/2017 12:34:50	87498-1.RAW	12:34:50 PM	1987.76	2		1978.8	11.058	1105.791	ng/L	
Hg2600-3	BC	SAM	1709619-15	100	10/18/2017 12:38:59	87499-1.RAW	12:38:59 PM	1820.77	2		1811.8	10.123	1012.331	ng/L	
Hg2600-3	BC	SAM	1709619-16	100	10/18/2017 12:43:07	87500-1.RAW	12:43:07 PM	1534.09	2		1525.2	8.519	851.878	ng/L	
Hg2600-3	BC	SAM	1709619-17	100	10/18/2017 12:47:15	87501-1.RAW	12:47:15 PM	1585.61	2		1576.7	8.807	880.711	ng/L	
Hg2600-3	BC	SAM	1709619-18	100	10/18/2017 12:51:24	87502-1.RAW	12:51:24 PM	1692.12	2		1683.2	9.403	940.325	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	10/18/2017 12:55:32	87503-1.RAW	12:55:32 PM	937.83			928.9	5.199	5.199	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	CAL	SEQ-CCB4	1	10/18/2017 12:59:41	87504-1.RAW	12:59:41 PM	18.47			9.5	0.053	0.053	ng/L	
Hg2600-3	BC	SAM	1709619-19	100	10/18/2017 13:03:49	87505-1.RAW	1:03:49 PM	1754.58	2		1745.6	9.753	975.282	ng/L	
Hg2600-3	BC	SAM	1709619-20	100	10/18/2017 13:07:58	87506-1.RAW	1:07:58 PM	1477.18	2		1468.2	8.200	820.021	ng/L	
Hg2600-3	BC	SAM	1709620-01	100	10/18/2017 13:12:06	87507-1.RAW	1:12:06 PM	1178.13	2		1169.2	6.526	652.647	ng/L	
Hg2600-3	BC	SAM	1709620-02	100	10/18/2017 13:16:15	87508-1.RAW	1:16:15 PM	3271.75	2		3262.8	18.244	1824.440	ng/L	
Hg2600-3	BC	SAM	1709620-03	100	10/18/2017 13:20:23	87509-1.RAW	1:20:23 PM	4188.28	2		4179.3	23.374	2337.414	ng/L	
Hg2600-3	BC	SAM	1709620-04	100	10/18/2017 13:24:31	87510-1.RAW	1:24:31 PM	2545.18	2		2536.2	14.178	1417.780	ng/L	
Hg2600-3	BC	SAM	1709620-07	100	10/18/2017 13:28:40	87511-1.RAW	1:28:40 PM	2954.67	2		2945.7	16.470	1646.972	ng/L	
Hg2600-3	BC	SAM	F710215-DUP1	100	10/18/2017 13:32:48	87512-1.RAW	1:32:48 PM	1789.30	2		1780.4	9.947	994.714	ng/L	
Hg2600-3	BC	SAM	F710215-MS1	400	10/18/2017 13:36:57	87513-1.RAW	1:36:57 PM	2529.76	2		2520.8	14.105	5641.839	ng/L	
Hg2600-3	BC	SAM	F710215-MSD1	400	10/18/2017 13:41:05	87514-1.RAW	1:41:05 PM	2536.27247	2		2527.3	14.141	5656.417	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	10/18/2017 13:45:14	87515-1.RAW	1:45:14 PM	942.94			934.0	5.228	5.228	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	10/18/2017 13:49:22	87516-1.RAW	1:49:22 PM	34.80			25.9	0.145	0.145	ng/L	
Hg2600-3	BC	SAM	F710215-MS2	400	10/18/2017 13:53:30	87517-1.RAW	1:53:30 PM	2539.67	2		2530.7	14.160	5664.025	ng/L	
Hg2600-3	BC	SAM	F710215-MSD2	400	10/18/2017 13:57:39	87518-1.RAW	1:57:39 PM	2706.28	2		2697.3	15.093	6037.038	ng/L	
Hg2600-3	BC	BLK	F710291-BLK1	20	10/18/2017 14:01:47	87519-1.RAW	2:01:47 PM	43.35	3		34.4	0.193	3.852	ng/L	
Hg2600-3	BC	BLK	F710291-BLK2	20	10/18/2017 14:05:56	87520-1.RAW	2:05:56 PM	28.60	3		19.7	0.110	2.200	ng/L	
Hg2600-3	BC	BLK	F710291-BLK3	20	10/18/2017 14:10:04	87521-1.RAW	2:10:04 PM	30.99	3		22.1	0.123	2.468	ng/L	
Hg2600-3	BC	SAM	*F710291-BLK4	20	10/18/2017 14:14:13	87522-1.RAW	2:14:13 PM	24.55	3		15.6	-0.055	-1.092	ng/L	
Hg2600-3	BC	SAM	*F710291-BLK5	20	10/18/2017 14:18:21	87523-1.RAW	2:18:21 PM	24.83	3		15.9	-0.053	-1.061	ng/L	
Hg2600-3	BC	SAM	WS	100	10/18/2017 14:22:30	87524-1.RAW	2:22:30 PM	875.97	x		867.0	4.853	485.276	ng/L	
Hg2600-3	BC	SAM	F710291-BS1	20	10/18/2017 14:26:38	87525-1.RAW	2:26:38 PM	966.14	3		957.2	5.215	104.309	ng/L	
Hg2600-3	BC	SAM	F710291-BSD1	20	10/18/2017 14:30:46	87526-1.RAW	2:30:46 PM	989.96	3		981.0	5.349	106.975	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	10/18/2017 14:34:55	87527-1.RAW	2:34:55 PM	895.36			886.4	4.961	4.961	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	10/18/2017 14:39:03	87528-1.RAW	2:39:03 PM	24.04			15.1	0.085	0.085	ng/L	
Hg2600-3	BC	SAM	1709629-19	100	10/18/2017 14:44:22	87529-2.RAW	2:44:22 PM	1809.16	3		1800.2	10.047	1004.737	ng/L	
Hg2600-3	BC	SAM	F710291-BS2	400	10/18/2017 14:48:30	87530-1.RAW	2:48:30 PM	1084.89	3		1076.0	6.015	2405.990	ng/L	
Hg2600-3	BC	SAM	1709629-20	100	10/18/2017 14:52:39	87531-1.RAW	2:52:39 PM	2421.15	3		2412.2	13.473	1347.269	ng/L	
Hg2600-3	BC	SAM	1709630-01	100	10/18/2017 14:56:47	87532-1.RAW	2:56:47 PM	2094.50	3		2085.6	11.644	1164.444	ng/L	
Hg2600-3	BC	SAM	1709630-02	100	10/18/2017 15:00:56	87533-1.RAW	3:00:56 PM	2169.65	3		2160.7	12.065	1206.504	ng/L	
Hg2600-3	BC	SAM	1709630-03	100	10/18/2017 15:05:04	87534-1.RAW	3:05:04 PM	1177.18	3		1168.2	6.510	651.020	ng/L	
Hg2600-3	BC	SAM	1709630-04	100	10/18/2017 15:09:12	87535-1.RAW	3:09:12 PM	3392.02	3		3383.1	18.907	1890.658	ng/L	
Hg2600-3	BC	SAM	1709630-05	100	10/18/2017 15:13:21	87536-1.RAW	3:13:21 PM	1792.48	3		1783.5	9.954	995.404	ng/L	
Hg2600-3	BC	SAM	1709630-06	100	10/18/2017 15:17:29	87537-1.RAW	3:17:29 PM	2507.07	3		2498.1	13.954	1395.358	ng/L	
Hg2600-3	BC	SAM	1709630-07	100	10/18/2017 15:21:38	87538-1.RAW	3:21:38 PM	2625.83	3		2616.9	14.618	1461.828	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	10/18/2017 15:25:46	87539-1.RAW	3:25:46 PM	921.29			912.4	5.106	5.106	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	10/18/2017 15:29:55	87540-1.RAW	3:29:55 PM	30.69			21.7	0.122	0.122	ng/L	
Hg2600-3	BC	SAM	1709630-08	100	10/18/2017 15:34:03	87541-1.RAW	3:34:03 PM	3035.66	3		3026.7	16.912	1691.207	ng/L	
Hg2600-3	BC	SAM	1709630-09	100	10/18/2017 15:38:12	87542-1.RAW	3:38:12 PM	2627.13	3		2618.2	14.626	1462.551	ng/L	
Hg2600-3	BC	SAM	1709630-10	100	10/18/2017 15:42:20	87543-1.RAW	3:42:20 PM	1511.24	3		1502.3	8.380	837.996	ng/L	
Hg2600-3	BC	SAM	1709630-11	100	10/18/2017 15:46:28	87544-1.RAW	3:46:28 PM	1954.56	3		1945.6	10.861	1086.118	ng/L	
Hg2600-3	BC	SAM	1709630-12	100	10/18/2017 15:50:36	87545-1.RAW	3:50:36 PM	1382.72	3		1373.8	7.661	766.064	ng/L	
Hg2600-3	BC	SAM	1709630-13	100	10/18/2017 15:54:44	87546-1.RAW	3:54:44 PM	2213.58	3		2204.6	12.311	1231.093	ng/L	
Hg2600-3	BC	SAM	1709630-14	100	10/18/2017 15:58:52	87547-1.RAW	3:58:52 PM	2114.21	3		2105.3	11.755	1175.471	ng/L	
Hg2600-3	BC	SAM	1709630-15	100	10/18/2017 16:03:01	87548-1.RAW	4:03:01 PM	2911.77	3		2902.8	16.219	1621.866	ng/L	
Hg2600-3	BC	SAM	1709630-16	100	10/18/2017 16:07:09	87549-1.RAW	4:07:09 PM	1897.84	3		1888.9	10.544	1054.373	ng/L	
Hg2600-3	BC	SAM	1709630-17	100	10/18/2017 16:11:17	87550-1.RAW	4:11:17 PM	2532.17	3		2523.2	14.094	1409.406	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	10/18/2017 16:15:26	87551-1.RAW	4:15:26 PM	925.45			916.5	5.130	5.130	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8	1	10/18/2017 16:19:34	87552-1.RAW	4:19:34 PM	36.62			27.7	0.155	0.155	ng/L	
Hg2600-3	BC	SAM	1709630-18	100	10/18/2017 16:23:43	87553-1.RAW	4:23:43 PM	2282.15	3		2273.2	12.695	1269.470	ng/L	
Hg2600-3	BC	SAM	F710291-DUP1	100	10/18/2017 16:27:51	87554-1.RAW	4:27:51 PM	1856.10	3		1847.2	10.310	1031.010	ng/L	
Hg2600-3	BC	SAM	F710291-MS1	400	10/18/2017 16:31:59	87555-1.RAW	4:31:59 PM	2790.65	3		2781.7	15.562	6224.819	ng/L	
Hg2600-3	BC	SAM	F710291-MSD1	400	10/18/2017 16:36:08	87556-1.RAW	4:36:08 PM	2472.94	3		2464.0	13.784	5513.544	ng/L	
Hg2600-3	BC	SAM	F710291-MS2	400	10/18/2017 16:40:16	87557-1.RAW	4:40:16 PM	2747.46	3		2738.5	15.320	6128.137	ng/L	
Hg2600-3	BC	SAM	F710291-MSD2	400	10/18/2017 16:44:25	87558-1.RAW	4:44:25 PM	2740.02	3		2731.1	15.279	6111.467	ng/L	
Hg2600-3	BC	BLK	F710351-BLK1	50	10/18/2017 16:48:33	87559-1.RAW	4:48:33 PM	44.44	4		35.5	0.199	9.935	ng/L	
Hg2600-3	BC	BLK	F710351-BLK2	50	10/18/2017 16:52:41	87560-1.RAW	4:52:41 PM	29.20	4		20.3	0.113	5.670	ng/L	
Hg2600-3	BC	SAM	F710351-BS1	400	10/18/2017 16:56:50	87561-1.RAW	4:56:50 PM	1320.63	4		1311.7	7.322	2928.797	ng/L	
Hg2600-3	BC	SAM	F710351-BSD1	400	10/18/2017 17:00:58	87562-1.RAW	5:00:58 PM	1098.62	4		1089.7	6.079	2431.770	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV9	1	10/18/2017 17:05:07	87563-1.RAW	5:05:07 PM	918.40			909.5	5.090	5.090	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB9	1	10/18/2017 17:09:15	87564-1.RAW	5:09:15 PM	33.31			24.4	0.136	0.136	ng/L	
Hg2600-3	BC	SAM	1710455-01	50	10/18/2017 17:13:24	87565-1.RAW	5:13:24 PM	25.53	4		16.6	-0.063	-3.159	ng/L	
Hg2600-3	BC	SAM	1710458-01	50	10/18/2017 17:17:32	87566-1.RAW	5:17:32 PM	23.05	4		14.1	-0.077	-3.854	ng/L	
Hg2600-3	BC	SAM	F710351-DUP1	50	10/18/2017 17:21:40	87567-1.RAW	5:21:40 PM	16.89	4		8.0	-0.112	-5.577	ng/L	
Hg2600-3	BC	SAM	F710351-MS1	400	10/18/2017 17:25:49	87568-1.RAW	5:25:49 PM	1296.98	4		1288.0	7.190	2875.856	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	SAM	F710351-MSD1	400	10/18/2017 17:29:57	87569-1.RAW	5:29:57 PM	1232.58	4		1223.6	6.829	2731.670	ng/L	
Hg2600-3	BC	CAL	SEQ-CCVA	1	10/18/2017 17:34:06	87570-1.RAW	5:34:06 PM	918.05			909.1	5.088	5.088	ng/L	
Hg2600-3	BC	CAL	SEQ-CCBA	1	10/18/2017 17:38:14	87571-1.RAW	5:38:14 PM	28.53			19.6	0.110	0.110	ng/L	

TotalMercury EPA1631
 Operati BC BlankSi 8.9373 Calib Eqn: Conc = (Area-8.937 Run Date: ##### Blank SD: 1.619207196
 Worksh THg260(CalibFa 178.67 Status: QC Warnings:11/QC Run Time: 14:40:13 Blank RSD%: 18.11738586
 Method ##### R: 0.9999 R2: 0.9997 CF SD: 5.361978241
 Descrip THg26002-171017-1 CF RSD%: 3.001081205

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean				0.00	3.37					87442-1.RAW	8:29:09	601.91	Clean	OK	1	
clean				0.00	0.02					87443-1.RAW	8:32:01	4.33	Clean	OK	1	
ws				8.94	0.00					87444-1.RAW	8:36:09	9.38	Sample	OK	1	
ws				8.94	0.00					87445-1.RAW	8:40:17	6.19	Sample	OK	1	
ws				8.94	0.00					87446-1.RAW	8:44:26	6.02	Sample	OK	1	
SEQ-IBL1	A1		1	0.00	0.06					87447-1.RAW	8:48:34	10.80	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.05					87448-1.RAW	8:52:43	8.09	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.04					87449-1.RAW	8:56:51	7.92	Sample	OK	1	
SEQ-CAL1	A4		1	8.94	0.50			99.69		87450-1.RAW	9:01:00	97.99	Sample	OK	1	
SEQ-CAL2	A5		1	8.94	1.04			104.23		87451-1.RAW	9:05:08	195.16	Sample	OK	1	
SEQ-CAL3	A6		1	8.94	5.05			100.97		87452-1.RAW	9:09:17	910.96	Sample	OK	1	
SEQ-CAL4	A7		1	8.94	19.83			99.17		87453-1.RAW	9:13:25	3552.62	Sample	OK	1	
SEQ-CAL5	A8		1	8.94	38.38			95.95		87454-1.RAW	9:17:34	6865.94	Sample	OK	1	
SEQ-ICV1	A9		1	8.94	5.02			100.40		87455-1.RAW	9:21:42	905.88	Sample	OK	1	
WS				8.94	0.21					87456-1.RAW	9:39:08	46.72	Sample	OK	1	
F710376-BLK1	A10		1	8.94	0.00					87457-1.RAW	9:43:17	8.83	Sample	OK	1	
F710376-BLK2	A11		1	8.94	0.00					87458-1.RAW	9:47:25	8.79	Sample	OK	1	
F710376-BLK3	A12		1	8.94	0.01					87459-1.RAW	9:51:34	10.89	Sample	OK	1	
F710376-BLK4	A13		1	8.94	0.00					87460-1.RAW	9:55:42	6.34	Sample	OK	1	
F710376-BLK5	A14		1	8.94	0.00					87461-1.RAW	9:59:51	8.60	Sample	OK	1	
F710376-BLK6	A15		1	8.94	0.00					87462-1.RAW	10:03:59	8.32	Sample	OK	1	
1710146-01	A16		1	8.94	0.47					87463-1.RAW	10:08:08	93.25	Sample	OK	1	
1710146-02	A17		1	8.94	0.04					87464-1.RAW	10:12:16	16.05	Sample	OK	1	
1710329-01	A18		1	8.94	1.81					87465-1.RAW	10:16:25	332.89	Sample	OK	1	
1710329-02	A19		1	8.94	0.02					87466-1.RAW	10:20:33	13.26	Sample	OK	1	
SEQ-CCV1	A20		1	8.94	4.89			97.90		87467-1.RAW	10:24:41	883.51	Sample	OK	1	
SEQ-CCB1	A21		1	8.94	0.04			0.00		87468-1.RAW	10:28:50	15.31	Sample	OK	1	
F710376-BS1	B1		1	8.94	15.30					87469-1.RAW	10:32:58	2742.19	Sample	OK	1	
F710376-BSD1	B2		1	8.94	16.17					87470-1.RAW	10:37:07	2897.31	Sample	OK	1	
F710376-DUP1	B3		1	8.94	1.87					87471-1.RAW	10:41:15	342.88	Sample	OK	1	
F710376-MS1	B4		1	8.94	6.69			233.28		87472-1.RAW	10:45:24	1204.78	Sample	OK	1	
F710376-MSD1	B5		1	8.94	6.77					87473-1.RAW	10:49:32	1218.64	Sample	OK	1	
ws	A6		20	8.94	103.79					87474-1.RAW	10:53:41	936.17	Sample	OK	1	WRONG LOCATION
ws	A7		20	8.94	390.15					87475-1.RAW	10:57:49	3494.33	Sample	OK	1	WRONG LOCATION
F710215-BLK3	B8		20	8.94	2.36					87476-2.RAW	11:03:44	30.01	Sample	OK	1	
*F710215-BLK4	B9		20	8.94	2.12					87477-1.RAW	11:07:53	27.90	Sample	OK	1	
*F710215-BLK5	B10		20	8.94	1.28					87478-1.RAW	11:12:01	20.34	Sample	OK	1	
SEQ-CCV2	B11		1	8.94	5.02			100.43		87479-1.RAW	11:16:10	906.16	Sample	OK	1	
SEQ-CCB2	B12		1	8.94	0.05			0.00		87480-1.RAW	11:20:18	18.09	Sample	OK	1	
*F710215-BLK6	B13		20	8.94	1.04					87481-1.RAW	11:24:27	18.25	Sample	OK	1	
*F710215-BLK7	B14		20	8.94	0.69					87482-1.RAW	11:28:35	15.07	Sample	OK	1	
F710215-BLK1	B15		20	8.94	1.67					87483-1.RAW	11:32:43	23.82	Sample	OK	1	
F710215-BLK2	B16		20	8.94	1.22					87484-1.RAW	11:36:52	19.81	Sample	OK	1	
F710215-BS1	B17		20	8.94	99.82					87485-1.RAW	11:41:00	900.71	Sample	OK	1	
F710215-BSD1	B18		20	8.94	105.25					87486-1.RAW	11:45:09	949.16	Sample	OK	1	
F710215-BS2	B19		400	8.94	2155.87					87487-1.RAW	11:49:17	971.90	Sample	OK	1	
1709619-06	B20		100	8.94	1073.25					87488-1.RAW	11:53:26	1926.50	Sample	OK	1	
1709619-07	B21		100	8.94	909.17					87489-1.RAW	11:57:34	1633.34	Sample	OK	1	
1709619-08	C1		100	8.94	1022.51					87490-1.RAW	12:01:43	1835.83	Sample	OK	1	

SEQ-CCV3	C2	1	8.94	4.87	97.35	87491-1.RAW	12:05:51	878.64	Sample	OK	1
SEQ-CCB3	C3	1	8.94	0.07	0.00	87492-1.RAW	12:09:59	21.49	Sample	OK	1
1709619-09	C4	100	8.94	935.64		87493-1.RAW	12:14:08	1680.62	Sample	OK	1
1709619-10	C5	100	8.94	967.54		87494-1.RAW	12:18:16	1737.63	Sample	OK	1
1709619-11	C6	100	8.94	1011.16		87495-1.RAW	12:22:25	1815.57	Sample	OK	1
1709619-12	C7	100	8.94	1048.33		87496-1.RAW	12:26:33	1881.97	Sample	OK	1
1709619-13	C8	100	8.94	1031.99		87497-1.RAW	12:30:42	1852.77	Sample	OK	1
1709619-14	C9	100	8.94	1107.54		87498-1.RAW	12:34:50	1987.76	Sample	OK	1
1709619-15	C10	100	8.94	1014.08		87499-1.RAW	12:38:59	1820.77	Sample	OK	1
1709619-16	C11	100	8.94	853.62		87500-1.RAW	12:43:07	1534.09	Sample	OK	1
1709619-17	C12	100	8.94	882.46		87501-1.RAW	12:47:15	1585.61	Sample	OK	1
1709619-18	C13	100	8.94	942.07		87502-1.RAW	12:51:24	1692.12	Sample	OK	1
SEQ-CCV4	C14	1	8.94	5.20	103.98	87503-1.RAW	12:55:32	937.83	Sample	OK	1
SEQ-CCB4	C15	1	8.94	0.05	0.00	87504-1.RAW	12:59:41	18.47	Sample	OK	1
1709619-19	C16	100	8.94	977.03		87505-1.RAW	13:03:49	1754.58	Sample	OK	1
1709619-20	C17	100	8.94	821.77		87506-1.RAW	13:07:58	1477.18	Sample	OK	1
1709620-01	C18	100	8.94	654.39		87507-1.RAW	13:12:06	1178.13	Sample	OK	1
1709620-02	C19	100	8.94	1826.19		87508-1.RAW	13:16:15	3271.75	Sample	OK	1
1709620-03	C20	100	8.94	2339.16		87509-1.RAW	13:20:23	4188.28	Sample	OK	1
1709620-04	C21	100	8.94	1419.53		87510-1.RAW	13:24:31	2545.18	Sample	OK	1
1709620-07	A1	100	8.94	1648.72		87511-1.RAW	13:28:40	2954.67	Sample	OK	1
F710215-DUP1	A2	100	8.94	996.46		87512-1.RAW	13:32:48	1789.30	Sample	OK	1
F710215-MS1	A3	400	8.94	5643.59	565.80	87513-1.RAW	13:36:57	2529.76	Sample	OK	1
F710215-MSD1	A4	400	8.94	5658.16		87514-1.RAW	13:41:05	2536.27	Sample	OK	1
SEQ-CCV5	A5	1	8.94	5.23	104.55	87515-1.RAW	13:45:14	942.94	Sample	OK	1
SEQ-CCB5	A6	1	8.94	0.14	0.00	87516-1.RAW	13:49:22	34.80	Sample	OK	1
F710215-MS2	A7	400	8.94	5665.77	264166.22	87517-1.RAW	13:53:30	2539.67	Sample	OK	1
F710215-MSD2	A8	400	8.94	6038.79		87518-1.RAW	13:57:39	2706.28	Sample	OK	1
F710291-BLK1	A9	20	8.94	3.85		87519-1.RAW	14:01:47	43.35	Sample	OK	1
F710291-BLK2	A10	20	8.94	2.20		87520-1.RAW	14:05:56	28.60	Sample	OK	1
F710291-BLK3	A11	20	8.94	2.47		87521-1.RAW	14:10:04	30.99	Sample	OK	1
*F710291-BLK4	A12	20	8.94	1.75		87522-1.RAW	14:14:13	24.55	Sample	OK	1
*F710291-BLK5	A13	20	8.94	1.78		87523-1.RAW	14:18:21	24.83	Sample	OK	1
WS	A17	100	8.94	485.28		87524-1.RAW	14:22:30	875.97	Sample	OK	1
F710291-BS1	A14	20	8.94	107.15		87525-1.RAW	14:26:38	966.14	Sample	OK	1
F710291-BSD1	A15	20	8.94	109.81		87526-1.RAW	14:30:46	989.96	Sample	OK	1
SEQ-CCV6	A17	1	8.94	4.96	99.23	87527-1.RAW	14:34:55	895.36	Sample	OK	1
SEQ-CCB6	A18	1	8.94	0.08	0.00	87528-1.RAW	14:39:03	24.04	Sample	OK	1
1709629-19	A19	100	8.94	1007.58		87529-2.RAW	14:44:22	1809.16	Sample	OK	1
F710291-BS2	A16	400	8.94	2408.83		87530-1.RAW	14:48:30	1084.89	Sample	OK	1
1709629-20	A20	100	8.94	1350.11		87531-1.RAW	14:52:39	2421.15	Sample	OK	1
1709630-01	A21	100	8.94	1167.28		87532-1.RAW	14:56:47	2094.50	Sample	OK	1
1709630-02	B1	100	8.94	1209.34		87533-1.RAW	15:00:56	2169.65	Sample	OK	1
1709630-03	B2	100	8.94	653.86		87534-1.RAW	15:05:04	1177.18	Sample	OK	1
1709630-04	B3	100	8.94	1893.50		87535-1.RAW	15:09:12	3392.02	Sample	OK	1
1709630-05	B4	100	8.94	998.24		87536-1.RAW	15:13:21	1792.48	Sample	OK	1
1709630-06	B5	100	8.94	1398.20		87537-1.RAW	15:17:29	2507.07	Sample	OK	1
1709630-07	B6	100	8.94	1464.67		87538-1.RAW	15:21:38	2625.83	Sample	OK	1
SEQ-CCV7	B7	1	8.94	5.11	102.13	87539-1.RAW	15:25:46	921.29	Sample	OK	1
SEQ-CCB7	B8	1	8.94	0.12	0.00	87540-1.RAW	15:29:55	30.69	Sample	OK	1
1709630-08	B9	100	8.94	1694.05		87541-1.RAW	15:34:03	3035.66	Sample	OK	1
1709630-09	B10	100	8.94	1465.39		87542-1.RAW	15:38:12	2627.13	Sample	OK	1
1709630-10	B11	100	8.94	840.84		87543-1.RAW	15:42:20	1511.24	Sample	OK	1
1709630-11	B12	100	8.94	1088.96		87544-1.RAW	15:46:28	1954.56	Sample	OK	1

WRONG LOCATION

1709630-12	B13	100	8.94	768.90		87545-1.RAW	15:50:36	1382.72	Sample	OK	1
1709630-13	B14	100	8.94	1233.93		87546-1.RAW	15:54:44	2213.58	Sample	OK	1
1709630-14	B15	100	8.94	1178.31		87547-1.RAW	15:58:52	2114.21	Sample	OK	1
1709630-15	B16	100	8.94	1624.71		87548-1.RAW	16:03:01	2911.77	Sample	OK	1
1709630-16	B17	100	8.94	1057.21		87549-1.RAW	16:07:09	1897.84	Sample	OK	1
1709630-17	B18	100	8.94	1412.25		87550-1.RAW	16:11:17	2532.17	Sample	OK	1
SEQ-CCV8	B19	1	8.94	5.13	102.59	87551-1.RAW	16:15:26	925.45	Sample	OK	1
SEQ-CCB8	B20	1	8.94	0.15	0.00	87552-1.RAW	16:19:34	36.62	Sample	OK	1
1709630-18	B21	100	8.94	1272.31		87553-1.RAW	16:23:43	2282.15	Sample	OK	1
F710291-DUP1	C1	100	8.94	1033.85		87554-1.RAW	16:27:51	1856.10	Sample	OK	1
F710291-MS1	C2	400	8.94	6227.66	601.79	87555-1.RAW	16:31:59	2790.65	Sample	OK	1
F710291-MSD1	C3	400	8.94	5516.38		87556-1.RAW	16:36:08	2472.94	Sample	OK	1
F710291-MS2	C4	400	8.94	6130.98	111.10	87557-1.RAW	16:40:16	2747.46	Sample	OK	1
F710291-MSD2	C5	400	8.94	6114.31		87558-1.RAW	16:44:25	2740.02	Sample	OK	1
F710351-BLK1	C6	50	8.94	9.94		87559-1.RAW	16:48:33	44.44	Sample	OK	1
F710351-BLK2	C7	50	8.94	5.67		87560-1.RAW	16:52:41	29.20	Sample	OK	1
F710351-BS1	C8	400	8.94	2936.60		87561-1.RAW	16:56:50	1320.63	Sample	OK	1
F710351-BSD1	C9	400	8.94	2439.57		87562-1.RAW	17:00:58	1098.62	Sample	OK	1
SEQ-CCV9	C10	1	8.94	5.09	101.80	87563-1.RAW	17:05:07	918.40	Sample	OK	1
SEQ-CCB9	C11	1	8.94	0.14	0.00	87564-1.RAW	17:09:15	33.31	Sample	OK	1
1710455-01	C12	50	8.94	4.64		87565-1.RAW	17:13:24	25.53	Sample	OK	1
1710458-01	C13	50	8.94	3.95		87566-1.RAW	17:17:32	23.05	Sample	OK	1
F710351-DUP1	C14	50	8.94	2.23		87567-1.RAW	17:21:40	16.89	Sample	OK	1
F710351-MS1	C15	400	8.94	2883.66	89398.43	87568-1.RAW	17:25:49	1296.98	Sample	OK	1
F710351-MSD1	C16	400	8.94	2739.47		87569-1.RAW	17:29:57	1232.58	Sample	OK	1
SEQ-CCVA	C17	1	8.94	5.09		87570-1.RAW	17:34:06	918.05	Sample	OK	1
SEQ-CCBA	C18	1	8.94	0.11		87571-1.RAW	17:38:14	28.53	Sample	OK	1
SNCL 1706141	C19	1	8.94	0.06		87572-1.RAW	17:42:22	20.12	Sample	OK	1
CLEAN			0.00	0.05		87573-1.RAW	17:45:14	9.54	Clean	OK	1
CLEAN			0.00	0.05		87574-1.RAW	17:48:05	9.59	Clean	OK	1
WS			8.94	0.05		87575-1.RAW	17:52:14	17.45	Sample	OK	1
WS			8.94	0.00		87576-1.RAW	17:56:22	7.84	Sample	OK	1
WS			8.94	0.02		87577-1.RAW	18:00:30	13.09	Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7J18020

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R 10/19/17* Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18020-IBL1 ✓	QC	1			
7J18020-IBL2 ✓	QC	2			
7J18020-IBL3 ✓	QC	3			
7J18020-CAL1 ✓	QC	4	1704505		
7J18020-CAL2 ✓	QC	5	1704506		
7J18020-CAL3 ✓	QC	6	1704507		
7J18020-CAL4 ✓	QC	7	1704508		
7J18020-CAL5 ✓	QC	8	1704509		
7J18020-ICV1 ✓	QC	9	1705628		
7J18020-CCV1 ✓	QC	10	1705628		
7J18020-CCB1 ✓	QC	11			
F710215-BLK3 ✓	QC	12			
F710215-BLK4 ✓	QC	13			
F710215-BLK5 ✓	QC	14			
7J18020-CCV2 ✓	QC	15	1705628		
7J18020-CCB2 ✓	QC	16			
F710215-BLK6 ✓	QC	17			
F710215-BLK7 ✓	QC	18			
F710215-BLK1 ✓	QC	19			
F710215-BLK2 ✓	QC	20			
F710215-BS1 ✓	QC	21			
F710215-BSD1 ✓	QC	22			
F710215-BS2 ✓	QC	23			
1709619-06 ✓	Hg-CVAFS-T-7030	24			
1709619-07 ✓	Hg-CVAFS-T-7030	25			
1709619-08 ✓	Hg-CVAFS-T-7030	26			
7J18020-CCV3	QC	27	1705628		
7J18020-CCB3 ✓	QC	28			
1709619-09 ✓	Hg-CVAFS-T-7030	29			
1709619-10 ✓	Hg-CVAFS-T-7030	30			
1709619-11 ✓	Hg-CVAFS-T-7030	31			
1709619-12 ✓	Hg-CVAFS-T-7030	32			
1709619-13 ✓	Hg-CVAFS-T-7030	33			
1709619-14 ✓	Hg-CVAFS-T-7030	34			
1709619-15 ✓	Hg-CVAFS-T-7030	35			

ANALYSIS SEQUENCE

7J18020

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709619-16 ✓	Hg-CVAFS-T-7030	36			
1709619-17 ✓	Hg-CVAFS-T-7030	37			
1709619-18 ✓	Hg-CVAFS-T-7030	38			
7J18020-CCV4 ✓	QC	39	1705628	✓	
7J18020-CCB4 ✓	QC	40			
1709619-19 ✓	Hg-CVAFS-T-7030	41			
1709619-20 ✓	Hg-CVAFS-T-7030	42			
1709620-01 ✓	Hg-CVAFS-T-7030	43			
1709620-02 ✓	Hg-CVAFS-T-7030	44			
1709620-03 ✓	Hg-CVAFS-T-7030	45			
1709620-04 ✓	Hg-CVAFS-T-7030	46			
1709620-07 ✓	Hg-CVAFS-T-7030	47			
F710215-DUP1 ✓	QC	48			
F710215-MS1 ✓	QC	49			
F710215-MSD1 ✓	QC	50			
7J18020-CCV5 ✓	QC	51	1705628		
7J18020-CCB5 ✓	QC	52			
F710215-MS2 ✓	QC	53			
F710215-MSD2 ✓	QC	54			
F710291-BLK1 ✓	QC	55			
F710291-BLK2 ✓	QC	56			
F710291-BLK3 ✓	QC	57			
F710291-BLK4 ✓	QC	58			
F710291-BLK5 ✓	QC	59			
F710291-BS1 ✓	QC	60			
F710291-BSD1 ✓	QC	61			
7J18020-CCV6 ✓	QC	62	1705628	✓	
7J18020-CCB6 ✓	QC	63			
1709629-19 ✓	Hg-CVAFS-T-7030	64			
F710291-BS2 ✓	QC	65			
1709629-20 ✓	Hg-CVAFS-T-7030	66			
1709630-01 ✓	Hg-CVAFS-T-7030	67			
1709630-02 ✓	Hg-CVAFS-T-7030	68			
1709630-03 ✓	Hg-CVAFS-T-7030	69			
1709630-04 ✓	Hg-CVAFS-T-7030	70			

Due Date: 10/20/2017

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Page 2 of 3

ANALYSIS SEQUENCE

7J18020

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709630-05 ✓	Hg-CVAFS-T-7030	71			
1709630-06 ✓	Hg-CVAFS-T-7030	72			
1709630-07 ✓	Hg-CVAFS-T-7030	73			
7J18020-CCV7 ✓	QC	74	1705628	✓	
7J18020-CCB7 ✓	QC	75			
1709630-08 ✓	Hg-CVAFS-T-7030	76			
1709630-09 ✓	Hg-CVAFS-T-7030	77			
1709630-10 ✓	Hg-CVAFS-T-7030	78			
1709630-11 ✓	Hg-CVAFS-T-7030	79			
1709630-12 ✓	Hg-CVAFS-T-7030	80			
1709630-13 ✓	Hg-CVAFS-T-7030	81			
1709630-14 ✓	Hg-CVAFS-T-7030	82			
1709630-15 ✓	Hg-CVAFS-T-7030	83			
1709630-16 ✓	Hg-CVAFS-T-7030	84			
1709630-17 ✓	Hg-CVAFS-T-7030	85		✓	
7J18020-CCV8 ✓	QC	86	1705628		
7J18020-CCB8 ✓	QC	87			
1709630-18 ✓	Hg-CVAFS-T-7030	88			
F710291-DUP1 ✓	QC	89			
F710291-MS1 ✓	QC	90			
F710291-MSD1 ✓	QC	91			
F710291-MS2 ✓	QC	92			
F710291-MSD2 ✓	QC	93			
7J18020-CCV9 ✓	QC	94	1705628	✓	
7J18020-CCB9 ✓	QC	95			

Beck 10/18/17
 Samples Loaded By Date

Beck 10/18/17
 Data Processed By Date

10768
 10/17/17

PREPARATION BENCH SHEET

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710215-BLK1	Blank	0.25	20					
F710215-BLK2	Blank	0.25	20					
F710215-BLK3	Blank	0.25	20					
F710215-BLK4	Blank	0.266	20					Pre-homogenization Blank for 1709619
F710215-BLK5	Blank	0.258	20					Post-homogenization Blank for 1709619
F710215-BLK6	Blank	0.276	20					Pre-homogenization Blank for 1709620
F710215-BLK7	Blank	0.252	20					Post-homogenization Blank for 1709620
F710215-BS1	LCS	0.25	20	1704421	20			
F710215-BS2	DORM4	0.1256	20	1705412	125.6			
F710215-BSD1	LCS Dup	0.25	20	1704421	20			
F710215-DUP1	Duplicate [1709619-06]	0.276	20					
F710215-MS1	Matrix Spike [1709619-06]	0.276	20	1705554	100			
F710215-MS2	Matrix Spike [1709619-07]	0.267	20	1705554	100			
F710215-MSD1	Matrix Spike Dup [1709619-06]	0.266	20	1705554	100			
F710215-MSD2	Matrix Spike Dup [1709619-07]	0.274	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709619-06	OB-05_17SN001_091517_MUM_06_WB	0.28	20	-	-	-		
1709619-07	OB-05_17SN001_091517_MUM_07_WB	0.254	20	-	-	-		
1709619-08	OB-05_17SN001_091517_MUM_08_WB	0.263	20	-	-	-		
1709619-09	OB-05_17SN001_091517_MUM_09_WB	0.252	20	-	-	-		
1709619-10	OB-05_17SN001_091517_MUM_10_WB	0.259	20	-	-	-		
1709619-11	OB-05_17SN001_091517_MUM_11_WB	0.262	20	-	-	-		
1709619-12	OB-05_17SN001_091517_MUM_12_WB	0.259	20	-	-	-		
1709619-13	OB-05_17SN001_091517_MUM_13_WB	0.268	20	-	-	-		
1709619-14	OB-05_17SN001_091517_MUM_14_WB	0.272	20	-	-	-		
1709619-15	OB-05_17SN001_091517_MUM_15_WB	0.261	20	-	-	-		
1709619-16	OB-05_17SN001_091517_MUM_16_WB	0.262	20	-	-	-		
1709619-17	OB-05_17SN001_091517_MUM_17_WB	0.265	20	-	-	-		
1709619-18	OB-05_17SN001_091517_MUM_18_WB	0.269	20	-	-	-		
1709619-19	OB-05_17SN001_091517_MUM_19_WB	0.255	20	-	-	-		
1709619-20	OB-05_17SN001_091517_MUM_20_WB	0.262	20	-	-	-		
1709620-01	MMMC-01_17MT001_091817_MUM_01_WB	0.254	20	-	-	-		
1709620-02	MMMC-01_17MT001_092017_MUM_02_WB	0.267	20	-	-	-		
1709620-03	MMMC-01_17MT004_092017_MUM_03_WB	0.271	20	-	-	-		
1709620-04	MMMC-01_17MT004_092017_MUM_04_WB	0.261	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710215

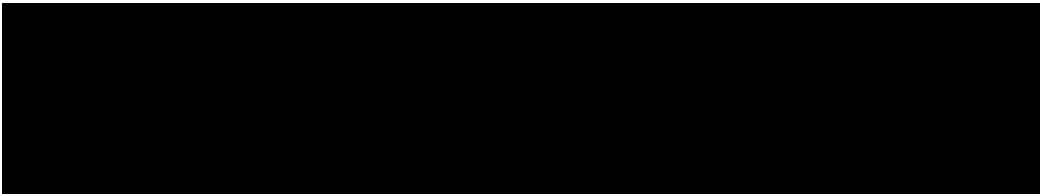
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709620-07	MMMC-01_17MT003_092017_MUM_07_WB	0.2702	20	-	-	-		
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PREPARATION BENCH SHEET

200-2
10/17/17 BC

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710215-BLK1	Blank	0.25	20					20X -
F710215-BLK2	Blank	0.25	20					20X -
F710215-BLK3	Blank	0.25	20					20X -
F710215-BLK4	Blank	0.266	20					Pre-homogenization Blank for 1709619 20X
F710215-BLK5	Blank	0.258	20					Post-homogenization Blank for 1709619 20X
F710215-BLK6	Blank	0.276	20					Pre-homogenization Blank for 1709620 20X
F710215-BLK7	Blank	0.252	20					Post-homogenization Blank for 1709620 20X
F710215-BS1	LCS	0.25	20	1704421	20			20X -
F710215-BS2	DORM4	0.1256	20	1705412	125.6			400X -
F710215-BSD1	LCS Dup	0.25	20	1704421	20			20X -
F710215-DUP1	Duplicate [1709619-06]	0.276	20					100X -
F710215-MS1	Matrix Spike [1709619-06]	0.276	20	1705554	100			400X -
F710215-MS2	Matrix Spike [1709619-07]	0.267 0.25	20 20	1705554	100			400X -
F710215-MSD1	Matrix Spike Dup [1709619-06]	0.266	20	1705554	100			400X -
F710215-MSD2	Matrix Spike Dup [1709619-07]	0.274	20	1705554	100			400X -

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705915	5% BrCl	14-Mar-18 00:00

~~BLK 8 is run of BLK 1~~
~~BLK 9 is run of BLK 2~~

1709182
1705961
1705410
1705411

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709619-06	OB-05_17SN001_091517_MUM_06_WB	0.28	20	-	-	-		100X ✓
1709619-07	OB-05_17SN001_091517_MUM_07_WB	0.254	20	-	-	-		100X ✓
1709619-08	OB-05_17SN001_091517_MUM_08_WB	0.263	20	-	-	-		100X ✓
1709619-09	OB-05_17SN001_091517_MUM_09_WB	0.252	20	-	-	-		100X ✓
1709619-10	OB-05_17SN001_091517_MUM_10_WB	0.259	20	-	-	-		100X ✓
1709619-11	OB-05_17SN001_091517_MUM_11_WB	0.262	20	-	-	-		100X ✓
1709619-12	OB-05_17SN001_091517_MUM_12_WB	0.259	20	-	-	-		100X ✓
1709619-13	OB-05_17SN001_091517_MUM_13_WB	0.268	20	-	-	-		100X ✓
1709619-14	OB-05_17SN001_091517_MUM_14_WB	0.272	20	-	-	-		100X ✓
1709619-15	OB-05_17SN001_091517_MUM_15_WB	0.261	20	-	-	-		100X ✓
1709619-16	OB-05_17SN001_091517_MUM_16_WB	0.262	20	-	-	-		100X ✓
1709619-17	OB-05_17SN001_091517_MUM_17_WB	0.265	20	-	-	-		100X ✓
1709619-18	OB-05_17SN001_091517_MUM_18_WB	0.269	20	-	-	-		100X ✓
1709619-19	OB-05_17SN001_091517_MUM_19_WB	0.255	20	-	-	-		100X ✓
1709619-20	OB-05_17SN001_091517_MUM_20_WB	0.262	20	-	-	-		100X ✓
1709620-01	MMMC-01_17MT001_091817_MUM_01_WB	0.254	20	-	-	-		100X ✓
1709620-02	MMMC-01_17MT001_092017_MUM_02_WB	0.267	20	-	-	-		100X ✓
1709620-03	MMMC-01_17MT004_092017_MUM_03_WB	0.271	20	-	-	-		100X ✓
1709620-04	MMMC-01_17MT004_092017_MUM_04_WB	0.261	20	-	-	-		100X ✓

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

F710215

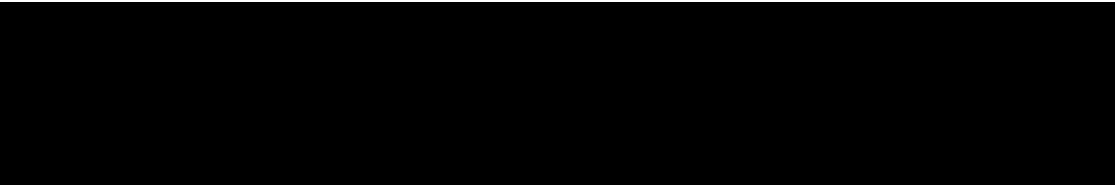
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709620-07	MMMC-01_17MT003_092017_MUM_07_WB	0.2702	20	-	-	-		100X ✓
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Batch#: F710215 Date: 10/4/17

- EFAS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6, 19 (DORM 4) Calibrated? Yes No Therm.#: 40418012 Calibrated? Yes No

*Time in: 17:00 Actual Temp. (raw): 80.12 °C w/ CF: 19.7 °C

Time out: 19:00 Actual Temp. (raw): Timer °C w/ CF: Timer °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705915) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: DM 10/4/17 (initial and date)

HCl LIMS ID: NA

Pipette SN#: MM11619 Calibration Date: 10/2/17

HNO₃ LIMS ID: NA

Pipette SN#: NA Calibration Date: NA

70/30 LIMS ID: 1705859

Dispenser #: 02K2749 Calibrated? Yes No

Other Acid LIMS ID: NA

Dispenser #: 15406623

Glass Vial # 00063642, Boiling Chip lot # 1702551 *Hotblock Position: M5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F710215 - Blk1	0.266	23	1709619 - 17	0.265	BS2 = DORM 4 LIMS: 1705402
2	F710215 - Blk2	0.253	24	1709619 - 18	0.269	
3	F710215 - Blk3	0.272	25	1709619 - 19	0.255	
4	F710215 - BS1	0.258	26	1709619 - 20	0.262	Comments
5	F710215 - BSD1	0.277	27	1709620 - 01	0.254	
6	F710215 - BS2	0.256	28	1709620 - 02	0.267	DUP/MS1/MSD1 source: 1709619-06
7	1709619 - 06	0.280	29	1709620 - 03	0.271	MS2/MSD2 source: 1709619-07
8	F710215 - DUP1	0.276	30	1709620 - 04	0.261	BS1/BSD1 spilled with 20µL of 1704421
9	F710215 - MS1	0.276	31	1709620 - 05 taken out of batch w/CF 10/4/17		
10	F710215 - MSD1	0.266	32	F710215 - Blk4	0.266	Blk4 + 5 are Pre/Post blanks
11	1709619 - 07	0.254	33	F710215 - Blk5	0.258	
12	F710215 - MS2	0.267	34	F710215 - Blk6	0.276	Blk6 + 7 are Pre/Post blanks for 1709620
13	F710215 - MSD2	0.274	35	F710215 - Blk7	0.252	
14	1709619 - 08	0.263	36	1709620 - 06 07	0.2702 w/CF for 1709619 0.258 w/CF	Blk6 + 7 are Pre/Post blanks for 1709620
15	1709619 - 09	0.252	37			
16	1709619 - 10	0.259	38			Blk6 + 7 are Pre/Post blanks for 1709620
17	1709619 - 11	0.262	39			
18	1709619 - 12	0.259	40			Blk3 does not seem to be 1/20mL Final Volume c/c 10/5/17
19	1709619 - 13	0.268	41			
20	1709619 - 14	0.272	42			
21	1709619 - 15	0.261	43			
22	1709619 - 16	0.262	44			

PREPARATION BENCH SHEET

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710291-BLK1	Blank	0.25	20					
F710291-BLK2	Blank	0.25	20					
F710291-BLK3	Blank	0.25	20					
F710291-BLK4	Blank	0.298	20					Pre-homogenization Blank for 1709630 + 1709631
F710291-BLK5	Blank	0.295	20					Post-homogenization Blank for 1709630 + 1709631
F710291-BS1	LCS	0.25	20	1704421	20			
F710291-BS2	DORM4	0.1298	20	1705412	129.8			
F710291-BSD1	LCS Dup	0.25	20	1704421	20			
F710291-DUP1	Duplicate [1709629-19]	0.28	20					
F710291-MS1	Matrix Spike [1709629-19]	0.291	20	1705554	100			
F710291-MS2	Matrix Spike [1709630-08]	0.261	20	1705554	100			
F710291-MSD1	Matrix Spike Dup [1709629-19]	0.274	20	1705554	100			
F710291-MSD2	Matrix Spike Dup [1709630-08]	0.285	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705927	70/30 Digestion Acid	02-Apr-18 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709629-19	ES-FP_17HC001_091917_BLM_19_WB	0.279	20	-	-	-		
1709629-20	ES-FP_17HC001_091917_BLM_20_WB	0.277	20	-	-	-		
1709630-01	ES-13_17HC001_091417_BLM_01_WB	0.29	20	-	-	-		
1709630-02	ES-13_17HC001_091417_BLM_02_WB	0.279	20	-	-	-		
1709630-03	ES-13_17HC001_091417_BLM_03_WB	0.269	20	-	-	-		
1709630-04	ES-13_17HC001_091417_BLM_04_WB	0.262	20	-	-	-		
1709630-05	ES-13_17HC001_091417_BLM_05_WB	0.277	20	-	-	-		
1709630-06	ES-13_17HC001_091417_BLM_06_WB	0.256	20	-	-	-		
1709630-07	ES-13_17HC001_091417_BLM_07_WB	0.267	20	-	-	-		
1709630-08	ES-13_17HC001_091417_BLM_08_WB	0.278	20	QC	-	-	MS/MSD	
1709630-09	ES-13_17HC001_091417_BLM_09_WB	0.277	20	-	-	-		
1709630-10	ES-13_17HC001_091417_BLM_10_WB	0.271	20	-	-	-		
1709630-11	ES-13_17HC001_091417_BLM_11_WB	0.27	20	-	-	-		
1709630-12	ES-13_17HC001_091417_BLM_12_WB	0.275	20	-	-	-		
1709630-13	ES-13_17HC001_091417_BLM_13_WB	0.285	20	-	-	-		
1709630-14	ES-13_17HC001_091417_BLM_14_WB	0.271	20	-	-	-		
1709630-15	ES-13_17HC001_091417_BLM_15_WB	0.259	20	-	-	-		
1709630-16	ES-13_17HC001_091417_BLM_16_WB	0.288	20	-	-	-		
1709630-17	ES-13_17HC001_091417_BLM_17_WB	0.254	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710291

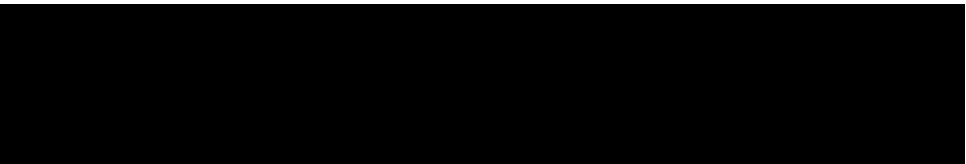
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709630-18	ES-13_17HC001_091417_BLM_18_WB	0.28	20	-	-	-		
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PREPARATION BENCH SHEET

2600-2
10/17/17 BC

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710291-BLK1	Blank	0.25	20					20X
F710291-BLK2	Blank	0.25	20					20X
F710291-BLK3	Blank	0.25	20					20X
F710291-BLK4	Blank	0.298	20					Pre-homogenization Blank for 1709630 + 1709631
F710291-BLK5	Blank	0.295	20					Post-homogenization Blank for 1709630 + 1709631
F710291-BS1	LCS	0.25	20	1704421	20			20X
F710291-BS2	DORM4	0.1298	20	1705412	129.8			400X
F710291-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710291-DUP1	Duplicate [1709629-19]	0.28	20					100X
F710291-MS1	Matrix Spike [1709629-19]	0.291	20	1705554	100			400X
F710291-MS2	Matrix Spike [1709630-08]	0.261	20	1705554	100			400X
F710291-MSD1	Matrix Spike Dup [1709629-19]	0.274	20	1705554	100			400X
F710291-MSD2	Matrix Spike Dup [1709630-08]	0.285	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705927	70/30 Digestion Acid	02-Apr-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706079	5% BrCl	14-Mar-18 00:00

20X = 2.5 mL
~~40X =~~
 100X = 500 µL
 400X = 125 µL

1705610
 1705611
 1705961
 1703182

2600-2
10/17/17 JZ

PREPARATION BENCH SHEET

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709629-19	ES-FP_17HC001_091917_BLM_19_WB	0.279	20	-	-	-	100X -	
1709629-20	ES-FP_17HC001_091917_BLM_20_WB	0.277	20	-	-	-	100X -	
1709630-01	ES-13_17HC001_091417_BLM_01_WB	0.29	20	-	-	-	100X -	
1709630-02	ES-13_17HC001_091417_BLM_02_WB	0.279	20	-	-	-	100X -	
1709630-03	ES-13_17HC001_091417_BLM_03_WB	0.269	20	-	-	-	100X -	
1709630-04	ES-13_17HC001_091417_BLM_04_WB	0.262	20	-	-	-	100X -	
1709630-05	ES-13_17HC001_091417_BLM_05_WB	0.277	20	-	-	-	100X -	
1709630-06	ES-13_17HC001_091417_BLM_06_WB	0.256	20	-	-	-	100X -	
1709630-07	ES-13_17HC001_091417_BLM_07_WB	0.267	20	-	-	-	100X -	
1709630-08	ES-13_17HC001_091417_BLM_08_WB	0.278	20	QC	-	-	MS/MSD 100X -	
1709630-09	ES-13_17HC001_091417_BLM_09_WB	0.277	20	-	-	-	100X -	
1709630-10	ES-13_17HC001_091417_BLM_10_WB	0.271	20	-	-	-	100X -	
1709630-11	ES-13_17HC001_091417_BLM_11_WB	0.27	20	-	-	-	100X -	
1709630-12	ES-13_17HC001_091417_BLM_12_WB	0.275	20	-	-	-	100X -	
1709630-13	ES-13_17HC001_091417_BLM_13_WB	0.285	20	-	-	-	100X -	
1709630-14	ES-13_17HC001_091417_BLM_14_WB	0.271	20	-	-	-	100X -	
1709630-15	ES-13_17HC001_091417_BLM_15_WB	0.259	20	-	-	-	100X -	
1709630-16	ES-13_17HC001_091417_BLM_16_WB	0.288	20	-	-	-	100X -	
1709630-17	ES-13_17HC001_091417_BLM_17_WB	0.254	20	-	-	-	100X -	

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2
10/17/17B

F710291

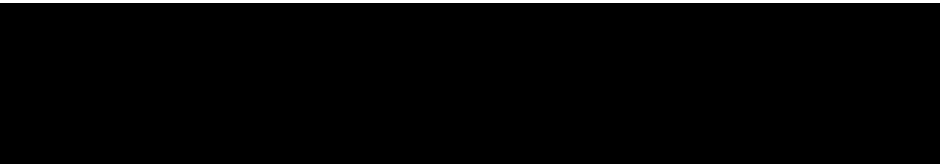
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709630-18	ES-13_17HC001_091417_BLM_18_WB	0.28	20	-	-	-	100%	
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Technician: wf Batch#: F710291 Date: 10/12/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19 (DORM) Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 18:10 Actual Temp. (raw): 72.0 °C w/ CF: 71.7 °C
 Time out: 9:45 Actual Temp. (raw): 80.0 °C w/ CF: 79.3 °C 79.7 °C

*Time in can't begin before target temperature is reached
 Final vol.: 20 mL (LIMS ID: 1706079) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: DM 10/12/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: M11619 Calibration Date: 10/9/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1706064 Dispenser #: 0262749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406523 JYS
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: A3

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710291 - Blk1	0.266	23	1709630 - 10	0.271	BS2=DORM
2	F710291 - Blk2	0.261	24	1709630 - 11	0.270	LIMS: 1705412 Balance: 19
3	F710291 - Blk3	0.259	25	1709630 - 12	0.275	
4	F710291 - BSI	0.261	26	1709630 - 13	0.285	Comments
5	F710291 - BSD1	0.283	27	1709630 - 14	0.271	BSI/BSD1 spiked
6	F710291 - BS2	0.1298	28	1709630 - 15	0.259	with 20µl of 1704421
7	1709629 - 19	0.279	29	1709630 - 16	0.288	
8	F710291 - DUP1	0.280	30	1709630 - 17	0.254	DUP1/MS1/MSD1
9	F710291 - MS1	0.291	31	1709630 - 18	0.280	source: 1709629-19
10	F710291 - MSD1	0.274	32			MS2/MSD2
11	1709629 - 20	0.277	33			source: 1709629-20 1709630-08 wf 10/12/17
12	1709630 - 01	0.290	34			
13	1709630 - 02	0.279	35			* Blk 4+5 Pre/Post
14	1709630 - 03	0.269	36			blanks for 1709630, 1709630
15	1709630 - 04	0.262	37			added 10/12/17 wf.
16	1709630 - 05	0.277	38			
17	1709630 - 06	0.256	39			5% BrCl added by
18	1709630 - 07	0.267	40			AMB.
19	1709630 - 08	0.278	41			*AMB 10/13/17
20	F710291 - MS2	0.261	42			
21	F710291 - MSD2	0.285	43			
22	1709630 - 09	0.277	44			

* 32 F710291 - Blk4 0.298
 wf 10/12/17
 * 33 F710291 - Blk5
 0.295g
 wf 10/12/17

ANALYSIS SEQUENCE

QUALITY ASSURANCE

PEER-REVIEWED

7J18019

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *pc 10/19/17*
 Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18019-IBL1	QC	1			
7J18019-IBL2	QC	2			
7J18019-IBL3	QC	3			
7J18019-CAL1	QC	4	1704505	✓	
7J18019-CAL2	QC	5	1704506	✓	
7J18019-CAL3	QC	6	1704507	✓	
7J18019-CAL4	QC	7	1704508	✓	
7J18019-CAL5	QC	8	1704509	✓	
7J18019-ICV1	QC	9	1705628	✓	
7J18019-CCV1	QC	10	1705628	✓	
7J18019-CCB1	QC	11			
7J18019-CCV2	QC	12	1705628	✓	
7J18019-CCB2	QC	13			
7J18019-CCV3	QC	14	1705628	✓	
7J18019-CCB3	QC	15			
7J18019-CCV4	QC	16	1705628	✓	
7J18019-CCB4	QC	17			
7J18019-CCV5	QC	18	1705628	✓	
7J18019-CCB5	QC	19			
7J18019-CCV6	QC	20	1705628	✓	
7J18019-CCB6	QC	21			
7J18019-CCV7	QC	22	1705628	✓	
7J18019-CCB7	QC	23			
7J18019-CCV8	QC	24	1705628	✓	
7J18019-CCB8	QC	25			
F710351-BLK1	QC	26			
F710351-BLK2	QC	27			
F710351-BS1	QC	28			
F710351-BSD1	QC	29			
7J18019-CCV9	QC	30	1705628	✓	
7J18019-CCB9	QC	31			
1710455-01	Hg-CVAFS-S-Bomb	32			QG00L-1 - Prep 2.0-2.15 grams
1710458-01	Hg-CVAFS-S-Bomb	33			QG00L-1 - Prep 2.0-2.15 grams
F710351-DUP1	QC	34			
F710351-MS1	QC	35			

ANALYSIS SEQUENCE

7J18019

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F710351-MSD1 ✓	QC	36			
7J18019-CCVA ✓	QC	37	1705628	✓	
7J18019-CCBA ✓	QC	38			

Beck 10/18/17
Samples Loaded By Date

Beck 10/18/17
Data Processed By Date

10/17/17
B.P.O.1

PREPARATION BENCH SHEET

F710351

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710351-BLK1	Blank	0.5	50					
F710351-BLK2	Blank	0.5	50					
F710351-BS1	LCS	0.5	50	1705879	50			
F710351-BSD1	LCS Dup	0.5	50	1705879	50			
F710351-DUP1	Duplicate [1710458-01]	2.0436	50					
F710351-MS1	Matrix Spike [1710458-01]	2.0093	50	1705879	50			
F710351-MSD1	Matrix Spike Dup [1710458-01]	2.0268	50	1705879	50			

Standard ID(s): 1705879
Description: EFGS-PREPSPIKE1/2, plus Hg

Expiration: 02-Jan-18 00:00

<u>Reagent ID(s):</u> 1703182	<u>Description:</u> 25% Hydroxylamine-HCl working solution	<u>Expiration:</u> 24-Nov-17 00:00
1705610	THg Washstation (0.5% BrCl)	
1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
1705679	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
1705961	3% SnCl2 THg reductant	25-Mar-18 00:00

PREPARATION BENCH SHEET

F710351

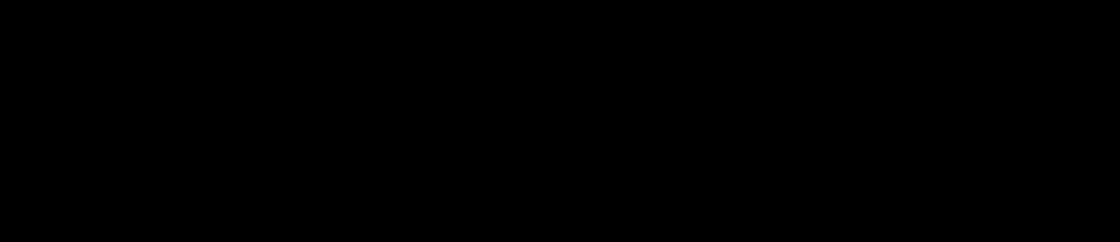
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710455-01	740-2017-10120001 EUUSBO2-00094885	2.04	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	
1710458-01	740-2017-10120002 EUUSBO2-00094886	2.0943	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	



Sample Preparation Review Checklist

Revision: 3
Effective: Dec. 5, 2013

Technician/Date: MMP 10/13/2017 Samples to lab: 1630 Batch #: F710357
 Upload/Date: MMP 10/13/2017 Reviewer/Date: _____

- EFGS Preparation Method**
- FGS-032 Co-APDC
 - FGS-052 Oven Digestion (Total Recoverable Metals) ICPMS AFS
 - FGS-058 Nitric Digestion ICPMS CVAFS
 - FGS-084 Modified Aqua Regia (Ag, Sb only)
 - FGS-108 Cr+6 Sediments/Tissues
 - FGS-109 RP
 - FGS-111 HF Bomb Digestion ICPMS CVAFS
 - FGS-141 Nitric Bomb Digestion ICPMS CVAFS
 - FGS-145 Oven Digestion (As, Se Speciation) As Se
 - FGS-146 Microwave Digestion (Nutraceuticals)
 - FGS-146 Microwave Digestion (CPSC-Metal)
 - FGS-146 Microwave Digestion (CPSC-Non-Metal/Paint)
 - FGS-149 Oven Digestion (Aqueous Nutraceuticals)
 - NA Other:

Initials	SOP Date	DOC Date
<u>MMP</u>	<u>2/4/2017</u>	<u>12/23/2016</u>
_____	_____	_____
_____	_____	_____

Comments: _____

Conditionally formatted training files located at:
 \\us34file\General and Admin\Quality Assurance\Training\Training Master
 (Contact QA for any problems regarding these training files.)

Analytes: Hg

- | | Reviewer Initials | Tertiary Review |
|---|-------------------|-----------------|
| 1. Is any SOP/DOC expiring within one week of Submission Date? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <u>DM</u> | <u>R</u> |
| Data cannot be reported without a current IDOC/CDOC. If YES, notify supervisor and technician immediately. | | |
| 2. Check prep method <input checked="" type="checkbox"/> YES | <u>✓</u> | <u>✓</u> |
| (a) For Ceuticals: Is correct Hg code being used in LIMS? <input type="checkbox"/> ICPMS <input checked="" type="checkbox"/> CV-AFS <input type="checkbox"/> 70:30 <input type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| 3. Compare sample ID with benchsheet <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| 4. Verify time of submission? (if not met please explain in the comments) <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| (a) Oven bomb - digestion start time before 14:00? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| (b) Microwave - submitted to the lab before 16:00? <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| 5. Check for transcription errors from benchsheet <input checked="" type="checkbox"/> YES | <u>✓</u> | <u>✓</u> |
| (a) Check and compare initial and final volumes <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| (b) Check and compare mass <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| (c) Has the number of pills been documented (benchsheet and LIMS)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| (d) Benchsheet prep date MUST match actual prep date <input checked="" type="checkbox"/> YES | <u>✓</u> | <u>✓</u> |
| 6. Samples per Batch? Check QC Requirements <input type="checkbox"/> ≤ 20 <input checked="" type="checkbox"/> ≤ 10 | <u>✓</u> | <u>✓</u> |
| (a) PBs per batch? <input type="checkbox"/> 3 PBs <input checked="" type="checkbox"/> 2 PB <input type="checkbox"/> 1 PB | <u>✓</u> | <u>✓</u> |
| (b) BS, BS/BSD or CRM in batch? <input type="checkbox"/> BS <input checked="" type="checkbox"/> BS/BSD <input type="checkbox"/> CRM | <u>✓</u> | <u>✓</u> |
| (c) MS/MSD in batch? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| (d) MD in batch? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| (e) Client specific WO #'s: _____ <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| (f) Are there any client specific requests and/or alterations? <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| Document: _____ | | |
| (g) Correct LIMS spike ID included for BS, BS/BSD and/or MS/MSD? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| (h) Correct 'source' designated for MD/MS/MSD? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| (i) For EFGS-filtered samples, was a filtration blank included? <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| 7. Are the samples appropriately spiked? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| (a) Is the spike and amount used appropriate and entered into LIMS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| (b) For IDOCs, was there a spike witness? (initials <u>must</u> be in logbook) <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |
| (c) Spikes added: <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>✓</u> | <u>✓</u> |

NOTE: Due to LIMS software constraints, new LIMS IDs need to be created when multiple/ supplemental spikes are used. Enter new LIMS ID below and use table to list all spikes included in it.

Spike LIMS ID : 1705879

Spike Name	LIMS ID	μL	Spike Name	LIMS ID	μL
<u>Pyrophosphate</u>	<u>1703595</u>	<u>50</u>			
<u>Pyrophosphate</u>	<u>1703596</u>	<u>50</u>			
<u>T.Hg</u>	<u>1705876</u>	<u>50</u>			

PREPARATION BENCH SHEET

2000-2
10/18/17 BC
17

F710351

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710351-BLK1	Blank	0.5	50					50X -
F710351-BLK2	Blank	0.5	50					50X -
F710351-BS1	LCS	0.5	50	1705879	50			400X -
F710351-BSD1	LCS Dup	0.5	50	1705879	50			400X -
F710351-DUP1	Duplicate [1710458-01]	2.0436	50					50X -
F710351-MS1	Matrix Spike [1710458-01]	2.0093	50	1705879	50			400X -
F710351-MSD1	Matrix Spike Dup [1710458-01]	2.0268	50	1705879	50			400X -

Standard ID(s): 1705879
Description: EFGS-PREP SPIKE1/2, plus Hg

Expiration: 02-Jan-18 00:00

Reagent ID(s): 1705679
Description: Fisher Nitric Acid, Tracemetal Grade

Expiration: 15-Mar-19 00:00

50X = 1ml
400X = 125ul

1705610
1705611
1705961
1703182

PREPARATION BENCH SHEET

2600-2
10/17/17 BC

F710351

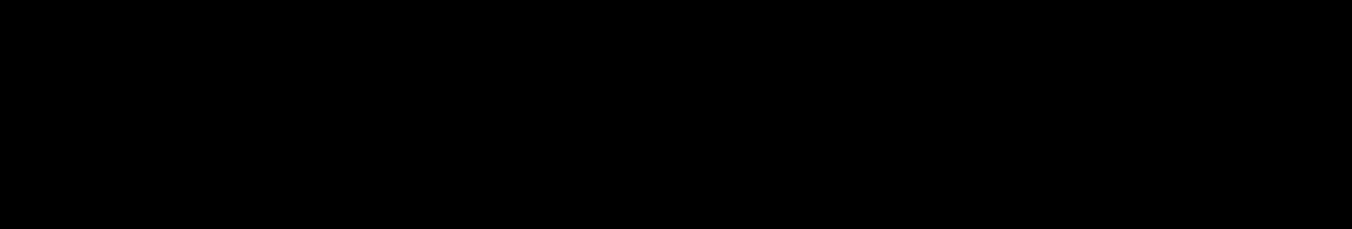
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710455-01	740-2017-10120001 EUUSBO2-00094885	2.04	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	SOX -
1710458-01	740-2017-10120002 EUUSBO2-00094886	2.0943	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	SOX -



Ceutical Digestions

Batch ~~TM~~ / (Hg (circle one)): F710349/35/334 Boiling Chip Lot # 2256A004

Batch continued on next page? Yes No

1° Tech.: MMP 2° Tech.: NA Date/Time In: 10/13/2017 1630

Date/Time Out: 10/14/2017 1030 by Timer

Spiked By: MMP Spike Witness (SW): W

Final Vol. (mL)/Initials/Date:

Balance ID/Cal.?(Y/N): 90 / 10/13/2017

50 MMP 10/16/2017

Digestion: Oven ID: OVN-02 Other ID: _____

Vial Type: 50 mL Centrifuge Tube Teflon

Analysis: ICP-MS CV-AFS
 LC-ICP-MS Other: _____

Thermometer ID: 1312060130 Initial: Temp. (°C): 160 / 157.1 / 157.4
target raw corrected

Final: Temp. (°C): 160 / TIMER
target raw corrected

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (g mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
1	NA	X047	F710349-BUK1	D	0.5432	Ben Chips (BC)	/	
2	NA	X114	F710349-BUK2	D	0.6464	BC	/	
3	N4106	T11001	F710349-B51	D	0.6977	BC	/	
4	X196	X066	F710349-BSD1	D	0.7932	BC	/	
5	NA	N428	M10375-03	A	1.0572	Powder (P)	/	
6	NA	X1106	M10375-03DUP1	A	1.0316	P	/	
7	NA	X069	M10375-03MS112	A	1.0054	P	/	
8	N459	N380	M10375-03MSD1	A	1.0447	P	/	
9	X142	N378	M10443-01	A	1.2988	Food (F)	/	

Initials: MMP

Spike Name	SW	Volume (µL)	LIMS ID	Pipette ID	Cal. Date
Prep Spike 1	<input checked="" type="checkbox"/>	50	1703595	512664	10/11/2017
Prep Spike 2	<input checked="" type="checkbox"/>	50	1703596		
TH ₂	<input checked="" type="checkbox"/>	50	1705878		
	<input type="checkbox"/>				
	<input type="checkbox"/>				

Preparation Method SOP: EFGS-141		
Reagent	Volume (mL)	LIMS ID
HNO ₃	7.5	1705679

1 Combined Spike ID: A-L = 1705879 ; Batches: F710334/349/351
2 Combined Spike ID: = ; Batches: _____

Batch continued on next page? Yes No

Ceutical Digestions

Batch (TM / Hg) (circle one): F710334/351 Boiling Chip Lot # 27569094

Batch continued on next page? Yes No

1° Tech.: _____ 2° Tech.: _____ Date/Time In: _____

Date/Time Out: _____

Spiked By: _____ Spike Witness (SW): _____

Final Vol. (mL)/Initials/Date: _____

Balance ID/Cal.? (Y/N): _____

Digestion: Oven ID: _____ Other ID: _____

Vial Type: 50 mL Centrifuge Tube Teflon

Analysis: ICP-MS CV-AFS
 LC-ICP-MS Other: _____

Thermometer ID: _____ Initial: Temp. (°C): _____

target raw corrected

Final: Temp. (°C): _____

target raw corrected

See Pg 197

MMP 10/13/2017

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (<input type="checkbox"/> g <input type="checkbox"/> mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
1	NA	TH016	F710334-BLK1	D	0.6022	Beal Chips (BL)	/	
2	NA	X073	F710334-BLK2	D	0.9-0.6963	BC	/	
3	NA	X075	F710334-BS1	D	0.6246	BC	/	
4	NA	N442	F710334-BSD1	D	0.5916	BC	/	
5	NA	X117	M10456-01	A	2.0943	Powder (P)	/	
6	N382	TH031	M10456-01DUP1	A	2.0436	P	/	
7	NA	X168	M10456-01MS1	A	2.0093	P	/	
8	NA	TH058	M10456-01MSD1	A	2.0268	P	/	
9	NA	N355	M10457-01	A	0.5502	0.1107	/	

See Pg 197

Initials: MMP

Spike Name	SW	Volume (µL)	LIMS ID	Pipette ID	Cal. Date
	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				

Preparation Method SOP: EFGS-		
Reagent	Volume (mL)	LIMS ID

MMP 10/13/2017

1 Combined Spike ID: _____ ; Batches: _____
 2 Combined Spike ID: _____ ; Batches: _____

Batch continued on next page? Yes No

Ceutical Digestions

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (□g □mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
10	NA	X111	1710452-01MSDZ	A	0.6656	O	/	
11	NA	N432	1710452-01MSDZ	A	0.5821	O	/	
12	X165	X022	1709717-01RE1	B	1.2623	Food (F)	/	
13	NA	X181	1709717-02RE1	B	1.1042	F	/	
14	TH058	X179	1709717-03RE1	B	1.0494	F	/	Dry MRP 10/16/2017
15	NA	X006	1709717-04RE1	B	1.0970	F	/	
16	NA	N379	1709717-05	B	1.0420	F	/	
17	NA	N367	1709717-06RE1	B	1.0867	F	/	
18	NA	N424	1709717-07RE1	B	1.0337	F	/	
19	NA	N365	1709717-08RE1	B	1.1661	F	/	
20	TH036	TH056	1709761-06RE1	A	1.1411	1 cap.	/	
21	X188	N387	1709761-01RE1	A	0.9479	1 cap.	/	
22	NA	N390	1709778-01RE1	A	0.8742	1 cap.	/	
23	NA	TH021	1709780-03RE1	B	1.2636	F	/	
24	NA	X174	1710453-01	A	0.5158	Gel	/	Dry MRP 10/16/2017
25	NA	N459	1710455-01	A	2.0400	P	/	
26	NA	N416	1710459-01	A	0.5450	Cream (C)	/	
27	NA	X105	1710459-02	A	0.6186	C	/	
28	X192	TH005	1710459-03	A	0.5606	MRP 10/13/2017 Gel	/	
29	NA	X090	1710461-01	A	0.5830	C	/	
30								
31								
32								
33								
34								

Initials: MP

Density by EFGS-019

Required? Yes No

Batch ID: _____

Density = [(D-C)/B]

A: Sample ID / Flask ID	B: Volume (mL)	C: Flask mass (g)	D: Flask + sample (g)	Density (g/mL)
/				
/				
/				
/				

ANALYSIS SEQUENCE

QUALITY ASSURANCE
PEER-REVIEWED

7J18021

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R* 10/10/17
Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18021-IBL1 ✓	QC	1			
7J18021-IBL2 ✓	QC	2			
7J18021-IBL3 ✓	QC	3			
7J18021-CAL1 ✓	QC	4	1704505 ✓		
7J18021-CAL2 ✓	QC	5	1704506 ✓		
7J18021-CAL3 ✓	QC	6	1704507 ✓		
7J18021-CAL4 ✓	QC	7	1704508 ✓		
7J18021-CAL5 ✓	QC	8	1704509 ✓		
7J18021-ICV1 ✓	QC	9	1705628 ✓		
F710376-BLK1 ✓	QC	10			
F710376-BLK2 ✓	QC	11			
F710376-BLK3 ✓	QC	12			
F710376-BLK4 ✓	QC	13			
F710376-BLK5 ✓	QC	14			
F710376-BLK6 ✓	QC	15			
1710146-01 ✓	Hg-CVAFS-W-1631-WI DNR	16			
1710146-02 ✓	Hg-CVAFS-W-1631-WI DNR	17			
1710329-01 ✓	Hg-CVAFS-W-1631-WI DNR	18			
1710329-02 ✓	Hg-CVAFS-W-1631-WI DNR	19			
7J18021-CCV1 ✓	QC	20	1705628 ✓		
7J18021-CCB1 ✓	QC	21			
F710376-BS1 ✓	QC	22			
F710376-BSD1 ✓	QC	23			
F710376-DUP1 ✓	QC	24			
F710376-MS1 ✓	QC	25			
F710376-MSD1 ✓	QC	26			
7J18021-CCV2 ✓	QC	27	1705628 ✓		
7J18021-CCB2 ✓	QC	28			

Becky 10/18/17 *Becky* 10/18/17
 Samples Loaded By Date Data Processed By Date

10/17/17
2:00

PREPARATION BENCH SHEET

F710376

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710376-BLK1	Blank	100	101					Source: 1710146-03
F710376-BLK2	Blank	100	101					Source: 1710146-03
F710376-BLK3	Blank	100	101					Source: 1710146-03
F710376-BLK4	Blank	100	101					Source: 1710329-03
F710376-BLK5	Blank	100	101					Source: 1710329-03
F710376-BLK6	Blank	100	101					Source: 1710329-03
F710376-BS1	LCS	50	50.5	1705054	100			
F710376-BSD1	LCS Dup	50	50.5	1705054	100			
F710376-DUP1	Duplicate [1710329-01] ✓	100	101					
F710376-MS1	Matrix Spike [1710329-01] ✓	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL ✓
F710376-MSD1	Matrix Spike Dup [1710329-01] ✓	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL ✓

<u>Standard ID(s):</u>	<u>Description:</u>
1704422	THg 10ng/mL Calibration Standard
1705054	Nist 1641D 200X

<u>Expiration:</u>
21-Oct-17 00:00
21-Aug-18 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705580	0.2 N BRCL SEPTEMBER 2017	14-Mar-18 00:00
1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
1705961	3% SnCl2 THg reductant	25-Mar-18 00:00

PREPARATION BENCH SHEET

F710376

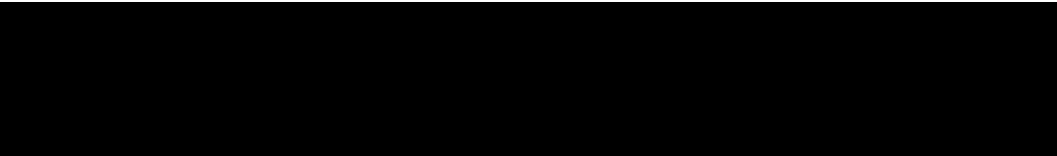
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710146-01	1710047-03 Monthly Effluent Mercury	100	101	-	-	-	Preservation Blank Created	
1710146-02	1710047-04 Monthly Effluent Mercury Blank	100	101	-	-	-	Preservation Blank Created	
1710329-01	1710150-01 Johnson Controls Outfall-Hg	100	101	-	-	-	Preservation Blank created	
1710329-02	1710150-02 Johnson Controls Outfall-Hg (Blank)	100	101	-	-	-	Preservation Blank created	



PREPARATION BENCH SHEET

2000-2
10/17/17 BC

F710376

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710376-BLK1	Blank	100	101					1710146-013 IX
F710376-BLK2	Blank	100	101					IX
F710376-BLK3	Blank	100	101					IX
F710376-BLK4	Blank	100	101					1710329-013 IX
F710376-BLK5	Blank	100	101					IX
F710376-BLK6	Blank	100	101					IX
F710376-BLK7	Blank	100	101					1710329
F710376-BLK8	Blank	100	101					
F710376-BLK9	Blank	100	101					
F710376-BS1	LCS	100	101	1705054	100			IX
F710376-BSD1	LCS Dup	100	101	1705054	100			IX
F710376-DUP1	Duplicate 1710329 01	100	101					IX
F710376-MS1	Matrix Spike 1710329 01	100	101	1704422	25			IX
F710376-MSD1	Matrix Spike Dup 1710329 01	100	101	1704422	25			IX

Standard ID(s): Description:

Expiration:

IX = 50 mL

1705610
1705611
1705461
1703102

PREPARATION BENCH SHEET

2600-2

10/17/17 BC

F710376

Eurofins Frontier Global Sciences, Inc.

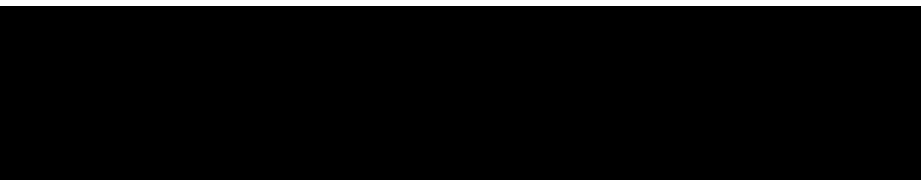
Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710146-01	1710047-03 Monthly Effluent Mercury	100	101	-	-	-	Preservation Blank Created	IX
1710146-02	1710047-04 Monthly Effluent Mercury Blank	100	101	-	-	-	Preservation Blank Created	IX
1710329-01	1710150-01 Johnson Controls Outfall-Hg	100	101	-	-	-	Preservation Blank created	IX
1710329-02	1710150-02 Johnson Controls Outfall-Hg (Blank)	100	101	-	-	-	Preservation Blank created	IX
1710388-01	1710188-01 Mayfair Semi-Annual	100	101	-	-	-	Preservation Blank Created	
1710388-02	1710188-02 Mayfair Semi-Annual - Blank	100	101	-	-	-	Preservation Blank Created	

010302
|
030206
|
010602
|
|



Total Mercury Preservation Logbook

cop 10/4/17

Initial preservation and/or verification

Technician: CSP Date: 10/4/17 Time Completed: 1730

Work Orders: ~~1710142~~ 1710142
1710143, 1710146

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1705580

Pipette SN: 507631

Cal. Date: 10/4/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710143-01A	300	3.00	y			
1710143-02A	300	3.00	y			
1710143-03A	300	3.00	y			
1710143-04A	300	3.00	y			
1710143-05A	300	3.00	y			
1710143-06A	300	3.00	y			
1710143-07A	300	3.00	y			
1710142-01A	300	3.00	y			
1710142-02A	300	3.00	y			
1710142-03A	300	3.00	y			
1710142-04A	300	3.00	y			
1710142-05B	10	10	y			
1710142-06A	300	3.00	y			
1710146-01A	300	3.00	y			
1710146-02A	300	3.00	y			
1710146-03A	300	3.00	y			
CSP 10/4/17						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
10/5/17 DM

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 10/11/17 Time Completed: 19:00

Work Orders: 1710328
1710324, 1710329, 1710276

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1705580

Pipette SN: 307631

Cal. Date: 10/9/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710328-24A	250	2.50	Y			
1710324-01A	250	2.50	Y			
1710329-01A	300	3.00	Y			
1710329-02A	300	3.00	Y			
1710329-03A	300	3.00	Y			
1710276-01A	600	6.00	Y			
1710276-02A	600	6.00+6.00	Y			
1710276-03A	600	6.00	Y			

LM 10/11/17

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J18019, 7J18020, 7J18021
Reviewer: 0 <i>PL 10/18/17</i>	Dataset ID(s): THg26002-171017-1
Date: 10/18/2017	WO (s) #: 0
Batch #(s): F710376, F710215, F710291, F710351	0

Analyst Initials BC Reviewer Initials PL 10/18/17

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: _____
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: _____
- (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
- (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
- (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
- (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J18019, 7J18020, 7J18021
Reviewer: 0 <i>R 10/10/17</i>	Dataset ID(s): THg26002-171017-1
Date: 10/18/2017	WO (s) #: 0
Batch #(s): F710376, F710215, F710291, F710351	0

Analyst Initials *BC* **Reviewer Initials** *R 10/10/17*

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
- Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs**
- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/11/17, 1/27/17 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 7/28/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 7/28/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.



Frontier Global Sciences

THg26003-171017-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 17, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7J18016, 7J18017

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	91.84 units	183.68	85.83 units	171.66	106.1 %Rec
SEQ-CAL2	1	1.00 ng/L	170.29 units	170.29	164.28 units	164.28	101.6 %Rec
SEQ-CAL3	1	5.00 ng/L	817.04 units	163.41	811.03 units	162.21	100.3 %Rec
SEQ-CAL4	1	20.00 ng/L	3117.67 units	155.88	3111.66 units	155.58	96.2 %Rec
SEQ-CAL5	1	40.00 ng/L	6208.21 units	155.21	6202.20 units	155.06	95.9 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 161.76 +/- 6.85 4.2% RSD 165.69

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.01 units	±1.62	0.04 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	4.319 ng/L	±1.054
BLK	2	3	7.507 ng/L	±1.674
BLK	3	3	3.424 ng/L	±1.215
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: PL 10/18/18

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	CAL	SEQ-IBL1	1	10/17/2017 8:47:42	77842-1.RAW	8:47:42 AM	4.52			-1.5	-0.009	-0.009	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	10/17/2017 8:51:50	77843-1.RAW	8:51:50 AM	5.77			-0.2	-0.001	-0.001	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	10/17/2017 8:55:59	77844-1.RAW	8:55:59 AM	7.74			1.7	0.011	0.011	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	10/17/2017 9:00:07	77845-1.RAW	9:00:07 AM	91.84			85.8	0.531	0.531	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	10/17/2017 9:04:16	77846-1.RAW	9:04:16 AM	170.29			164.3	1.016	1.016	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	10/17/2017 9:08:24	77847-1.RAW	9:08:24 AM	817.04			811.0	5.014	5.014	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	10/17/2017 9:12:33	77848-1.RAW	9:12:33 AM	3117.67			3111.7	19.237	19.237	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	10/17/2017 9:16:41	77849-1.RAW	9:16:41 AM	6208.21			6202.2	38.343	38.343	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	10/17/2017 9:20:49	77850-1.RAW	9:20:49 AM	813.45			807.4	4.992	4.992	ng/L	
Hg2600-3	BC	SAM	ws		10/17/2017 9:45:14	77851-1.RAW	9:45:14 AM	75.68		X	69.7	0.431	0.000	ng/L	
Hg2600-3	BC	BLK	F710347-BLK1	100	10/17/2017 9:49:22	77852-1.RAW	9:49:22 AM	14.53	1		8.5	0.053	5.267	ng/L	
Hg2600-3	BC	BLK	F710347-BLK2	100	10/17/2017 9:53:30	77853-1.RAW	9:53:30 AM	11.16	1		5.2	0.032	3.184	ng/L	
Hg2600-3	BC	BLK	F710347-BLK3	100	10/17/2017 9:57:39	77854-1.RAW	9:57:39 AM	13.30	1		7.3	0.045	4.507	ng/L	
Hg2600-3	BC	SAM	F710347-BS1	400	10/17/2017 10:01:47	77855-1.RAW	10:01:47 AM	1953.32	1		1947.3	12.028	4811.083	ng/L	
Hg2600-3	BC	SAM	F710347-BSD1	400	10/17/2017 10:05:56	77856-1.RAW	10:05:56 AM	2058.41	1		2052.4	12.677	5070.954	ng/L	
Hg2600-3	BC	SAM	1710398-13	100	10/17/2017 10:10:04	77857-1.RAW	10:10:04 AM	151.96	1		146.0	0.859	85.909	ng/L	
Hg2600-3	BC	SAM	1710398-14	100	10/17/2017 10:14:12	77858-1.RAW	10:14:12 AM	148.92	1		142.9	0.840	84.029	ng/L	
Hg2600-3	BC	SAM	1710398-15	100	10/17/2017 10:18:21	77859-1.RAW	10:18:21 AM	141.30	1		135.3	0.793	79.319	ng/L	
Hg2600-3	BC	SAM	1710398-16	100	10/17/2017 10:22:29	77860-1.RAW	10:22:29 AM	134.96	1		129.0	0.754	75.399	ng/L	
Hg2600-3	BC	SAM	1710398-17	100	10/17/2017 10:26:38	77861-1.RAW	10:26:38 AM	177.41	1		171.4	1.016	101.642	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	10/17/2017 10:30:46	77862-1.RAW	10:30:46 AM	810.49			804.5	4.973	4.973	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	10/17/2017 10:34:55	77863-1.RAW	10:34:55 AM	10.96			5.0	0.031	0.031	ng/L	
Hg2600-3	BC	SAM	1710398-18	100	10/17/2017 10:39:03	77864-1.RAW	10:39:03 AM	26.85	1		20.8	0.086	8.564	ng/L	
Hg2600-3	BC	SAM	1710398-19	100	10/17/2017 10:43:11	77865-1.RAW	10:43:11 AM	20.83	1		14.8	0.048	4.843	ng/L	
Hg2600-3	BC	SAM	1710398-20	100	10/17/2017 10:47:20	77866-1.RAW	10:47:20 AM	20.15	1		14.1	0.044	4.422	ng/L	
Hg2600-3	BC	SAM	1710398-21	100	10/17/2017 10:51:28	77867-1.RAW	10:51:28 AM	25.11	1		19.1	0.075	7.489	ng/L	
Hg2600-3	BC	SAM	1710398-22	100	10/17/2017 10:55:37	77868-1.RAW	10:55:37 AM	22.33	1		16.3	0.058	5.770	ng/L	
Hg2600-3	BC	SAM	1710398-23	100	10/17/2017 10:59:45	77869-1.RAW	10:59:45 AM	24.16	1		18.2	0.069	6.901	ng/L	
Hg2600-3	BC	SAM	1710398-24	100	10/17/2017 11:03:54	77870-1.RAW	11:03:54 AM	22.43	1		16.4	0.058	5.832	ng/L	
Hg2600-3	BC	SAM	1710398-25	100	10/17/2017 11:08:02	77871-1.RAW	11:08:02 AM	24.29	1		18.3	0.070	6.982	ng/L	
Hg2600-3	BC	SAM	1710398-26	100	10/17/2017 11:12:10	77872-1.RAW	11:12:10 AM	27.25	1		21.2	0.088	8.812	ng/L	
Hg2600-3	BC	SAM	1710398-27	100	10/17/2017 11:16:19	77873-1.RAW	11:16:19 AM	27.27	1		21.3	0.088	8.824	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	10/17/2017 11:20:27	77874-1.RAW	11:20:27 AM	814.78			808.8	5.000	5.000	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	10/17/2017 11:24:36	77875-1.RAW	11:24:36 AM	8.78			2.8	0.017	0.017	ng/L	
Hg2600-3	BC	SAM	1710398-13B	100	10/17/2017 11:28:44	77876-1.RAW	11:28:44 AM	13.43	1		7.4	0.003	0.268	ng/L	
Hg2600-3	BC	SAM	1710398-14B	100	10/17/2017 11:32:52	77877-1.RAW	11:32:52 AM	11.04	1		5.0	-0.012	-1.210	ng/L	
Hg2600-3	BC	SAM	1710398-15B	100	10/17/2017 11:37:01	77878-1.RAW	11:37:01 AM	15.10	1		9.1	0.013	1.300	ng/L	
Hg2600-3	BC	SAM	1710398-16B	100	10/17/2017 11:41:09	77879-1.RAW	11:41:09 AM	16.87	1		10.9	0.024	2.395	ng/L	
Hg2600-3	BC	SAM	1710398-17B	100	10/17/2017 11:45:18	77880-1.RAW	11:45:18 AM	16.77	1		10.8	0.023	2.333	ng/L	
Hg2600-3	BC	SAM	1710398-18B	100	10/17/2017 11:49:26	77881-1.RAW	11:49:26 AM	14.20	1		8.2	0.007	0.744	ng/L	
Hg2600-3	BC	SAM	1710398-19B	100	10/17/2017 11:53:35	77882-1.RAW	11:53:35 AM	16.66	1		10.7	0.023	2.265	ng/L	
Hg2600-3	BC	SAM	1710398-20B	100	10/17/2017 11:57:43	77883-1.RAW	11:57:43 AM	16.66	1		10.7	0.023	2.265	ng/L	
Hg2600-3	BC	SAM	1710398-21B	100	10/17/2017 12:01:51	77884-1.RAW	12:01:51 PM	18.74	1		12.7	0.036	3.551	ng/L	
Hg2600-3	BC	SAM	1710398-22B	100	10/17/2017 12:06:00	77885-1.RAW	12:06:00 PM	21.93	1		15.9	0.055	5.523	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	10/17/2017 12:10:08	77886-1.RAW	12:10:08 PM	795.95			789.9	4.884	4.884	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	10/17/2017 12:14:17	77887-1.RAW	12:14:17 PM	8.83			2.8	0.017	0.017	ng/L	
Hg2600-3	BC	SAM	1710398-23B	100	10/17/2017 12:18:25	77888-1.RAW	12:18:25 PM	16.16	1		10.2	0.020	1.956	ng/L	
Hg2600-3	BC	SAM	1710398-24B	100	10/17/2017 12:22:33	77889-1.RAW	12:22:33 PM	12.59	1		6.6	-0.003	-0.251	ng/L	
Hg2600-3	BC	SAM	1710398-25B	100	10/17/2017 12:26:42	77890-1.RAW	12:26:42 PM	18.13	1		12.1	0.032	3.173	ng/L	
Hg2600-3	BC	SAM	1710398-26B	100	10/17/2017 12:30:50	77891-1.RAW	12:30:50 PM	14.02	1		8.0	0.006	0.633	ng/L	
Hg2600-3	BC	SAM	1710398-27B	100	10/17/2017 12:34:59	77892-1.RAW	12:34:59 PM	16.44	1		10.4	0.021	2.129	ng/L	
Hg2600-3	BC	SAM	F710347-DUP1	100	10/17/2017 12:39:07	77893-1.RAW	12:39:07 PM	175.71	1		169.7	1.006	100.591	ng/L	
Hg2600-3	BC	SAM	F710347-MS1	100	10/17/2017 12:43:16	77894-1.RAW	12:43:16 PM	571.80	1		565.8	3.455	345.459	ng/L	
Hg2600-3	BC	SAM	F710347-MSD1	100	10/17/2017 12:47:24	77895-1.RAW	12:47:24 PM	580.46	1		574.5	3.508	350.813	ng/L	
Hg2600-3	BC	SAM	F710347-MS2	100	10/17/2017 12:51:32	77896-1.RAW	12:51:32 PM	995.64	1		989.6	6.075	607.482	ng/L	
Hg2600-3	BC	SAM	F710347-MSD2	100	10/17/2017 12:55:41	77897-1.RAW	12:55:41 PM	1006.15	1		1000.1	6.140	613.979	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	10/17/2017 12:59:49	77898-1.RAW	12:59:49 PM	834.23			828.2	5.120	5.120	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	CAL	SEQ-CCB4	1	10/17/2017 13:03:58	77899-1.RAW	1:03:58 PM	18.66			12.7	0.078	0.078	ng/L	
Hg2600-3	BC	BLK	F710363-BLK1	100	10/17/2017 13:08:06	77900-1.RAW	1:08:06 PM	16.38	2		10.4	0.064	6.411	ng/L	
Hg2600-3	BC	BLK	F710363-BLK2	100	10/17/2017 13:12:15	77901-1.RAW	1:12:15 PM	21.27	2		15.3	0.094	9.434	ng/L	
Hg2600-3	BC	BLK	F710363-BLK3	100	10/17/2017 13:16:23	77902-1.RAW	1:16:23 PM	16.81	2		10.8	0.067	6.677	ng/L	
Hg2600-3	BC	SAM	F710363-BS1	400	10/17/2017 13:20:31	77903-1.RAW	1:20:31 PM	743.87	2		737.9	4.543	1817.109	ng/L	
Hg2600-3	BC	SAM	F710363-BSD1	400	10/17/2017 13:24:40	77904-1.RAW	1:24:40 PM	737.61	2		731.6	4.504	1801.629	ng/L	
Hg2600-3	BC	SAM	1710474-01	1000	10/17/2017 13:28:48	77905-1.RAW	1:28:48 PM	2775.96	2		2770.0	17.117	17116.657	ng/L	
Hg2600-3	BC	SAM	1710474-02	1000	10/17/2017 13:32:57	77906-1.RAW	1:32:57 PM	2313.89	2		2307.9	14.260	14260.085	ng/L	
Hg2600-3	BC	SAM	1710475-01	1000	10/17/2017 13:37:05	77907-1.RAW	1:37:05 PM	1417.31	2		1411.3	8.717	8717.319	ng/L	
Hg2600-3	BC	SAM	1710475-02	1000	10/17/2017 13:41:13	77908-1.RAW	1:41:13 PM	1535.77	2		1529.8	9.450	9449.653	ng/L	
Hg2600-3	BC	SAM	1710475-03	400	10/17/2017 13:45:22	77909-1.RAW	1:45:22 PM	5269.62	2		5263.6	32.522	13008.601	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	10/17/2017 13:49:30	77910-1.RAW	1:49:30 PM	838.06			832.1	5.144	5.144	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	10/17/2017 13:53:39	77911-1.RAW	1:53:39 PM	27.10			21.9	0.135	0.135	ng/L	
Hg2600-3	BC	SAM	1710475-04	400	10/17/2017 13:57:47	77912-1.RAW	1:57:47 PM	8412.11	2		8406.1	51.949	20779.501	ng/L	
Hg2600-3	BC	SAM	ws		10/17/2017 14:03:08	77914-1.RAW	2:03:08 PM	118.98		X	113.0	0.698	0.000	ng/L	
Hg2600-3	BC	SAM	1710476-01	2500	10/17/2017 14:07:16	77913-2.RAW	2:07:16 PM	3513.96	2		3508.0	21.684	54208.915	ng/L	
Hg2600-3	BC	SAM	1710476-02	2500	10/17/2017 14:11:24	77915-1.RAW	2:11:24 PM	3323.30	2		3317.3	20.505	51262.208	ng/L	
Hg2600-3	BC	SAM	1710475-03RE1	1000	10/17/2017 14:15:33	77916-1.RAW	2:15:33 PM	2207.05	2		2201.0	13.600	13599.587	ng/L	
Hg2600-3	BC	SAM	1710475-04RE1	1000	10/17/2017 14:19:41	77917-1.RAW	2:19:41 PM	3493.65	2		3487.6	21.554	21553.503	ng/L	
Hg2600-3	BC	SAM	1710474-01B	100	10/17/2017 14:23:50	77918-1.RAW	2:23:50 PM	52.24	2		46.2	0.211	21.073	ng/L	
Hg2600-3	BC	SAM	1710474-02B	100	10/17/2017 14:27:58	77919-1.RAW	2:27:58 PM	54.32	2		48.3	0.224	22.359	ng/L	
Hg2600-3	BC	SAM	1710475-01B	100	10/17/2017 14:32:06	77920-1.RAW	2:32:06 PM	24.65	2		18.6	0.040	4.016	ng/L	
Hg2600-3	BC	SAM	1710475-02B	100	10/17/2017 14:36:15	77921-1.RAW	2:36:15 PM	31.58	2		25.6	0.083	8.301	ng/L	
Hg2600-3	BC	SAM	1710475-03B	100	10/17/2017 14:40:24	77922-1.RAW	2:40:24 PM	20.84	2		14.8	0.017	1.661	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	10/17/2017 14:44:32	77923-1.RAW	2:44:32 PM	809.27			803.3	4.966	4.966	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	10/17/2017 14:48:41	77924-1.RAW	2:48:41 PM	20.24			14.2	0.088	0.088	ng/L	
Hg2600-3	BC	SAM	1710475-04B	100	10/17/2017 14:52:50	77925-1.RAW	2:52:50 PM	26.46	2		20.5	0.051	5.135	ng/L	
Hg2600-3	BC	SAM	1710476-01B	100	10/17/2017 14:56:58	77926-1.RAW	2:56:58 PM	210.83	2		204.8	1.191	119.115	ng/L	
Hg2600-3	BC	SAM	1710476-02B	100	10/17/2017 15:01:07	77927-1.RAW	3:01:07 PM	103.90	2		97.9	0.530	53.010	ng/L	
Hg2600-3	BC	SAM	1710474-01C	2500	10/17/2017 15:05:15	77928-1.RAW	3:05:15 PM	1714.54	2		1708.5	10.559	26398.338	ng/L	
Hg2600-3	BC	SAM	1710474-02C	2500	10/17/2017 15:09:24	77929-1.RAW	3:09:24 PM	1702.42	2		1696.4	10.484	26211.020	ng/L	
Hg2600-3	BC	SAM	1710475-01C	2500	10/17/2017 15:13:32	77930-1.RAW	3:13:32 PM	1687.77	2		1681.8	10.394	25984.600	ng/L	
Hg2600-3	BC	SAM	1710475-02C	2500	10/17/2017 15:17:40	77931-1.RAW	3:17:40 PM	1751.16	2		1745.2	10.786	26964.311	ng/L	
Hg2600-3	BC	SAM	1710475-03C	2500	10/17/2017 15:21:49	77932-1.RAW	3:21:49 PM	1781.42	2		1775.4	10.973	27431.988	ng/L	
Hg2600-3	BC	SAM	1710475-04C	2500	10/17/2017 15:25:57	77933-1.RAW	3:25:57 PM	1704.14	2		1698.1	10.495	26237.603	ng/L	
Hg2600-3	BC	SAM	1710476-01C	5000	10/17/2017 15:30:06	77934-1.RAW	3:30:06 PM	3418.38	2		3412.4	21.094	105470.902	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	10/17/2017 15:34:14	77935-1.RAW	3:34:14 PM	866.03			860.0	5.317	5.317	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	10/17/2017 15:38:22	77936-1.RAW	3:38:22 PM	26.01			20.0	0.124	0.124	ng/L	
Hg2600-3	BC	SAM	1710476-02C	5000	10/17/2017 15:42:31	77937-1.RAW	3:42:31 PM	3283.44	2		3277.4	20.260	101299.826	ng/L	
Hg2600-3	BC	SAM	F710363-DUP1	1000	10/17/2017 15:46:39	77938-1.RAW	3:46:39 PM	1336.78	2		1330.8	8.219	8219.473	ng/L	
Hg2600-3	BC	SAM	F710363-MS1	1000	10/17/2017 15:50:48	77939-1.RAW	3:50:48 PM	4604.52	2		4598.5	28.421	28421.035	ng/L	
Hg2600-3	BC	SAM	F710363-MSD1	1000	10/17/2017 15:54:56	77940-1.RAW	3:54:56 PM	4612.40	2		4606.4	28.470	28469.750	ng/L	
Hg2600-3	BC	BLK	F710292-BLK1	20	10/17/2017 15:59:05	77941-1.RAW	3:59:05 PM	44.31	3		38.3	0.237	4.736	ng/L	
Hg2600-3	BC	BLK	F710292-BLK2	20	10/17/2017 16:03:13	77942-1.RAW	4:03:13 PM	31.87	3		25.9	0.160	3.197	ng/L	
Hg2600-3	BC	BLK	F710292-BLK3	20	10/17/2017 16:07:21	77943-1.RAW	4:07:21 PM	24.92	3		18.9	0.117	2.338	ng/L	
Hg2600-3	BC	SAM	F710292-BS1	20	10/17/2017 16:11:30	77944-1.RAW	4:11:30 PM	909.39	3		903.4	5.414	108.272	ng/L	
Hg2600-3	BC	SAM	F710292-BSD1	20	10/17/2017 16:15:38	77945-1.RAW	4:15:38 PM	849.97	3		844.0	5.046	100.926	ng/L	
Hg2600-3	BC	SAM	F710292-BS2	400	10/17/2017 16:19:47	77946-1.RAW	4:19:47 PM	944.78	3		938.8	5.795	2318.012	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	10/17/2017 16:23:55	77947-1.RAW	4:23:55 PM	829.05			823.0	5.088	5.088	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8	1	10/17/2017 16:28:04	77948-1.RAW	4:28:04 PM	21.38			15.4	0.095	0.095	ng/L	
Hg2600-3	BC	SAM	1709630-19	100	10/17/2017 16:32:12	77949-1.RAW	4:32:12 PM	1749.60	3		1743.6	10.745	1074.485	ng/L	
Hg2600-3	BC	SAM	1709630-20	100	10/17/2017 16:36:20	77950-1.RAW	4:36:20 PM	1794.79	3		1788.8	11.024	1102.422	ng/L	
Hg2600-3	BC	SAM	1709631-01	100	10/17/2017 16:40:29	77951-1.RAW	4:40:29 PM	1800.76	3		1794.8	11.061	1106.112	ng/L	
Hg2600-3	BC	SAM	1709631-02	100	10/17/2017 16:44:37	77952-1.RAW	4:44:37 PM	1633.66	3		1627.7	10.028	1002.809	ng/L	
Hg2600-3	BC	SAM	1709631-03	100	10/17/2017 16:48:46	77953-1.RAW	4:48:46 PM	1592.90	3		1586.9	9.776	977.611	ng/L	
Hg2600-3	BC	SAM	1709631-04	100	10/17/2017 16:52:54	77954-1.RAW	4:52:54 PM	1572.30	3		1566.3	9.649	964.876	ng/L	
Hg2600-3	BC	SAM	1709631-06	100	10/17/2017 16:57:02	77955-1.RAW	4:57:02 PM	1786.66	3		1780.7	10.974	1097.396	ng/L	
Hg2600-3	BC	SAM	1709631-07	100	10/17/2017 17:01:11	77956-1.RAW	5:01:11 PM	1393.54	3		1387.5	8.544	854.364	ng/L	
Hg2600-3	BC	SAM	1709631-08	100	10/17/2017 17:05:19	77957-1.RAW	5:05:19 PM	1524.18	3		1518.2	9.351	935.127	ng/L	
Hg2600-3	BC	SAM	1709631-09	100	10/17/2017 17:09:28	77958-1.RAW	5:09:28 PM	2252.91	3		2246.9	13.856	1385.637	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV9	1	10/17/2017 17:13:36	77959-1.RAW	5:13:36 PM	836.51			830.5	5.134	5.134	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB9	1	10/17/2017 17:17:45	77960-1.RAW	5:17:45 PM	27.32			21.3	0.132	0.132	ng/L	
Hg2600-3	BC	SAM	1709631-10	100	10/17/2017 17:21:53	77961-1.RAW	5:21:53 PM	1562.89	3		1556.9	9.591	959.058	ng/L	
Hg2600-3	BC	SAM	1709631-11	100	10/17/2017 17:26:01	77962-1.RAW	5:26:01 PM	1514.50	3		1508.5	9.291	929.143	ng/L	
Hg2600-3	BC	SAM	1709631-12	100	10/17/2017 17:30:10	77963-1.RAW	5:30:10 PM	1817.55	3		1811.5	11.165	1116.492	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	SAM	1709631-13	100	10/17/2017 17:34:18	77964-1.RAW	5:34:18 PM	1998.03	3		1992.0	12.281	1228.067	ng/L	
Hg2600-3	BC	SAM	F710292-DUP1	100	10/17/2017 17:38:27	77965-1.RAW	5:38:27 PM	1443.31	3		1437.3	8.851	885.132	ng/L	
Hg2600-3	BC	SAM	F710292-MS1	400	10/17/2017 17:42:35	77966-1.RAW	5:42:35 PM	2363.40	3		2357.4	14.565	5826.044	ng/L	
Hg2600-3	BC	SAM	F710292-MSD1	400	10/17/2017 17:46:43	77967-1.RAW	5:46:43 PM	2367.90	3		2361.9	14.593	5837.172	ng/L	
Hg2600-3	BC	SAM	F710292-MS2	400	10/17/2017 17:50:52	77968-1.RAW	5:50:52 PM	2413.54	3		2407.5	14.875	5950.032	ng/L	
Hg2600-3	BC	SAM	F710292-MSD2	400	10/17/2017 17:55:00	77969-1.RAW	5:55:00 PM	2359.07	3		2353.1	14.538	5815.336	ng/L	
Hg2600-3	BC	SAM	1709631-09RE1	100	10/17/2017 17:59:09	77970-1.RAW	5:59:09 PM	2151.61	3		2145.6	13.230	1323.012	ng/L	
Hg2600-3	BC	CAL	SEQ-CCVA	1	10/17/2017 18:03:17	77971-1.RAW	6:03:17 PM	852.67			846.7	5.234	5.234	ng/L	
Hg2600-3	BC	CAL	SEQ-CCBA	1	10/17/2017 18:07:25	77972-1.RAW	6:07:25 PM	31.51			25.5	0.158	0.158	ng/L	
Hg2600-3	BC	SAM	EFGS07879 18000NG	5000	10/17/2017 18:16:31	77973-1.RAW	6:16:31 PM	5607.30		X	5601.3	34.628	173139.244	ng/L	
Hg2600-3	BC	SAM	EFGS03781 18000NG	5000	10/17/2017 18:20:39	77974-1.RAW	6:20:39 PM	5747.27		X	5741.3	35.493	177465.801	ng/L	
Hg2600-3	BC	SAM	EFGS07230 12000NG	5000	10/17/2017 18:24:47	77975-1.RAW	6:24:47 PM	3714.82		X	3708.8	22.928	114641.548	ng/L	
Hg2600-3	BC	SAM	EFGS09188 12000NG	5000	10/17/2017 18:28:56	77976-1.RAW	6:28:56 PM	3737.20		X	3731.2	23.067	115333.328	ng/L	
Hg2600-3	BC	CAL	SEQ-CCVB	1	10/17/2017 18:33:04	77977-1.RAW	6:33:04 PM	822.55			816.5	5.048	5.048	ng/L	
Hg2600-3	BC	CAL	SEQ-CCBB	1	10/17/2017 18:37:13	77978-1.RAW	6:37:13 PM	36.00			30.0	0.185	0.185	ng/L	

TotalMercury EPA1631
 Operat: BC
 BlankSi 6.0095
 Calib Eqn: 161.76
 Status: 1
 R²: 1
 Conc = (Area-6.009
 Run Date: #####
 QC Warnings:4/QC E
 Run Time: 18:12:21
 Blank SD: 1.622672304
 Blank RSD%: 27.00194353
 CF SD: 6.85097295
 CF RSD%: 4.235314069

Sample/ID	Location Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean			0.00		4.23				77837-1.RAW	8:28:17	684.55	Clean	OK	1
clean									77838-1.RAW	8:31:08	0.00	Clean	NP	1
ws			6.01	0.00					77839-1.RAW	8:35:17	5.97	Sample	OK	1
ws			6.01	0.00					77840-1.RAW	8:39:25	2.31	Sample	OK	1
ws									77841-1.RAW	8:43:34	0.00	Sample	NP	1
SEQ-IBL1	A1	1	0.00	0.03					77842-1.RAW	8:47:42	4.52	Sample	OK	1
SEQ-IBL2	A2	1	0.00	0.04					77843-1.RAW	8:51:50	5.77	Sample	OK	1
SEQ-IBL3	A3	1	0.00	0.05					77844-1.RAW	8:55:59	7.74	Sample	OK	1
SEQ-CAL1	A4	1	6.01	0.53			106.12		77845-1.RAW	9:00:07	91.84	Sample	OK	1
SEQ-CAL2	A5	1	6.01	1.02			101.56		77846-1.RAW	9:04:16	170.29	Sample	OK	1
SEQ-CAL3	A6	1	6.01	5.01			100.28		77847-1.RAW	9:08:24	817.04	Sample	OK	1
SEQ-CAL4	A7	1	6.01	19.24			96.18		77848-1.RAW	9:12:33	3117.67	Sample	OK	1
SEQ-CAL5	A8	1	6.01	38.34			95.86		77849-1.RAW	9:16:41	6208.21	Sample	FB	1
SEQ-ICV1	A9	1	6.01	4.99			99.83		77850-1.RAW	9:20:49	813.45	Sample	OK	1
ws			6.01	0.43					77851-1.RAW	9:45:14	75.68	Sample	OK	1
F710347-BLK1	A10	100	6.01	5.26					77852-1.RAW	9:49:22	14.53	Sample	OK	1
F710347-BLK2	A11	100	6.01	3.18					77853-1.RAW	9:53:30	11.16	Sample	OK	1
F710347-BLK3	A12	100	6.01	4.51					77854-1.RAW	9:57:39	13.30	Sample	OK	1
F710347-BS1	B1	400	6.01	4815.35					77855-1.RAW	10:01:47	1953.32	Sample	OK	1
F710347-BSD1	B2	400	6.01	5075.23					77856-1.RAW	10:05:56	2058.41	Sample	OK	1
1710398-13	B3	100	6.01	90.23					77857-1.RAW	10:10:04	151.96	Sample	OK	1
1710398-14	B4	100	6.01	88.35					77858-1.RAW	10:14:12	148.92	Sample	OK	1
1710398-15	B5	100	6.01	83.64					77859-1.RAW	10:18:21	141.30	Sample	OK	1
1710398-16	B6	100	6.01	79.72					77860-1.RAW	10:22:29	134.96	Sample	OK	1
1710398-17	B7	100	6.01	105.96					77861-1.RAW	10:26:38	177.41	Sample	OK	1
SEQ-CCV1	B8	1	6.01	4.97			99.47		77862-1.RAW	10:30:46	810.49	Sample	OK	1
SEQ-CCB1	B9	1	6.01	0.03			0.00		77863-1.RAW	10:34:55	10.96	Sample	OK	1
1710398-18	B10	100	6.01	12.88					77864-1.RAW	10:39:03	26.85	Sample	OK	1
1710398-19	B11	100	6.01	9.16					77865-1.RAW	10:43:11	20.83	Sample	OK	1
1710398-20	B12	100	6.01	8.74					77866-1.RAW	10:47:20	20.15	Sample	OK	1
1710398-21	C1	100	6.01	11.81					77867-1.RAW	10:51:28	25.11	Sample	OK	1
1710398-22	C2	100	6.01	10.09					77868-1.RAW	10:55:37	22.33	Sample	OK	1
1710398-23	C3	100	6.01	11.22					77869-1.RAW	10:59:45	24.16	Sample	OK	1
1710398-24	C4	100	6.01	10.15					77870-1.RAW	11:03:54	22.43	Sample	OK	1
1710398-25	C5	100	6.01	11.30					77871-1.RAW	11:08:02	24.29	Sample	OK	1
1710398-26	C6	100	6.01	13.13					77872-1.RAW	11:12:10	27.25	Sample	OK	1
1710398-27	C7	100	6.01	13.14					77873-1.RAW	11:16:19	27.27	Sample	OK	1
SEQ-CCV2	C8	1	6.01	5.00			100.00		77874-1.RAW	11:20:27	814.78	Sample	OK	1
SEQ-CCB2	C9	1	6.01	0.02			0.00		77875-1.RAW	11:24:36	8.78	Sample	OK	1
1710398-13B	C10	100	6.01	4.59					77876-1.RAW	11:28:44	13.43	Sample	OK	1
1710398-14B	C11	100	6.01	3.11					77877-1.RAW	11:32:52	11.04	Sample	OK	1
1710398-15B	C12	100	6.01	5.62					77878-1.RAW	11:37:01	15.10	Sample	OK	1
1710398-16B	D1	100	6.01	6.71					77879-1.RAW	11:41:09	16.87	Sample	OK	1
1710398-17B	D2	100	6.01	6.65					77880-1.RAW	11:45:18	16.77	Sample	OK	1

1710398-18B	D3	100	6.01	5.07		77881-1.RAW	11:49:26	14.20	Sample	OK	1
1710398-19B	D4	100	6.01	6.59		77882-1.RAW	11:53:35	16.66	Sample	OK	1
1710398-20B	D5	100	6.01	6.58		77883-1.RAW	11:57:43	16.66	Sample	OK	1
1710398-21B	D6	100	6.01	7.87		77884-1.RAW	12:01:51	18.74	Sample	OK	1
1710398-22B	D7	100	6.01	9.84		77885-1.RAW	12:06:00	21.93	Sample	OK	1
SEQ-CCV3	D8	1	6.01	4.88	97.67	77886-1.RAW	12:10:08	795.95	Sample	OK	1
SEQ-CCB3	D9	1	6.01	0.02	0.00	77887-1.RAW	12:14:17	8.83	Sample	OK	1
1710398-23B	D10	100	6.01	6.27		77888-1.RAW	12:18:25	16.16	Sample	OK	1
1710398-24B	D11	100	6.01	4.07		77889-1.RAW	12:22:33	12.59	Sample	OK	1
1710398-25B	D12	100	6.01	7.49		77890-1.RAW	12:26:42	18.13	Sample	OK	1
1710398-26B	A1	100	6.01	4.95		77891-1.RAW	12:30:50	14.02	Sample	OK	1
1710398-27B	A2	100	6.01	6.45		77892-1.RAW	12:34:59	16.44	Sample	OK	1
F710347-DUP1	A3	100	6.01	104.91		77893-1.RAW	12:39:07	175.71	Sample	OK	1
F710347-MS1	A4	100	6.01	349.78	330.25	77894-1.RAW	12:43:16	571.80	Sample	OK	1
F710347-MSD1	A5	100	6.01	355.13		77895-1.RAW	12:47:24	580.46	Sample	OK	1
F710347-MS2	A6	100	6.01	611.79	171.31	77896-1.RAW	12:51:32	995.64	Sample	OK	1
F710347-MSD2	A7	100	6.01	618.29		77897-1.RAW	12:55:41	1006.15	Sample	OK	1
SEQ-CCV4	A8	1	6.01	5.12	102.40	77898-1.RAW	12:59:49	834.23	Sample	OK	1
SEQ-CCB4	A9	1	6.01	0.08	0.00	77899-1.RAW	13:03:58	18.66	Sample	OK	1
F710363-BLK1	A10	100	6.01	6.41		77900-1.RAW	13:08:06	16.38	Sample	OK	1
F710363-BLK2	A11	100	6.01	9.43		77901-1.RAW	13:12:15	21.27	Sample	OK	1
F710363-BLK3	A12	100	6.01	6.68		77902-1.RAW	13:16:23	16.81	Sample	OK	1
F710363-BS1	B1	400	6.01	1824.61		77903-1.RAW	13:20:31	743.87	Sample	OK	1
F710363-BSD1	B2	400	6.01	1809.13		77904-1.RAW	13:24:40	737.61	Sample	OK	1
1710474-01	B3	1000	6.01	17123.98		77905-1.RAW	13:28:48	2775.96	Sample	OK	1
1710474-02	B4	1000	6.01	14267.44		77906-1.RAW	13:32:57	2313.89	Sample	OK	1
1710475-01	B5	1000	6.01	8724.76		77907-1.RAW	13:37:05	1417.31	Sample	OK	1
1710475-02	B6	1000	6.01	9457.06		77908-1.RAW	13:41:13	1535.77	Sample	OK	1
1710475-03	B7	400	6.01	13015.98		77909-1.RAW	13:45:22	5269.62	Sample	FB	1
SEQ-CCV5	B8	1	6.01	5.14	102.88	77910-1.RAW	13:49:30	838.06	Sample	OK	1
SEQ-CCB5	B9	1	6.01	0.14	0.00	77911-1.RAW	13:53:39	27.90	Sample	OK	1
1710475-04	B10	400	6.01	20786.81		77912-1.RAW	13:57:47	8412.11	Sample	FB	1
ws			6.01	0.70		77914-1.RAW	14:03:08	118.98	Sample	OK	1
1710476-01	B11	2500	6.01	54215.96		77913-2.RAW	14:07:16	3513.96	Sample	OK	1
1710476-02	B12	2500	6.01	51269.27		77915-1.RAW	14:11:24	3323.30	Sample	OK	1
1710475-03RE1	C1	1000	6.01	13606.99		77916-1.RAW	14:15:33	2207.05	Sample	OK	1
1710475-04RE1	C2	1000	6.01	21560.78		77917-1.RAW	14:19:41	3493.65	Sample	OK	1
1710474-01B	C3	100	6.01	28.58		77918-1.RAW	14:23:50	52.24	Sample	OK	1
1710474-02B	C4	100	6.01	29.86		77919-1.RAW	14:27:58	54.32	Sample	OK	1
1710475-01B	C5	100	6.01	11.52		77920-1.RAW	14:32:06	24.65	Sample	OK	1
1710475-02B	C6	100	6.01	15.81		77921-1.RAW	14:36:15	31.58	Sample	OK	1
1710475-03B	C7	100	6.01	9.17		77922-1.RAW	14:40:24	20.84	Sample	OK	1
SEQ-CCV6	C8	1	6.01	4.97	99.32	77923-1.RAW	14:44:32	809.27	Sample	OK	1
SEQ-CCB6	C9	1	6.01	0.09	0.00	77924-1.RAW	14:48:41	20.24	Sample	OK	1
1710475-04B	C10	100	6.01	12.64		77925-1.RAW	14:52:50	26.46	Sample	OK	1
1710476-01B	C11	100	6.01	126.62		77926-1.RAW	14:56:58	210.83	Sample	OK	1
1710476-02B	C12	100	6.01	60.52		77927-1.RAW	15:01:07	103.90	Sample	OK	1
1710474-01C	D1	2500	6.01	26405.59		77928-1.RAW	15:05:15	1714.54	Sample	OK	1
1710474-02C	D2	2500	6.01	26218.35		77929-1.RAW	15:09:24	1702.42	Sample	OK	1

1710475-01C	D3	2500	6.01	25991.91		77930-1.RAW	15:13:32	1687.77	Sample	OK	1
1710475-02C	D4	2500	6.01	26971.64		77931-1.RAW	15:17:40	1751.16	Sample	OK	1
1710475-03C	D5	2500	6.01	27439.30		77932-1.RAW	15:21:49	1781.42	Sample	OK	1
1710475-04C	D6	2500	6.01	26244.84		77933-1.RAW	15:25:57	1704.14	Sample	OK	1
1710476-01C	D7	5000	6.01	105477.57		77934-1.RAW	15:30:06	3418.38	Sample	FB	1
SEQ-CCV7	D8	1	6.01	5.32	106.33	77935-1.RAW	15:34:14	866.03	Sample	OK	1
SEQ-CCB7	D9	1	6.01	0.12	0.00	77936-1.RAW	15:38:22	26.01	Sample	OK	1
1710476-02C	D10	5000	6.01	101306.25		77937-1.RAW	15:42:31	3283.44	Sample	OK	1
F710363-DUP1	D11	1000	6.01	8226.90		77938-1.RAW	15:46:39	1336.78	Sample	OK	1
F710363-MS1	D12	1000	6.01	28428.28	345.51	77939-1.RAW	15:50:48	4604.52	Sample	OK	1
F710363-MSD1	A1	1000	6.01	28477.02		77940-1.RAW	15:54:56	4612.40	Sample	FB	1
F710292-BLK1	A2	20	6.01	4.74		77941-1.RAW	15:59:05	44.31	Sample	OK	1
F710292-BLK2	A3	20	6.01	3.20		77942-1.RAW	16:03:13	31.87	Sample	OK	1
F710292-BLK3	A4	20	6.01	2.34		77943-1.RAW	16:07:21	24.92	Sample	OK	1
F710292-BS1	A5	20	6.01	111.69		77944-1.RAW	16:11:30	909.39	Sample	OK	1
F710292-BSD1	A6	20	6.01	104.35		77945-1.RAW	16:15:38	849.97	Sample	OK	1
F710292-BS2	A7	400	6.01	2321.41		77946-1.RAW	16:19:47	944.78	Sample	OK	1
SEQ-CCV8	A8	1	6.01	5.09	101.76	77947-1.RAW	16:23:55	829.05	Sample	OK	1
SEQ-CCB8	A9	1	6.01	0.10	0.00	77948-1.RAW	16:28:04	21.38	Sample	OK	1
1709630-19	A10	100	6.01	1077.90		77949-1.RAW	16:32:12	1749.60	Sample	OK	1
1709630-20	A11	100	6.01	1105.83		77950-1.RAW	16:36:20	1794.79	Sample	OK	1
1709631-01	A12	100	6.01	1109.52		77951-1.RAW	16:40:29	1800.76	Sample	OK	1
1709631-02	B1	100	6.01	1006.22		77952-1.RAW	16:44:37	1633.66	Sample	OK	1
1709631-03	B2	100	6.01	981.03		77953-1.RAW	16:48:46	1592.90	Sample	OK	1
1709631-04	B3	100	6.01	968.29		77954-1.RAW	16:52:54	1572.30	Sample	OK	1
1709631-06	B4	100	6.01	1100.81		77955-1.RAW	16:57:02	1786.66	Sample	OK	1
1709631-07	B5	100	6.01	857.78		77956-1.RAW	17:01:11	1393.54	Sample	OK	1
1709631-08	B6	100	6.01	938.54		77957-1.RAW	17:05:19	1524.18	Sample	OK	1
1709631-09	B7	100	6.01	1389.05		77958-1.RAW	17:09:28	2252.91	Sample	FB	1
SEQ-CCV9	B8	1	6.01	5.13	102.68	77959-1.RAW	17:13:36	836.51	Sample	OK	1
SEQ-CCB9	B9	1	6.01	0.13	0.00	77960-1.RAW	17:17:45	27.32	Sample	OK	1
1709631-10	B10	100	6.01	962.47		77961-1.RAW	17:21:53	1562.89	Sample	OK	1
1709631-11	B11	100	6.01	932.56		77962-1.RAW	17:26:01	1514.50	Sample	OK	1
1709631-12	B12	100	6.01	1119.91		77963-1.RAW	17:30:10	1817.55	Sample	OK	1
1709631-13	C1	100	6.01	1231.48		77964-1.RAW	17:34:18	1998.03	Sample	FB	1
F710292-DUP1	C2	100	6.01	888.55		77965-1.RAW	17:38:27	1443.31	Sample	FB	1
F710292-MS1	C3	400	6.01	5829.41	655.32	77966-1.RAW	17:42:35	2363.40	Sample	OK	1
F710292-MSD1	C4	400	6.01	5840.55		77967-1.RAW	17:46:43	2367.90	Sample	OK	1
F710292-MS2	C5	400	6.01	5953.41	101.90	77968-1.RAW	17:50:52	2413.54	Sample	OK	1
F710292-MSD2	C6	400	6.01	5818.70		77969-1.RAW	17:55:00	2359.07	Sample	OK	1
1709631-09RE1	C9	100	6.01	1326.42		77970-1.RAW	17:59:09	2151.61	Sample	OK	1
SEQ-CCVA	C7	1	6.01	5.23		77971-1.RAW	18:03:17	852.67	Sample	OK	1
SEQ-CCBA	C8	1	6.01	0.16		77972-1.RAW	18:07:25	31.51	Sample	OK	1
EFGS07879 180(A1		5000	6.01	173137.53		77973-1.RAW	18:16:31	5607.30	Sample	FB	1
EFGS03781 180(A2		5000	6.01	177464.26		77974-1.RAW	18:20:39	5747.27	Sample	FB	1
EFGS07230 120(A3		5000	6.01	114640.53		77975-1.RAW	18:24:47	3714.82	Sample	OK	1
EFGS09188 120(A4		5000	6.01	115332.38		77976-1.RAW	18:28:56	3737.20	Sample	OK	1
SEQ-CCVB	A5	1	6.01	5.05		77977-1.RAW	18:33:04	822.55	Sample	OK	1
SEQ-CCBB	A6	1	6.01	0.19		77978-1.RAW	18:37:13	36.00	Sample	OK	1

ANALYSIS SEQUENCE QUALITY ASSURANCE

7J18016

PEER-REVIEWED

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *R 10/10/17*
 Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18016-IBL1 ✓	QC	1			
7J18016-IBL2 ✓	QC	2			
7J18016-IBL3 ✓	QC	3			
7J18016-CAL1 ✓	QC	4	1704505 ✓		
7J18016-CAL2 ✓	QC	5	1704506 ✓		
7J18016-CAL3 ✓	QC	6	1704507 ✓		
7J18016-CAL4 ✓	QC	7	1704508 ✓		
7J18016-CAL5 ✓	QC	8	1704509 ✓		
7J18016-ICV1 ✓	QC	9	1705628 ✓		
7J18016-CCV1 ✓	QC	10	1705628 ✓		
7J18016-CCB1 ✓	QC	11			
7J18016-CCV2 ✓	QC	12	1705628 ✓		
7J18016-CCB2 ✓	QC	13			
7J18016-CCV3 ✓	QC	14	1705628 ✓		
7J18016-CCB3 ✓	QC	15			
7J18016-CCV4 ✓	QC	16	1705628 ✓		
7J18016-CCB4 ✓	QC	17			
7J18016-CCV5 ✓	QC	18	1705628 ✓		
7J18016-CCB5 ✓	QC	19			
7J18016-CCV6 ✓	QC	20	1705628 ✓		
7J18016-CCB6 ✓	QC	21			
7J18016-CCV7 ✓	QC	22	1705628 ✓		
7J18016-CCB7 ✓	QC	23			
F710292-BLK1 ✓	QC	24			
F710292-BLK2 ✓	QC	25			
F710292-BLK3 ✓	QC	26			
F710292-BS1 ✓	QC	27			
F710292-BSD1 ✓	QC	28			
F710292-BS2 ✓	QC	29			
7J18016-CCV8 ✓	QC	30	1705628 ✓		
7J18016-CCB8 ✓	QC	31			
1709630-19 ✓	Hg-CVAFS-T-7030	32			
1709630-20 ✓	Hg-CVAFS-T-7030	33			
1709631-01 ✓	Hg-CVAFS-T-7030	34			
1709631-02 ✓	Hg-CVAFS-T-7030	35			

PREPARATION BENCH SHEET

F710292

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710292-BLK1	Blank	0.25	20					
F710292-BLK2	Blank	0.25	20					
F710292-BLK3	Blank	0.25	20					
F710292-BS1	LCS	0.25	20	1704421	20			
F710292-BS2	DORM4	0.127	20	1705412	127			
F710292-BSD1	LCS Dup	0.25	20	1704421	20			
F710292-DUP1	Duplicate [1709630-19]	0.265	20					
F710292-MS1	Matrix Spike [1709630-19]	0.282	20	1705554	100			
F710292-MS2	Matrix Spike [1709631-13]	0.284	20	1705554	100			
F710292-MSD1	Matrix Spike Dup [1709630-19]	0.271	20	1705554	100			
F710292-MSD2	Matrix Spike Dup [1709631-13]	0.269	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00
			1706064	70/30 Digestion Acid	09-Apr-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710292

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709630-19	ES-13_17HC001_091417_BLM_19_WB	0.282	20	-	-	-		
1709630-20	ES-13_17HC001_091417_BLM_20_WB	0.278	20	-	-	-		
1709631-01	ES-15_17HC001_091417_BLM_01_WB	0.287	20	-	-	-		
1709631-02	ES-15_17HC001_091417_BLM_02_WB	0.28	20	-	-	-		
1709631-03	ES-15_17HC001_091417_BLM_03_WB	0.294	20	-	-	-		
1709631-04	ES-15_17HC001_091417_BLM_04_WB	0.271	20	-	-	-		
1709631-06	ES-15_17HC001_091417_BLM_06_WB	0.28	20	-	-	-		
1709631-07	ES-15_17HC001_091417_BLM_07_WB	0.282	20	-	-	-		
1709631-08	ES-15_17HC001_091417_BLM_08_WB	0.284	20	-	-	-		
1709631-09	ES-15_17HC001_091417_BLM_09_WB	0.284	20	-	-	-		
1709631-09RE1	ES-15_17HC001_091417_BLM_09_WB	0.284	20	-	-	-	Added 10/18/2017 by BC	Added 10/18/2017 by BC
1709631-10	ES-15_17HC001_091417_BLM_10_WB	0.29	20	-	-	-		
1709631-11	ES-15_17HC001_091417_BLM_11_WB	0.288	20	-	-	-		
1709631-12	ES-15_17HC001_091417_BLM_12_WB	0.283	20	-	-	-		
1709631-13	ES-15_17HC001_091417_BLM_13_WB	0.286	20	-	-	-		



PREPARATION BENCH SHEET

2400-3

Px 10/17/17

F710292

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710292-BLK1	Blank	0.25	20					20x
F710292-BLK2	Blank	0.25	20					20x
F710292-BLK3	Blank	0.25	20					20x
F710292-BS1	LCS	0.25	20	1704421	20			20x
F710292-BS2	DORM4	0.127	20	1705412	127			400x
F710292-BSD1	LCS Dup	0.25	20	1704421	20			20x
F710292-DUP1	Duplicate [1709630-19]	0.265	20					100x
F710292-MS1	Matrix Spike	0.282	20	1705554	100			400x
F710292-MS2	Matrix Spike	0.284	20	1705554	100			400x
F710292-MSD1	Matrix Spike Dup	0.271	20	1705554	100			400x
F710292-MSD2	Matrix Spike Dup	0.269	20	1705554	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1706064	70/30 Digestion Acid	09-Apr-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706079	5% BrCl	14-Mar-18 00:00

20x = 2.5ml
 400x = 125ul
 100x = 500ul

1705610
 1705611
 1705961
 1703102

PREPARATION BENCH SHEET

F710292

Eurofins Frontier Global Sciences, Inc.

2600-3

Bc 10/17/17

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709630-19	ES-13_17HC001_091417_BLM_19_WB	0.282	20	-	-	-	100x -	
1709630-20	ES-13_17HC001_091417_BLM_20_WB	0.278	20	-	-	-	100x -	
1709631-01	ES-15_17HC001_091417_BLM_01_WB	0.287	20	-	-	-	100x -	
1709631-02	ES-15_17HC001_091417_BLM_02_WB	0.28	20	-	-	-	100x -	
1709631-03	ES-15_17HC001_091417_BLM_03_WB	0.294	20	-	-	-	100x -	
1709631-04	ES-15_17HC001_091417_BLM_04_WB	0.271	20	-	-	-	100x -	
1709631-06	ES-15_17HC001_091417_BLM_06_WB	0.28	20	-	-	-	100x -	
1709631-07	ES-15_17HC001_091417_BLM_07_WB	0.282	20	-	-	-	100x -	
1709631-08	ES-15_17HC001_091417_BLM_08_WB	0.284	20	-	-	-	100x -	
1709631-09	ES-15_17HC001_091417_BLM_09_WB	0.284	20	-	-	-	100x -	
1709631-10	ES-15_17HC001_091417_BLM_10_WB	0.29	20	-	-	-	100x -	
1709631-11	ES-15_17HC001_091417_BLM_11_WB	0.288	20	-	-	-	100x -	
1709631-12	ES-15_17HC001_091417_BLM_12_WB	0.283	20	-	-	-	100x -	
1709631-13	ES-15_17HC001_091417_BLM_13_WB	0.286	20	-	-	-	100x -	

Failing Data Report - 7J18016

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Beck 10/18/17
Analyst Reviewed By Date

[Signature] 10/19/17
Peer Reviewed By Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE
PEER-REVIEWED

7J18017

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *R* 10/18/17 Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18017-IBL1 ✓	QC	1			
7J18017-IBL2 ✓	QC	2			
7J18017-IBL3 ✓	QC	3			
7J18017-CAL1 ✓	QC	4	1704505	✓	
7J18017-CAL2 ✓	QC	5	1704506	✓	
7J18017-CAL3 ✓	QC	6	1704507	✓	
7J18017-CAL4 ✓	QC	7	1704508	✓	
7J18017-CAL5 ✓	QC	8	1704509	✓	
7J18017-ICV1 ✓	QC	9	1705628	✓	
F710347-BLK1 ✓	QC	10			
F710347-BLK2 ✓	QC	11			
F710347-BLK3 ✓	QC	12			
F710347-BS1 ✓	QC	13			
F710347-BSD1 ✓	QC	14			
1710398-13 ✓	Hg_FSTM_TRAP_A	15			
1710398-14 ✓	Hg_FSTM_TRAP_A	16			
1710398-15 ✓	Hg_FSTM_TRAP_A	17			
1710398-16 ✓	Hg_FSTM_TRAP_A	18			
1710398-17 ✓	Hg_FSTM_TRAP_A	19			
7J18017-CCV1 ✓	QC	20	1705628	✓	
7J18017-CCB1 ✓	QC	21			
1710398-18 ✓	Hg_FSTM_TRAP_A	22			
1710398-19 ✓	Hg_FSTM_TRAP_A	23			
1710398-20 ✓	Hg_FSTM_TRAP_A	24			
1710398-21 ✓	Hg_FSTM_TRAP_A	25			
1710398-22 ✓	Hg_FSTM_TRAP_A	26			
1710398-23 ✓	Hg_FSTM_TRAP_A	27			
1710398-24 ✓	Hg_FSTM_TRAP_A	28			
1710398-25 ✓	Hg_FSTM_TRAP_A	29			
1710398-26 ✓	Hg_FSTM_TRAP_A	30			
1710398-27 ✓	Hg_FSTM_TRAP_A	31			
7J18017-CCV2 ✓	QC	32	1705628	✓	
7J18017-CCB2 ✓	QC	33			
7J18017-CCV3 ✓	QC	34	1705628	✓	
7J18017-CCB3 ✓	QC	35			

ANALYSIS SEQUENCE

7J18017

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F710347-DUP1 ✓	QC	36			
F710347-MS1 ✓	QC	37			
F710347-MSD1 ✓	QC	38			
F710347-MS2 ✓	QC	39			
F710347-MSD2 ✓	QC	40			
7J18017-CCV4 ✓	QC	41	1705628	✓	
7J18017-CCB4 ✓	QC	42			
F710363-BLK1 ✓	QC	43			
F710363-BLK2 ✓	QC	44			
F710363-BLK3 ✓	QC	45			
F710363-BS1 ✓	QC	46			
F710363-BSD1 ✓	QC	47			
1710474-01 ✓	Hg_FSTM_TRAP_A	48			AFS - Take photos of trap if heavy particulate present and send to PM
1710474-02 ✓	Hg_FSTM_TRAP_A	49			AFS - Take photos of trap if heavy particulate present and send to PM
1710475-01 ✓	Hg_FSTM_TRAP_A	50			AFS - Take photos of trap if heavy particulate present and send to PM
1710475-02 ✓	Hg_FSTM_TRAP_A	51			AFS - Take photos of trap if heavy particulate present and send to PM
1710475-03 ✓	Hg_FSTM_TRAP_A	52			AFS - Take photos of trap if heavy particulate present and send to PM
7J18017-CCV5 ✓	QC	53	1705628	✓	
7J18017-CCB5 ✓	QC	54			
1710475-04 ✓	Hg_FSTM_TRAP_A	55			AFS - Take photos of trap if heavy particulate present and send to PM
1710476-01 ✓	Hg_FSTM_TRAP_A	56			
1710476-02 ✓	Hg_FSTM_TRAP_A	57			
1710475-03RE1 ✓	Hg_FSTM_TRAP_A	58			Added 10/18/2017 by BC
1710475-04RE1 ✓	Hg_FSTM_TRAP_A	59			Added 10/18/2017 by BC
7J18017-CCV6 ✓	QC	60	1705628	✓	
7J18017-CCB6 ✓	QC	61			
7J18017-CCV7 ✓	QC	62	1705628	✓	
7J18017-CCB7 ✓	QC	63			
F710363-DUP1 ✓	QC	64			
F710363-MS1 ✓	QC	65			
F710363-MSD1 ✓	QC	66			
7J18017-CCV8 ✓	QC	67	1705628	✓	
7J18017-CCB8 ✓	QC	68			

ANALYSIS SEQUENCE

7J18017

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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B. King 10/18/17
Samples Loaded By Date

B. King 10/18/17
Data Processed By Date

PREPARATION BENCH SHEET

F710363

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/16/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710363-BLK1	Blank	1	100					
F710363-BLK2	Blank	1	100					
F710363-BLK3	Blank	1	100					
F710363-BS1	LCS	1	100	1705554	200			
F710363-BSD1	LCS Dup	1	100	1705554	200			
F710363-DUP1	Duplicate [1710475-01] ✓	1	100					
F710363-MS1	Matrix Spike [1710475-01] ✓	0.0005	0.05	1704422 ✓	100 ✓			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.05mL ✓
F710363-MSD1	Matrix Spike Dup [1710475-01] ✓	0.0005	0.05	1704422	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.05mL ✓

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00
			1706064	70/30 Digestion Acid	09-Apr-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710363

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/16/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710474-01	EFGS09211 31/32 TRAP A 9/29/17 - 10/2/17	1	100	-	-	-	1389.405 L AFS - Take photos of trap if	
1710474-02	EFGS10148 31/32 TRAP B 9/29/17 - 10/2/17	1	100	-	-	-	1153.365 L AFS - Take photos of trap if	
1710475-01	EFGS09089 Unit 33 Trap A 9/29/17 - 10/4/17	1	100	-	-	-	2137.095 L AFS - Take photos of trap if	
1710475-02	EFGS09234 Unit 33 Trap B 9/29/17 - 10/4/17	1	100	-	-	-	2822.076 L AFS - Take photos of trap if	
1710475-03	EFGS09204 Unit 31/32 Trap A 10/2/17 - 10/5/17	1	100	-	-	-	701.589 L AFS - Take photos of trap if	
1710475-03RE1	EFGS09204 Unit 31/32 Trap A 10/2/17 - 10/5/17	1	100	-	-	-	701.589 L Added 10/18/2017 by BC	Added 10/18/2017 by BC
1710475-04	EFGS10087 Unit 31/32 Trap B 10/2/17 - 10/5/17	1	100	-	-	-	595.429 L AFS - Take photos of trap if	
1710475-04RE1	EFGS10087 Unit 31/32 Trap B 10/2/17 - 10/5/17	1	100	-	-	-	595.429 L Added 10/18/2017 by BC	Added 10/18/2017 by BC
1710476-01	EFGS08098 Trap A	1	100	-	-	-	1181.10 L	
1710476-02	EFGS08099 TrapB	1	100	-	-	-	1181.42 L	

PREPARATION BENCH SHEET

2000-3
BC 10/17/17

F710363

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/16/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710363-BLK1	Blank	1	100					100X
F710363-BLK2	Blank	1	100					100X
F710363-BLK3	Blank	1	100					100X
F710363-BS1	LCS	1	100	1705554	200			400X
F710363-BSD1	LCS Dup	1	100	1705554	200			400X
F710363-DUP1	Duplicate 1710475-01	1	100					1000X
F710363-MS1	Matrix Spike 1710475-01	1	100	1704422	100			1000X
F710363-MSD1	Matrix Spike Dup 1710475-01	1	100	1704422	100			1000X

Standard ID(s): 1705554 Description: THg 1,000ng/mL Secondary Spiking Standard Expiration: 18-Mar-18 00:00

100X = 500µL
400X = 125µL
1000X = 50µL
2500X = 20µL
5000X = 10µL

1705610
1705611
1705961
1703182

PREPARATION BENCH SHEET

2600-3
 34 10/17/17

F710363

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/16/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments	C
1710474-01	EFGS09211 31/32 TRAP A 9/29/17 - 10/2/17	1	100	-	-	-	1389.405 L AFS - Take photos of trap if 1000X	100X -	2500X -
1710474-02	EFGS10148 31/32 TRAP B 9/29/17 - 10/2/17	1	100	-	-	-	1153.365 L AFS - Take photos of trap if 1000X	100X -	2500X -
1710475-01	EFGS09089 Unit 33 Trap A 9/29/17 - 10/2/17	1	100	-	-	-	2137.095 L AFS - Take photos of trap if 1000X	100X -	2500X
1710475-02	EFGS09234 Unit 33 Trap B 9/29/17 - 10/2/17	1	100	-	-	-	2822.076 L AFS - Take photos of trap if 1000X	100X -	2500X
1710475-03	EFGS09204 Unit 31/32 Trap A 9/29/17 - 10/2/17	1	100	-	-	-	701.589 L AFS - Take photos of trap if 400X → 1000X	100X -	2500X
1710475-04	EFGS10087 Unit 31/32 Trap B 9/29/17 - 10/2/17	1	100	-	-	-	595.429 L AFS - Take photos of trap if 400X → 1000X	100X -	2500X
1710476-01	EFGS08098 Trap A	1	100	-	-	-	1181.10 L 2500X	100X -	5000X
1710476-02	EFGS08099 Trap B	1	100	-	-	-	1181.42 L 2500X	100X -	5000X

Trap Digestions

Name: DM Date: 10/16/17 Batch ID: F710363
 Work Order(s): 1710474, 1710475, 1710476 Analysis: Total Hg Other _____
 Sample Matrix: FSTM KCl PHg Plug Other _____
 Prep: 70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)
 start time: 1620, start temp (°C): 54.0 (raw) 53.7 (w/ CF)
 end time: 1830, end temp (°C): 59.0 (raw) 58.7 (w/ CF) Timer? Yes No
 5% BrCl Oxidation (EFGS-031) start time: _____ (allow samples to sit for at least 4 hr before analysis)
 Other _____

Sample ID Number	Digest vol. (mL)	
F710363-BLK1	100	
F710363-BLK2	100	Spike ID: <u>1705554</u>
F710363-BLK3	100	Spike Amount (µL): <u>200</u>
F710363-B51	100	Spike Witness: <u>10/16/17 DM</u>
F710363-B501	100	
1710474-01A	100	
1710474-01B	100	BrCl ID: <u>1706079</u>
1710474-01C	100	70/30: <u>170004</u>
1710474-02A	100	Other: <u>NA</u>
1710474-02B	100	
1710474-02C	100	Thermometer: <u>13698</u>
1710475-01A	100	Dispensers: 02K27494 <input checked="" type="checkbox"/>
1710475-01B	100	04N73497 <input type="checkbox"/>
1710475-01C	100	Other <u>15406623</u>
1710475-02A	100	
1710475-02B	100	
1710475-02C	100	Pipette ID: <u>0007852</u>
1710475-03A	100	Cal. Date: <u>10/16/17</u>
1710475-03B	100	
1710475-03C	100	Vials and Jars lot# <u>0008732</u>
1710475-04A	100	Trap Material Lot#: <u>1704096</u>
1710475-04B	100	Loader Mass Verified: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1710475-04C	100	
1710476-01A	100	
1710476-01B	100	
1710476-01C	100	Comments:
1710476-02A	100	1710475-01 Residue on trap. next. 01A
1710476-02B	100	1710475-02 Residue on trap.
1710476-02C	100	1710474-01C, 02C } Spiked
		1710475-01C, 02C } 2700ng
		03C, 04C }
		1710476-01C, 02C Spiked
		12,000
<u>10/14/17 DM</u>		

PREPARATION BENCH SHEET

F710347

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710347-BLK1	Blank	1	40					
F710347-BLK2	Blank	1	40					
F710347-BLK3	Blank	1	40					
F710347-BS1	LCS	1	40	1705554	200			
F710347-BSD1	LCS Dup	1	40	1705554	200			
F710347-DUP1	Duplicate [1710398-17] ✓	1	40					
F710347-MS1	Matrix Spike [1710398-13] ✓	0.0125	0.5	1704483	125 ✓			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL ✓
F710347-MS2	Matrix Spike [1710398-17] ✓	0.0125	0.5	1704422	25 ✓			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL ✓
F710347-MSD1	Matrix Spike Dup [1710398-13] ✓	0.0125	0.5	1704483	125 ✓			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL ✓
F710347-MSD2	Matrix Spike Dup [1710398-17] ✓	0.0125	0.5	1704422	25 ✓			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL ✓

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1704483	THg 1ng/mL Calibration Standard	24-Oct-17 00:00	1705610	THg Washstation (0.5% BrCl)	
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00
			1706064	70/30 Digestion Acid	09-Apr-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710347

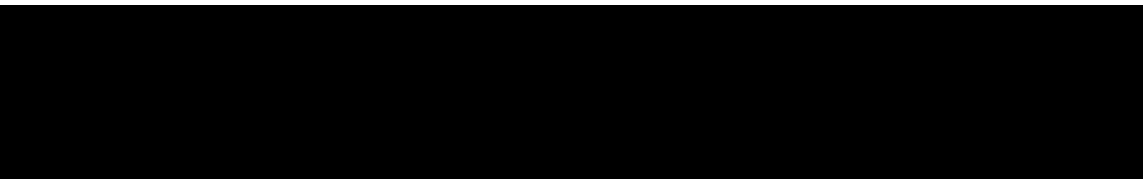
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710398-13	HGS1718-6-14	1	40	-	-	-	No volume listed	
1710398-14	HGS1718-6-15	1	40	-	-	-	No volume listed	
1710398-15	HGS1718-6-16	1	40	-	-	-	No volume listed	
1710398-16	HGS1718-6-17	1	40	-	-	-	No volume listed	
1710398-17	HGS1718-6-18	1	40	-	-	-	No volume listed	
1710398-18	HGS1718-7-1	1	40	-	-	-	No volume listed	
1710398-19	HGS1718-7-2	1	40	-	-	-	No volume listed	
1710398-20	HGS1718-7-3	1	40	-	-	-	No volume listed	
1710398-21	HGS1718-7-4	1	40	-	-	-	No volume listed	
1710398-22	HGS1718-7-5	1	40	-	-	-	No volume listed	
1710398-23	HGS1718-7-6	1	40	-	-	-	No volume listed	
1710398-24	HGS1718-7-7	1	40	-	-	-	No volume listed	
1710398-25	HGS1718-7-8	1	40	-	-	-	No volume listed	
1710398-26	HGS1718-7-9	1	40	-	-	-	No volume listed	
1710398-27	HGS1718-7-10	1	40	-	-	-	No volume listed	



PREPARATION BENCH SHEET

2600-3

10/18/17 10/17/17 BC

F710347

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710347-BLK1	Blank	1	40					100X -
F710347-BLK2	Blank	1	40					100X -
F710347-BLK3	Blank	1	40					100X -
F710347-BS1	LCS	1	40	1705554	200			400X -
F710347-BSD1	LCS Dup	1	40	1705554	200			400X -
F710347-DUP1	Duplicate 1710398-17	1	40					100X -
F710347-MS1	Matrix Spike 1710398-13	1	40	1704483	125			100X -
F710347-MS2	Matrix Spike 1710398-17	1	40	1704422	25			100X -
F710347-MSD1	Matrix Spike Dup 1710398-13	1	40	1704483	125			100X -
F710347-MSD2	Matrix Spike Dup 1710398-17	1	40	1704422	25			100X -

Standard ID(s):

Description:

Expiration:

1705554

THg 1,000ng/mL Secondary Spiking Standard

18-Mar-18 00:00

100X = 500µL
400X = 125µL

1705410

1705611

1703182

1705961

PREPARATION BENCH SHEET

2600-3
10/17/17 BCL

F710347

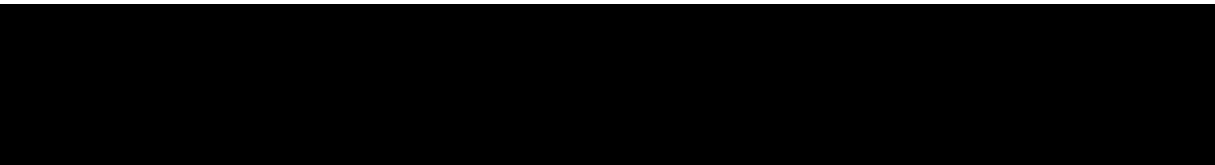
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments A	Analysis Comments B
1710398-13	HGS1718-6-14	1	40	-	-	-	No volume listed 100X -	100X -
1710398-14	HGS1718-6-15	1	40	-	-	-	No volume listed 100X -	100X -
1710398-15	HGS1718-6-16	1	40	-	-	-	No volume listed 100X -	100X -
1710398-16	HGS1718-6-17	1	40	-	-	-	No volume listed 100X -	100X -
1710398-17	HGS1718-6-18	1	40	-	-	-	No volume listed 100X -	100X -
1710398-18	HGS1718-7-1	1	40	-	-	-	No volume listed 100X -	100X -
1710398-19	HGS1718-7-2	1	40	-	-	-	No volume listed 100X -	100X -
1710398-20	HGS1718-7-3	1	40	-	-	-	No volume listed 100X -	100X -
1710398-21	HGS1718-7-4	1	40	-	-	-	No volume listed 100X -	100X -
1710398-22	HGS1718-7-5	1	40	-	-	-	No volume listed 100X -	100X -
1710398-23	HGS1718-7-6	1	40	-	-	-	No volume listed 100X -	100X -
1710398-24	HGS1718-7-7	1	40	-	-	-	No volume listed 100X -	100X -
1710398-25	HGS1718-7-8	1	40	-	-	-	No volume listed 100X -	100X -
1710398-26	HGS1718-7-9	1	40	-	-	-	No volume listed 100X -	100X -
1710398-27	HGS1718-7-10	1	40	-	-	-	No volume listed 100X -	100X -



Trap Digestions

Name: DM Date: 10/13/17 Batch ID: F710347
 Work Order(s): 1710398 Analysis: Total Hg Other _____
 Sample Matrix: FSTM KCl PHg Plug Other _____
 Prep: 70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)
 start time: 15:35, start temp (°C): 55.6 (raw) 55.1 (w/ CF)
 end time: 17:35, end temp (°C): 59.8 (raw) 59.3 (w/ CF) Timer? Yes No
 5% BrCl Oxidation (EFGS-031) start time: _____ (allow samples to sit for at least 4 hr before analysis)
 Other _____

Sample ID Number	Digest vol. (mL)	
F710347- BLK1	40	Spike ID: <u>170554</u> Spike Amount (µL): <u>200</u> Spike Witness: <u>BC 10/13/17</u> BrCl ID: <u>1706079</u> 70/30: <u>1706064</u> Other: <u>N/A</u> Thermometer: <u>140418012</u> Dispensers: 02K27494 <input checked="" type="checkbox"/> 04N73497 <input type="checkbox"/> Other <u>15406623</u> Pipette ID: <u>0207852</u> Cal. Date: <u>10/9/17</u> Vials and Jars lot# <u>00028912 / 00020202</u> Trap Material Lot#: <u>1704097</u> Loader Mass Verified: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Comments: TRAPS unspiked Acid added 10/13/17 awf
F710347- BLK2	40	
F710347- BLK3	40	
F710347- B51	40	
F710347- B5D1	40	
1710398- 13A	40	
1710398- 13B	40	
1710398- 14A	40	
1710398- 14B	40	
1710398- 15A	40	
1710398- 15B	40	
1710398- 16A	40	
1710398- 16B	40	
1710398- 17A	40	
1710398- 17B	40	
1710398- 18A	40	
1710398- 18B	40	
1710398- 19A	40	
1710398- 19B	40	
1710398- 20A	40	
1710398- 20B	40	
1710398- 21A	40	
1710398- 21B	40	
1710398- 22A	40	
1710398- 22B	40	
1710398- 23A	40	
1710398- 23B	40	
1710398- 24A	40	
1710398- 24B	40	
1710398- 25A	40	
1710398- 25B	40	
1710398- 26A	40	
1710398- 26B	40	
1710398- 27A	40	
1710398- 27B	40	

Failing Data Report - 7J18017

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1710475-04	Hg_FSTM_TRAP_A	2078.0	20.00				ng/Trap						FAIL-OVER	PASS	E ✓

Beck 10/18/17
 Analyst Reviewed By Date

[Signature] 10/18/17
 Peer Reviewed By Date

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: <u>BC</u>	Sequence(s) #: <u>7J18016, 7J18017</u>
Reviewer: <u>R 10/18/17</u>	Dataset ID(s): <u>THg26003-171017-1</u>
Date: <u>10/18/2017</u>	WO (s) #: <u>Various</u>
Batch #(s): <u>F710347, F710363, F710292</u>	

• Select the correct preparation method.

Analyte	Prep Method	Matrix	
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg0	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: BC **Reviewer Initials:** R 10/18/17

- | | | | |
|---|---|--|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | | | |
| (b) Check 5% of transcription from Instrument print-out and Excel file | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | | | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 50 ml / aliquot = Excel dilution value | | | |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7J18016, 7J18017
Reviewer:	0 <i>R 10/18/17</i>	Dataset ID(s):	THg26003-171017-1
Date:	10/18/2017	WO (s) #:	Various
Batch #(s):	F710347, F710363, F710292		0

Analyst Initials BC Reviewer Initials R 10/18/17

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: off curve
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
 (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
 (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J18016, 7J18017
Reviewer: 0 <i>R 10/18/17</i>	Dataset ID(s): THg26003-171017-1
Date: 10/18/2017	WO (s) #: Various
Batch #(s): F710347, F710363, F710292	0

Analyst Initials BC **Reviewer Initials** R 10/18/17

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/11/17, 1/27/17 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 7/28/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 7/28/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

Reviewed 11/02/2017
Elizabeth Penta
Wood. PLC

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709631

PO#

C012505850

October 21, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709631

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October 21, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-15_17HC001_091417_BLM_01_WB	1709631-01	Tissue	14-Sep-17 11:45	22-Sep-17 10:25
ES-15_17HC001_091417_BLM_02_WB	1709631-02	Tissue	14-Sep-17 11:45	22-Sep-17 10:25
ES-15_17HC001_091417_BLM_03_WB	1709631-03	Tissue	14-Sep-17 11:45	22-Sep-17 10:25
ES-15_17HC001_091417_BLM_04_WB	1709631-04	Tissue	14-Sep-17 11:45	22-Sep-17 10:25
ES-15_17HC001_091417_BLM_06_WB	1709631-06	Tissue	14-Sep-17 11:45	22-Sep-17 10:25
ES-15_17HC001_091417_BLM_07_WB	1709631-07	Tissue	14-Sep-17 11:45	22-Sep-17 10:25
ES-15_17HC001_091417_BLM_08_WB	1709631-08	Tissue	14-Sep-17 11:45	22-Sep-17 10:25
ES-15_17HC001_091417_BLM_09_WB	1709631-09	Tissue	14-Sep-17 11:45	22-Sep-17 10:25
ES-15_17HC001_091417_BLM_10_WB	1709631-10	Tissue	14-Sep-17 11:45	22-Sep-17 10:25
ES-15_17HC001_091417_BLM_11_WB	1709631-11	Tissue	14-Sep-17 11:45	22-Sep-17 10:25
ES-15_17HC001_091417_BLM_12_WB	1709631-12	Tissue	14-Sep-17 11:45	22-Sep-17 10:25
ES-15_17HC001_091417_BLM_13_WB	1709631-13	Tissue	14-Sep-17 11:45	22-Sep-17 10:25

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Amy Goodall, Project Manager



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SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM . The samples were received intact, on-ice within two sealed coolers at -27.1 and -21.6 degrees Celsius.

Client requested Lipids Analysis by NOAA1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

During the homogenization, the lab saw that there was no meat inside of sample 1709631-05, only dirt and sand. The analysis request was cancelled and the client was notified.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped batch F710292 and analyzed in sequence 7J18016. Client requested sample 1709631-05 to be used as the source sample for batch QC, but due to no volume this was not possible. Sample 1709631-13 was used as the QC source in batch F710292.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the

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exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

Client: AMSC Foster Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/23/17 Labeled By: CSB

Project: _____

Received By: LM Label Verified By: BOG

of Coolers Received: 2 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>1704486</u>	CF: <u>10.1</u> °C	Date/time: <u>9/22/17 10:25</u>	By: <u>LM</u>
Cooler 1: <u>27.2</u> °C	w/ CF: <u>27.12</u> °C	Cooler 4: _____ °C	w/ CF: _____ °C
Cooler 2: <u>21.73</u> °C	w/ CF: <u>21.63</u> °C	Cooler 5: _____ °C	w/ CF: _____ °C
Cooler 3: _____ °C	w/ CF: _____ °C	Cooler 6: _____ °C	w/ CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	Y	
Preservation type:	Y	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4846 Cooler 2: 7878 1037 1884

1709631



1709631

Environmental Analysis Request/Chain of Custody

Client: Amed Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101		Matrix		Analyses Requested				For Lab Use Only										
Project Name/# USDC Penobscot		PN # 3318168052.04A.055		Preservation Codes				SF #:										
Project Manager: Rob Pendleton		P.O. # C012505550						SCR #:										
Sample: JB		PWSID #:						Preservation Codes										
Phone #:		Quote #:						H = HCl T = Thiocyanate S = HNO ₃ B = BACD G = H ₂ SO ₄ F = H ₂ PO ₄ O = Other										
State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>						Remarks										
Sample Identification		Collection		Soil <input type="checkbox"/>	Sediment <input type="checkbox"/>	Water <input type="checkbox"/>	Other: <input type="checkbox"/>	Tissue <input type="checkbox"/>	Total # of Containers	Hg (63) or Lead (50) or Arsenic (50) or PCBs (50)								
Date	Time	Grab	Composite															
1	ES-15_17HC001_091417_BLM_01_WB	091417	11:45	X				X	1	X								
2	ES-15_17HC001_091417_BLM_02_WB	091417	11:45	X				X	1	X								
3	ES-15_17HC001_091417_BLM_03_WB	091417	11:45	X				X	1	X								
4	ES-15_17HC001_091417_BLM_04_WB	091417	11:45	X				X	1	X								
5	ES-15_17HC001_091417_BLM_05_WB	091417	11:45	X				X	1	X								
6	ES-15_17HC001_091417_BLM_06_WB	091417	11:45	X				X	1	X								
7	ES-15_17HC001_091417_BLM_07_WB	091417	11:45	X				X	1	X								
8	ES-15_17HC001_091417_BLM_08_WB	091417	11:45	X				X	1	X								
9	ES-15_17HC001_091417_BLM_09_WB	091417	11:45	X				X	1	X								
10	ES-15_17HC001_091417_BLM_10_WB	091417	11:45	X				X	1	X								
11	ES-15_17HC001_091417_BLM_11_WB	091417	11:45	X				X	1	X								
12	ES-15_17HC001_091417_BLM_12_WB	091417	11:45	X				X	1	X								
13	ES-15_17HC001_091417_BLM_13_WB	091417	11:45	X				X	1	X								
14																		
Turnaround Time Requested (TAT) (please check):		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Relinquished by: ZCB		Date: 9/29/2017		Time: 1630		Received by:		Date:		Time:				
Notes:		(Rush TAT is subject to laboratory approval and surcharges.)		Relinquished by:		Date:		Time:		Received by:		Date:		Time:				
FedEx # 81034444846		# of Coolers 2		Relinquished by:		Date:		Time:		Received by:		Date:		Time:				
Sample disposal - Hold Equipment Blanks 14 until 30 days after delivery of report		Report and EDD to: diane.king@amctw.com / 978-692-8633		Relinquished by:		Date:		Time:		Received by:		Date:		Time:				
Data Package Options (please check if required):		High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		Relinquished by Commercial Carrier:		Date:		Time:		Received by:		Date:		Time:				
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		If yes, format: _____		UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other: _____		Temperature upon receipt: _____ °C												



AMEC Foster Wheeler
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:48

ES-15_17HC001_091417_BLM_01_WB
1709631-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	77.1	0.390	3.48	ng/g	100	F710292	10-Oct-17	7J18016	17-Oct-17	EPA 1631B	
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Reported:
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ES-15_17HC001_091417_BLM_02_WB
1709631-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	71.6	0.400	3.57	ng/g	100	F710292	10-Oct-17	7J18016	17-Oct-17	EPA 1631B	

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Project Manager: Denise King

Reported:
21-Oct-17 16:48

ES-15_17HC001_091417_BLM_03_WB
1709631-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	66.5	0.381	3.40	ng/g	100	F710292	10-Oct-17	7J18016	17-Oct-17	EPA 1631B	

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Reported:
21-Oct-17 16:48

ES-15_17HC001_091417_BLM_04_WB
1709631-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	71.2	0.413	3.69	ng/g	100	F710292	10-Oct-17	7J18016	17-Oct-17	EPA 1631B	

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Reported:
21-Oct-17 16:48

ES-15_17HC001_091417_BLM_06_WB
1709631-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	78.4	0.400	3.57	ng/g	100	F710292	10-Oct-17	7J18016	17-Oct-17	EPA 1631B	

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Reported:
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ES-15_17HC001_091417_BLM_07_WB
1709631-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	60.6	0.397	3.55	ng/g	100	F710292	10-Oct-17	7J18016	17-Oct-17	EPA 1631B	

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Reported:
21-Oct-17 16:48

ES-15_17HC001_091417_BLM_08_WB
1709631-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	65.9	0.394	3.52	ng/g	100	F710292	10-Oct-17	7J18016	17-Oct-17	EPA 1631B	

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Reported:
21-Oct-17 16:48

ES-15_17HC001_091417_BLM_09_WB
1709631-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	97.6	0.394	3.52	ng/g	100	F710292	10-Oct-17	7J18016	17-Oct-17	EPA 1631B	

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ES-15_17HC001_091417_BLM_10_WB
1709631-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	66.1	0.386	3.45	ng/g	100	F710292	10-Oct-17	7J18016	17-Oct-17	EPA 1631B	

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Reported:
21-Oct-17 16:48

ES-15_17HC001_091417_BLM_11_WB
1709631-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	64.5	0.389	3.47	ng/g	100	F710292	10-Oct-17	7J18016	17-Oct-17	EPA 1631B	

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ES-15_17HC001_091417_BLM_12_WB
1709631-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	78.9	0.396	3.53	ng/g	100	F710292	10-Oct-17	7J18016	17-Oct-17	EPA 1631B	

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ES-15_17HC001_091417_BLM_13_WB
1709631-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	85.9	0.392	3.50	ng/g	100	F710292	10-Oct-17	7J18016	17-Oct-17	EPA 1631B	

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J18016 - F710292											
Cal Standard (7J18016-CAL1)					Prepared & Analyzed: 17-Oct-17						
Mercury	0.531	-		ng/L	0.50100		106				
Cal Standard (7J18016-CAL2)					Prepared & Analyzed: 17-Oct-17						
Mercury	1.016	-		ng/L	1.0020		101				
Cal Standard (7J18016-CAL3)					Prepared & Analyzed: 17-Oct-17						
Mercury	5.014	-		ng/L	5.0100		100				
Cal Standard (7J18016-CAL4)					Prepared & Analyzed: 17-Oct-17						
Mercury	19.24	-		ng/L	20.040		96.0				
Cal Standard (7J18016-CAL5)					Prepared & Analyzed: 17-Oct-17						
Mercury	38.34	-		ng/L	40.080		95.7				
Calibration Blank (7J18016-CCB1)					Prepared & Analyzed: 17-Oct-17						
Mercury	0.031	-		ng/L							
Calibration Blank (7J18016-CCB2)					Prepared & Analyzed: 17-Oct-17						
Mercury	0.017	-		ng/L							
Calibration Blank (7J18016-CCB3)					Prepared & Analyzed: 17-Oct-17						
Mercury	0.017	-		ng/L							
Calibration Blank (7J18016-CCB4)					Prepared & Analyzed: 17-Oct-17						
Mercury	0.078	-		ng/L							
Calibration Blank (7J18016-CCB5)					Prepared & Analyzed: 17-Oct-17						
Mercury	0.135	-		ng/L							

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J18016 - F710292

Calibration Blank (7J18016-CCB6)											
Prepared & Analyzed: 17-Oct-17											
Mercury	0.088	-		ng/L							
Calibration Blank (7J18016-CCB7)											
Prepared & Analyzed: 17-Oct-17											
Mercury	0.124	-		ng/L							
Calibration Blank (7J18016-CCB8)											
Prepared & Analyzed: 17-Oct-17											
Mercury	0.095	-		ng/L							
Calibration Blank (7J18016-CCB9)											
Prepared & Analyzed: 17-Oct-17											
Mercury	0.132	-		ng/L							
Calibration Blank (7J18016-CCBA)											
Prepared & Analyzed: 17-Oct-17											
Mercury	0.158	-		ng/L							
Calibration Check (7J18016-CCV1)											
Prepared & Analyzed: 17-Oct-17											
Mercury	4.973	-		ng/L	5.0000		99.5	77-123			
Calibration Check (7J18016-CCV2)											
Prepared & Analyzed: 17-Oct-17											
Mercury	5.000	-		ng/L	5.0000		100	77-123			
Calibration Check (7J18016-CCV3)											
Prepared & Analyzed: 17-Oct-17											
Mercury	4.884	-		ng/L	5.0000		97.7	77-123			
Calibration Check (7J18016-CCV4)											
Prepared & Analyzed: 17-Oct-17											
Mercury	5.120	-		ng/L	5.0000		102	77-123			
Calibration Check (7J18016-CCV5)											
Prepared & Analyzed: 17-Oct-17											
Mercury	5.144	-		ng/L	5.0000		103	77-123			

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Reported:
21-Oct-17 16:48

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 7J18016 - F710292

Calibration Check (7J18016-CCV6) Prepared & Analyzed: 17-Oct-17

Mercury	4.966	-		ng/L	5.0000		99.3	77-123			
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Calibration Check (7J18016-CCV7) Prepared & Analyzed: 17-Oct-17

Mercury	5.317	-		ng/L	5.0000		106	77-123			
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Calibration Check (7J18016-CCV8) Prepared & Analyzed: 17-Oct-17

Mercury	5.088	-		ng/L	5.0000		102	77-123			
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Calibration Check (7J18016-CCV9) Prepared & Analyzed: 17-Oct-17

Mercury	5.134	-		ng/L	5.0000		103	77-123			
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Calibration Check (7J18016-CCVA) Prepared & Analyzed: 17-Oct-17

Mercury	5.234	-		ng/L	5.0000		105	77-123			
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Instrument Blank (7J18016-IBL1) Prepared & Analyzed: 17-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J18016-IBL2) Prepared & Analyzed: 17-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J18016-IBL3) Prepared & Analyzed: 17-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7J18016-ICV1) Prepared & Analyzed: 17-Oct-17

Mercury	4.992	-		ng/L	5.0000		99.8	79-121			
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Batch F710292 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710292-BLK1) Prepared: 10-Oct-17 Analyzed: 17-Oct-17

Mercury	0.379	0.090	0.800	ng/g							J
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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:48

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710292 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710292-BLK2)					Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	0.256	0.090	0.800	ng/g							J
Blank (F710292-BLK3)					Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	0.187	0.090	0.800	ng/g							J
LCS (F710292-BS1)					Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	8.662	0.090	0.800	ng/g	8.0160		108	75-125			
LCS (F710292-BS2)					Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	365.0	3.53	31.5	ng/g	373.70		97.7	75-125			
LCS Dup (F710292-BSD1)					Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	8.074	0.090	0.800	ng/g	8.0160		101	75-125	7.02	24	
Duplicate (F710292-DUP1)					Source: 1709630-19 Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	66.80	0.423	3.77	ng/g		76.20			13.1	24	
Matrix Spike (F710292-MS1)					Source: 1709630-19 Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	413.2	1.59	14.2	ng/g	354.61	76.20	95.0	71-125			
Matrix Spike (F710292-MS2)					Source: 1709631-13 Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	419.0	1.58	14.1	ng/g	352.11	85.88	94.6	71-125			
Matrix Spike Dup (F710292-MSD1)					Source: 1709630-19 Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	430.8	1.65	14.8	ng/g	369.00	76.20	96.1	71-125	1.11	24	
Matrix Spike Dup (F710292-MSD2)					Source: 1709631-13 Prepared: 10-Oct-17 Analyzed: 17-Oct-17						
Mercury	432.4	1.67	14.9	ng/g	371.75	85.88	93.2	71-125	1.50	24	

Eurofins Frontier Global Sciences, Inc.



The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 16:48

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26003-171017-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 17, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7J18016, 7J18017

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	91.84 units	183.68	85.83 units	171.66	106.1 %Rec
SEQ-CAL2	1	1.00 ng/L	170.29 units	170.29	164.28 units	164.28	101.6 %Rec
SEQ-CAL3	1	5.00 ng/L	817.04 units	163.41	811.03 units	162.21	100.3 %Rec
SEQ-CAL4	1	20.00 ng/L	3117.67 units	155.88	3111.66 units	155.58	96.2 %Rec
SEQ-CAL5	1	40.00 ng/L	6208.21 units	155.21	6202.20 units	155.06	95.9 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 161.76 +/- 6.85 4.2% RSD 165.69

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.01 units	±1.62	0.04 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	4.319 ng/L	±1.054
BLK	2	3	7.507 ng/L	±1.674
BLK	3	3	3.424 ng/L	±1.215
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: PL 10/18/18

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	CAL	SEQ-IBL1	1	10/17/2017 8:47:42	77842-1.RAW	8:47:42 AM	4.52			-1.5	-0.009	-0.009	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	10/17/2017 8:51:50	77843-1.RAW	8:51:50 AM	5.77			-0.2	-0.001	-0.001	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	10/17/2017 8:55:59	77844-1.RAW	8:55:59 AM	7.74			1.7	0.011	0.011	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	10/17/2017 9:00:07	77845-1.RAW	9:00:07 AM	91.84			85.8	0.531	0.531	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	10/17/2017 9:04:16	77846-1.RAW	9:04:16 AM	170.29			164.3	1.016	1.016	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	10/17/2017 9:08:24	77847-1.RAW	9:08:24 AM	817.04			811.0	5.014	5.014	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	10/17/2017 9:12:33	77848-1.RAW	9:12:33 AM	3117.67			3111.7	19.237	19.237	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	10/17/2017 9:16:41	77849-1.RAW	9:16:41 AM	6208.21			6202.2	38.343	38.343	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	10/17/2017 9:20:49	77850-1.RAW	9:20:49 AM	813.45			807.4	4.992	4.992	ng/L	
Hg2600-3	BC	SAM	ws		10/17/2017 9:45:14	77851-1.RAW	9:45:14 AM	75.68		X	69.7	0.431	0.000	ng/L	
Hg2600-3	BC	BLK	F710347-BLK1	100	10/17/2017 9:49:22	77852-1.RAW	9:49:22 AM	14.53	1		8.5	0.053	5.267	ng/L	
Hg2600-3	BC	BLK	F710347-BLK2	100	10/17/2017 9:53:30	77853-1.RAW	9:53:30 AM	11.16	1		5.2	0.032	3.184	ng/L	
Hg2600-3	BC	BLK	F710347-BLK3	100	10/17/2017 9:57:39	77854-1.RAW	9:57:39 AM	13.30	1		7.3	0.045	4.507	ng/L	
Hg2600-3	BC	SAM	F710347-BS1	400	10/17/2017 10:01:47	77855-1.RAW	10:01:47 AM	1953.32	1		1947.3	12.028	4811.083	ng/L	
Hg2600-3	BC	SAM	F710347-BSD1	400	10/17/2017 10:05:56	77856-1.RAW	10:05:56 AM	2058.41	1		2052.4	12.677	5070.954	ng/L	
Hg2600-3	BC	SAM	1710398-13	100	10/17/2017 10:10:04	77857-1.RAW	10:10:04 AM	151.96	1		146.0	0.859	85.909	ng/L	
Hg2600-3	BC	SAM	1710398-14	100	10/17/2017 10:14:12	77858-1.RAW	10:14:12 AM	148.92	1		142.9	0.840	84.029	ng/L	
Hg2600-3	BC	SAM	1710398-15	100	10/17/2017 10:18:21	77859-1.RAW	10:18:21 AM	141.30	1		135.3	0.793	79.319	ng/L	
Hg2600-3	BC	SAM	1710398-16	100	10/17/2017 10:22:29	77860-1.RAW	10:22:29 AM	134.96	1		129.0	0.754	75.399	ng/L	
Hg2600-3	BC	SAM	1710398-17	100	10/17/2017 10:26:38	77861-1.RAW	10:26:38 AM	177.41	1		171.4	1.016	101.642	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	10/17/2017 10:30:46	77862-1.RAW	10:30:46 AM	810.49			804.5	4.973	4.973	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	10/17/2017 10:34:55	77863-1.RAW	10:34:55 AM	10.96			5.0	0.031	0.031	ng/L	
Hg2600-3	BC	SAM	1710398-18	100	10/17/2017 10:39:03	77864-1.RAW	10:39:03 AM	26.85	1		20.8	0.086	8.564	ng/L	
Hg2600-3	BC	SAM	1710398-19	100	10/17/2017 10:43:11	77865-1.RAW	10:43:11 AM	20.83	1		14.8	0.048	4.843	ng/L	
Hg2600-3	BC	SAM	1710398-20	100	10/17/2017 10:47:20	77866-1.RAW	10:47:20 AM	20.15	1		14.1	0.044	4.422	ng/L	
Hg2600-3	BC	SAM	1710398-21	100	10/17/2017 10:51:28	77867-1.RAW	10:51:28 AM	25.11	1		19.1	0.075	7.489	ng/L	
Hg2600-3	BC	SAM	1710398-22	100	10/17/2017 10:55:37	77868-1.RAW	10:55:37 AM	22.33	1		16.3	0.058	5.770	ng/L	
Hg2600-3	BC	SAM	1710398-23	100	10/17/2017 10:59:45	77869-1.RAW	10:59:45 AM	24.16	1		18.2	0.069	6.901	ng/L	
Hg2600-3	BC	SAM	1710398-24	100	10/17/2017 11:03:54	77870-1.RAW	11:03:54 AM	22.43	1		16.4	0.058	5.832	ng/L	
Hg2600-3	BC	SAM	1710398-25	100	10/17/2017 11:08:02	77871-1.RAW	11:08:02 AM	24.29	1		18.3	0.070	6.982	ng/L	
Hg2600-3	BC	SAM	1710398-26	100	10/17/2017 11:12:10	77872-1.RAW	11:12:10 AM	27.25	1		21.2	0.088	8.812	ng/L	
Hg2600-3	BC	SAM	1710398-27	100	10/17/2017 11:16:19	77873-1.RAW	11:16:19 AM	27.27	1		21.3	0.088	8.824	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	10/17/2017 11:20:27	77874-1.RAW	11:20:27 AM	814.78			808.8	5.000	5.000	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	10/17/2017 11:24:36	77875-1.RAW	11:24:36 AM	8.78			2.8	0.017	0.017	ng/L	
Hg2600-3	BC	SAM	1710398-13B	100	10/17/2017 11:28:44	77876-1.RAW	11:28:44 AM	13.43	1		7.4	0.003	0.268	ng/L	
Hg2600-3	BC	SAM	1710398-14B	100	10/17/2017 11:32:52	77877-1.RAW	11:32:52 AM	11.04	1		5.0	-0.012	-1.210	ng/L	
Hg2600-3	BC	SAM	1710398-15B	100	10/17/2017 11:37:01	77878-1.RAW	11:37:01 AM	15.10	1		9.1	0.013	1.300	ng/L	
Hg2600-3	BC	SAM	1710398-16B	100	10/17/2017 11:41:09	77879-1.RAW	11:41:09 AM	16.87	1		10.9	0.024	2.395	ng/L	
Hg2600-3	BC	SAM	1710398-17B	100	10/17/2017 11:45:18	77880-1.RAW	11:45:18 AM	16.77	1		10.8	0.023	2.333	ng/L	
Hg2600-3	BC	SAM	1710398-18B	100	10/17/2017 11:49:26	77881-1.RAW	11:49:26 AM	14.20	1		8.2	0.007	0.744	ng/L	
Hg2600-3	BC	SAM	1710398-19B	100	10/17/2017 11:53:35	77882-1.RAW	11:53:35 AM	16.66	1		10.7	0.023	2.265	ng/L	
Hg2600-3	BC	SAM	1710398-20B	100	10/17/2017 11:57:43	77883-1.RAW	11:57:43 AM	16.66	1		10.7	0.023	2.265	ng/L	
Hg2600-3	BC	SAM	1710398-21B	100	10/17/2017 12:01:51	77884-1.RAW	12:01:51 PM	18.74	1		12.7	0.036	3.551	ng/L	
Hg2600-3	BC	SAM	1710398-22B	100	10/17/2017 12:06:00	77885-1.RAW	12:06:00 PM	21.93	1		15.9	0.055	5.523	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	10/17/2017 12:10:08	77886-1.RAW	12:10:08 PM	795.95			789.9	4.884	4.884	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	10/17/2017 12:14:17	77887-1.RAW	12:14:17 PM	8.83			2.8	0.017	0.017	ng/L	
Hg2600-3	BC	SAM	1710398-23B	100	10/17/2017 12:18:25	77888-1.RAW	12:18:25 PM	16.16	1		10.2	0.020	1.956	ng/L	
Hg2600-3	BC	SAM	1710398-24B	100	10/17/2017 12:22:33	77889-1.RAW	12:22:33 PM	12.59	1		6.6	-0.003	-0.251	ng/L	
Hg2600-3	BC	SAM	1710398-25B	100	10/17/2017 12:26:42	77890-1.RAW	12:26:42 PM	18.13	1		12.1	0.032	3.173	ng/L	
Hg2600-3	BC	SAM	1710398-26B	100	10/17/2017 12:30:50	77891-1.RAW	12:30:50 PM	14.02	1		8.0	0.006	0.633	ng/L	
Hg2600-3	BC	SAM	1710398-27B	100	10/17/2017 12:34:59	77892-1.RAW	12:34:59 PM	16.44	1		10.4	0.021	2.129	ng/L	
Hg2600-3	BC	SAM	F710347-DUP1	100	10/17/2017 12:39:07	77893-1.RAW	12:39:07 PM	175.71	1		169.7	1.006	100.591	ng/L	
Hg2600-3	BC	SAM	F710347-MS1	100	10/17/2017 12:43:16	77894-1.RAW	12:43:16 PM	571.80	1		565.8	3.455	345.459	ng/L	
Hg2600-3	BC	SAM	F710347-MSD1	100	10/17/2017 12:47:24	77895-1.RAW	12:47:24 PM	580.46	1		574.5	3.508	350.813	ng/L	
Hg2600-3	BC	SAM	F710347-MS2	100	10/17/2017 12:51:32	77896-1.RAW	12:51:32 PM	995.64	1		989.6	6.075	607.482	ng/L	
Hg2600-3	BC	SAM	F710347-MSD2	100	10/17/2017 12:55:41	77897-1.RAW	12:55:41 PM	1006.15	1		1000.1	6.140	613.979	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	10/17/2017 12:59:49	77898-1.RAW	12:59:49 PM	834.23			828.2	5.120	5.120	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	CAL	SEQ-CCB4	1	10/17/2017 13:03:58	77899-1.RAW	1:03:58 PM	18.66			12.7	0.078	0.078	ng/L	
Hg2600-3	BC	BLK	F710363-BLK1	100	10/17/2017 13:08:06	77900-1.RAW	1:08:06 PM	16.38	2		10.4	0.064	6.411	ng/L	
Hg2600-3	BC	BLK	F710363-BLK2	100	10/17/2017 13:12:15	77901-1.RAW	1:12:15 PM	21.27	2		15.3	0.094	9.434	ng/L	
Hg2600-3	BC	BLK	F710363-BLK3	100	10/17/2017 13:16:23	77902-1.RAW	1:16:23 PM	16.81	2		10.8	0.067	6.677	ng/L	
Hg2600-3	BC	SAM	F710363-BS1	400	10/17/2017 13:20:31	77903-1.RAW	1:20:31 PM	743.87	2		737.9	4.543	1817.109	ng/L	
Hg2600-3	BC	SAM	F710363-BSD1	400	10/17/2017 13:24:40	77904-1.RAW	1:24:40 PM	737.61	2		731.6	4.504	1801.629	ng/L	
Hg2600-3	BC	SAM	1710474-01	1000	10/17/2017 13:28:48	77905-1.RAW	1:28:48 PM	2775.96	2		2770.0	17.117	17116.657	ng/L	
Hg2600-3	BC	SAM	1710474-02	1000	10/17/2017 13:32:57	77906-1.RAW	1:32:57 PM	2313.89	2		2307.9	14.260	14260.085	ng/L	
Hg2600-3	BC	SAM	1710475-01	1000	10/17/2017 13:37:05	77907-1.RAW	1:37:05 PM	1417.31	2		1411.3	8.717	8717.319	ng/L	
Hg2600-3	BC	SAM	1710475-02	1000	10/17/2017 13:41:13	77908-1.RAW	1:41:13 PM	1535.77	2		1529.8	9.450	9449.653	ng/L	
Hg2600-3	BC	SAM	1710475-03	400	10/17/2017 13:45:22	77909-1.RAW	1:45:22 PM	5269.62	2		5263.6	32.522	13008.601	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	10/17/2017 13:49:30	77910-1.RAW	1:49:30 PM	838.06			832.1	5.144	5.144	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	10/17/2017 13:53:39	77911-1.RAW	1:53:39 PM	27.90			21.9	0.135	0.135	ng/L	
Hg2600-3	BC	SAM	1710475-04	400	10/17/2017 13:57:47	77912-1.RAW	1:57:47 PM	8412.11	2		8406.1	51.949	20779.501	ng/L	
Hg2600-3	BC	SAM	ws		10/17/2017 14:03:08	77914-1.RAW	2:03:08 PM	118.98		X	113.0	0.698	0.000	ng/L	
Hg2600-3	BC	SAM	1710476-01	2500	10/17/2017 14:07:16	77913-2.RAW	2:07:16 PM	3513.96	2		3508.0	21.684	54208.915	ng/L	
Hg2600-3	BC	SAM	1710476-02	2500	10/17/2017 14:11:24	77915-1.RAW	2:11:24 PM	3323.30	2		3317.3	20.505	51262.208	ng/L	
Hg2600-3	BC	SAM	1710475-03RE1	1000	10/17/2017 14:15:33	77916-1.RAW	2:15:33 PM	2207.05	2		2201.0	13.600	13599.587	ng/L	
Hg2600-3	BC	SAM	1710475-04RE1	1000	10/17/2017 14:19:41	77917-1.RAW	2:19:41 PM	3493.65	2		3487.6	21.554	21553.503	ng/L	
Hg2600-3	BC	SAM	1710474-01B	100	10/17/2017 14:23:50	77918-1.RAW	2:23:50 PM	52.24	2		46.2	0.211	21.073	ng/L	
Hg2600-3	BC	SAM	1710474-02B	100	10/17/2017 14:27:58	77919-1.RAW	2:27:58 PM	54.32	2		48.3	0.224	22.359	ng/L	
Hg2600-3	BC	SAM	1710475-01B	100	10/17/2017 14:32:06	77920-1.RAW	2:32:06 PM	24.65	2		18.6	0.040	4.016	ng/L	
Hg2600-3	BC	SAM	1710475-02B	100	10/17/2017 14:36:15	77921-1.RAW	2:36:15 PM	31.58	2		25.6	0.083	8.301	ng/L	
Hg2600-3	BC	SAM	1710475-03B	100	10/17/2017 14:40:24	77922-1.RAW	2:40:24 PM	20.84	2		14.8	0.017	1.661	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	10/17/2017 14:44:32	77923-1.RAW	2:44:32 PM	809.27			803.3	4.966	4.966	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	10/17/2017 14:48:41	77924-1.RAW	2:48:41 PM	20.24			14.2	0.088	0.088	ng/L	
Hg2600-3	BC	SAM	1710475-04B	100	10/17/2017 14:52:50	77925-1.RAW	2:52:50 PM	26.46	2		20.5	0.051	5.135	ng/L	
Hg2600-3	BC	SAM	1710476-01B	100	10/17/2017 14:56:58	77926-1.RAW	2:56:58 PM	210.83	2		204.8	1.191	119.115	ng/L	
Hg2600-3	BC	SAM	1710476-02B	100	10/17/2017 15:01:07	77927-1.RAW	3:01:07 PM	103.90	2		97.9	0.530	53.010	ng/L	
Hg2600-3	BC	SAM	1710474-01C	2500	10/17/2017 15:05:15	77928-1.RAW	3:05:15 PM	1714.54	2		1708.5	10.559	26398.338	ng/L	
Hg2600-3	BC	SAM	1710474-02C	2500	10/17/2017 15:09:24	77929-1.RAW	3:09:24 PM	1702.42	2		1696.4	10.484	26211.020	ng/L	
Hg2600-3	BC	SAM	1710475-01C	2500	10/17/2017 15:13:32	77930-1.RAW	3:13:32 PM	1687.77	2		1681.8	10.394	25984.600	ng/L	
Hg2600-3	BC	SAM	1710475-02C	2500	10/17/2017 15:17:40	77931-1.RAW	3:17:40 PM	1751.16	2		1745.2	10.786	26964.311	ng/L	
Hg2600-3	BC	SAM	1710475-03C	2500	10/17/2017 15:21:49	77932-1.RAW	3:21:49 PM	1781.42	2		1775.4	10.973	27431.988	ng/L	
Hg2600-3	BC	SAM	1710475-04C	2500	10/17/2017 15:25:57	77933-1.RAW	3:25:57 PM	1704.14	2		1698.1	10.495	26237.603	ng/L	
Hg2600-3	BC	SAM	1710476-01C	5000	10/17/2017 15:30:06	77934-1.RAW	3:30:06 PM	3418.38	2		3412.4	21.094	105470.902	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	10/17/2017 15:34:14	77935-1.RAW	3:34:14 PM	866.03			860.0	5.317	5.317	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	10/17/2017 15:38:22	77936-1.RAW	3:38:22 PM	26.01			20.0	0.124	0.124	ng/L	
Hg2600-3	BC	SAM	1710476-02C	5000	10/17/2017 15:42:31	77937-1.RAW	3:42:31 PM	3283.44	2		3277.4	20.260	101299.826	ng/L	
Hg2600-3	BC	SAM	F710363-DUP1	1000	10/17/2017 15:46:39	77938-1.RAW	3:46:39 PM	1336.78	2		1330.8	8.219	8219.473	ng/L	
Hg2600-3	BC	SAM	F710363-MS1	1000	10/17/2017 15:50:48	77939-1.RAW	3:50:48 PM	4604.52	2		4598.5	28.421	28421.035	ng/L	
Hg2600-3	BC	SAM	F710363-MSD1	1000	10/17/2017 15:54:56	77940-1.RAW	3:54:56 PM	4612.40	2		4606.4	28.470	28469.750	ng/L	
Hg2600-3	BC	BLK	F710292-BLK1	20	10/17/2017 15:59:05	77941-1.RAW	3:59:05 PM	44.31	3		38.3	0.237	4.736	ng/L	
Hg2600-3	BC	BLK	F710292-BLK2	20	10/17/2017 16:03:13	77942-1.RAW	4:03:13 PM	31.87	3		25.9	0.160	3.197	ng/L	
Hg2600-3	BC	BLK	F710292-BLK3	20	10/17/2017 16:07:21	77943-1.RAW	4:07:21 PM	24.92	3		18.9	0.117	2.338	ng/L	
Hg2600-3	BC	SAM	F710292-BS1	20	10/17/2017 16:11:30	77944-1.RAW	4:11:30 PM	909.39	3		903.4	5.414	108.272	ng/L	
Hg2600-3	BC	SAM	F710292-BSD1	20	10/17/2017 16:15:38	77945-1.RAW	4:15:38 PM	849.97	3		844.0	5.046	100.926	ng/L	
Hg2600-3	BC	SAM	F710292-BS2	400	10/17/2017 16:19:47	77946-1.RAW	4:19:47 PM	944.78	3		938.8	5.795	2318.012	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	10/17/2017 16:23:55	77947-1.RAW	4:23:55 PM	829.05			823.0	5.088	5.088	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8	1	10/17/2017 16:28:04	77948-1.RAW	4:28:04 PM	21.38			15.4	0.095	0.095	ng/L	
Hg2600-3	BC	SAM	1709630-19	100	10/17/2017 16:32:12	77949-1.RAW	4:32:12 PM	1749.60	3		1743.6	10.745	1074.485	ng/L	
Hg2600-3	BC	SAM	1709630-20	100	10/17/2017 16:36:20	77950-1.RAW	4:36:20 PM	1794.79	3		1788.8	11.024	1102.422	ng/L	
Hg2600-3	BC	SAM	1709631-01	100	10/17/2017 16:40:29	77951-1.RAW	4:40:29 PM	1800.76	3		1794.8	11.061	1106.112	ng/L	
Hg2600-3	BC	SAM	1709631-02	100	10/17/2017 16:44:37	77952-1.RAW	4:44:37 PM	1633.66	3		1627.7	10.028	1002.809	ng/L	
Hg2600-3	BC	SAM	1709631-03	100	10/17/2017 16:48:46	77953-1.RAW	4:48:46 PM	1592.90	3		1586.9	9.776	977.611	ng/L	
Hg2600-3	BC	SAM	1709631-04	100	10/17/2017 16:52:54	77954-1.RAW	4:52:54 PM	1572.30	3		1566.3	9.649	964.876	ng/L	
Hg2600-3	BC	SAM	1709631-06	100	10/17/2017 16:57:02	77955-1.RAW	4:57:02 PM	1786.66	3		1780.7	10.974	1097.396	ng/L	
Hg2600-3	BC	SAM	1709631-07	100	10/17/2017 17:01:11	77956-1.RAW	5:01:11 PM	1393.54	3		1387.5	8.544	854.364	ng/L	
Hg2600-3	BC	SAM	1709631-08	100	10/17/2017 17:05:19	77957-1.RAW	5:05:19 PM	1524.18	3		1518.2	9.351	935.127	ng/L	
Hg2600-3	BC	SAM	1709631-09	100	10/17/2017 17:09:28	77958-1.RAW	5:09:28 PM	2252.91	3		2246.9	13.856	1385.637	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV9	1	10/17/2017 17:13:36	77959-1.RAW	5:13:36 PM	836.51			830.5	5.134	5.134	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB9	1	10/17/2017 17:17:45	77960-1.RAW	5:17:45 PM	27.32			21.3	0.132	0.132	ng/L	
Hg2600-3	BC	SAM	1709631-10	100	10/17/2017 17:21:53	77961-1.RAW	5:21:53 PM	1562.89	3		1556.9	9.591	959.058	ng/L	
Hg2600-3	BC	SAM	1709631-11	100	10/17/2017 17:26:01	77962-1.RAW	5:26:01 PM	1514.50	3		1508.5	9.291	929.143	ng/L	
Hg2600-3	BC	SAM	1709631-12	100	10/17/2017 17:30:10	77963-1.RAW	5:30:10 PM	1817.55	3		1811.5	11.165	1116.492	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	SAM	1709631-13	100	10/17/2017 17:34:18	77964-1.RAW	5:34:18 PM	1998.03	3		1992.0	12.281	1228.067	ng/L	
Hg2600-3	BC	SAM	F710292-DUP1	100	10/17/2017 17:38:27	77965-1.RAW	5:38:27 PM	1443.31	3		1437.3	8.851	885.132	ng/L	
Hg2600-3	BC	SAM	F710292-MS1	400	10/17/2017 17:42:35	77966-1.RAW	5:42:35 PM	2363.40	3		2357.4	14.565	5826.044	ng/L	
Hg2600-3	BC	SAM	F710292-MSD1	400	10/17/2017 17:46:43	77967-1.RAW	5:46:43 PM	2367.90	3		2361.9	14.593	5837.172	ng/L	
Hg2600-3	BC	SAM	F710292-MS2	400	10/17/2017 17:50:52	77968-1.RAW	5:50:52 PM	2413.54	3		2407.5	14.875	5950.032	ng/L	
Hg2600-3	BC	SAM	F710292-MSD2	400	10/17/2017 17:55:00	77969-1.RAW	5:55:00 PM	2359.07	3		2353.1	14.538	5815.336	ng/L	
Hg2600-3	BC	SAM	1709631-09RE1	100	10/17/2017 17:59:09	77970-1.RAW	5:59:09 PM	2151.61	3		2145.6	13.230	1323.012	ng/L	
Hg2600-3	BC	CAL	SEQ-CCVA	1	10/17/2017 18:03:17	77971-1.RAW	6:03:17 PM	852.67			846.7	5.234	5.234	ng/L	
Hg2600-3	BC	CAL	SEQ-CCBA	1	10/17/2017 18:07:25	77972-1.RAW	6:07:25 PM	31.51			25.5	0.158	0.158	ng/L	
Hg2600-3	BC	SAM	EFGS07879 18000NG	5000	10/17/2017 18:16:31	77973-1.RAW	6:16:31 PM	5607.30		X	5601.3	34.628	173139.244	ng/L	
Hg2600-3	BC	SAM	EFGS03781 18000NG	5000	10/17/2017 18:20:39	77974-1.RAW	6:20:39 PM	5747.27		X	5741.3	35.493	177465.801	ng/L	
Hg2600-3	BC	SAM	EFGS07230 12000NG	5000	10/17/2017 18:24:47	77975-1.RAW	6:24:47 PM	3714.82		X	3708.8	22.928	114641.548	ng/L	
Hg2600-3	BC	SAM	EFGS09188 12000NG	5000	10/17/2017 18:28:56	77976-1.RAW	6:28:56 PM	3737.20		X	3731.2	23.067	115333.328	ng/L	
Hg2600-3	BC	CAL	SEQ-CCVB	1	10/17/2017 18:33:04	77977-1.RAW	6:33:04 PM	822.55			816.5	5.048	5.048	ng/L	
Hg2600-3	BC	CAL	SEQ-CCBB	1	10/17/2017 18:37:13	77978-1.RAW	6:37:13 PM	36.00			30.0	0.185	0.185	ng/L	

TotalMercury EPA1631 **Operat** BC **BlankSi** 6.0095 **Calib Eqn:** **Conc =** (Area-6.009 **Run Date:** ##### **Blank SD:** 1.622672304
Worksh THg2600 **CalibFa** 161.76 **Status:** **QC Warnings:**4/QC E **Run Time:** 18:12:21 **Blank RSD%:** 27.00194353
Method #### **R:** 1 **R2:** 1 **CF SD:** 6.85097295
Descrip THg26003-171017-1 **CF RSD%:** 4.235314069

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	4.23					77837-1.RAW	8:28:17	684.55	Clean	OK	1
clean										77838-1.RAW	8:31:08	0.00	Clean	NP	1
ws				6.01	0.00					77839-1.RAW	8:35:17	5.97	Sample	OK	1
ws				6.01	0.00					77840-1.RAW	8:39:25	2.31	Sample	OK	1
ws										77841-1.RAW	8:43:34	0.00	Sample	NP	1
SEQ-IBL1	A1		1	0.00	0.03					77842-1.RAW	8:47:42	4.52	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.04					77843-1.RAW	8:51:50	5.77	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					77844-1.RAW	8:55:59	7.74	Sample	OK	1
SEQ-CAL1	A4		1	6.01	0.53			106.12		77845-1.RAW	9:00:07	91.84	Sample	OK	1
SEQ-CAL2	A5		1	6.01	1.02			101.56		77846-1.RAW	9:04:16	170.29	Sample	OK	1
SEQ-CAL3	A6		1	6.01	5.01			100.28		77847-1.RAW	9:08:24	817.04	Sample	OK	1
SEQ-CAL4	A7		1	6.01	19.24			96.18		77848-1.RAW	9:12:33	3117.67	Sample	OK	1
SEQ-CAL5	A8		1	6.01	38.34			95.86		77849-1.RAW	9:16:41	6208.21	Sample	FB	1
SEQ-ICV1	A9		1	6.01	4.99			99.83		77850-1.RAW	9:20:49	813.45	Sample	OK	1
ws				6.01	0.43					77851-1.RAW	9:45:14	75.68	Sample	OK	1
F710347-BLK1	A10		100	6.01	5.26					77852-1.RAW	9:49:22	14.53	Sample	OK	1
F710347-BLK2	A11		100	6.01	3.18					77853-1.RAW	9:53:30	11.16	Sample	OK	1
F710347-BLK3	A12		100	6.01	4.51					77854-1.RAW	9:57:39	13.30	Sample	OK	1
F710347-BS1	B1		400	6.01	4815.35					77855-1.RAW	10:01:47	1953.32	Sample	OK	1
F710347-BSD1	B2		400	6.01	5075.23					77856-1.RAW	10:05:56	2058.41	Sample	OK	1
1710398-13	B3		100	6.01	90.23					77857-1.RAW	10:10:04	151.96	Sample	OK	1
1710398-14	B4		100	6.01	88.35					77858-1.RAW	10:14:12	148.92	Sample	OK	1
1710398-15	B5		100	6.01	83.64					77859-1.RAW	10:18:21	141.30	Sample	OK	1
1710398-16	B6		100	6.01	79.72					77860-1.RAW	10:22:29	134.96	Sample	OK	1
1710398-17	B7		100	6.01	105.96					77861-1.RAW	10:26:38	177.41	Sample	OK	1
SEQ-CCV1	B8		1	6.01	4.97			99.47		77862-1.RAW	10:30:46	810.49	Sample	OK	1
SEQ-CCB1	B9		1	6.01	0.03			0.00		77863-1.RAW	10:34:55	10.96	Sample	OK	1
1710398-18	B10		100	6.01	12.88					77864-1.RAW	10:39:03	26.85	Sample	OK	1
1710398-19	B11		100	6.01	9.16					77865-1.RAW	10:43:11	20.83	Sample	OK	1
1710398-20	B12		100	6.01	8.74					77866-1.RAW	10:47:20	20.15	Sample	OK	1
1710398-21	C1		100	6.01	11.81					77867-1.RAW	10:51:28	25.11	Sample	OK	1
1710398-22	C2		100	6.01	10.09					77868-1.RAW	10:55:37	22.33	Sample	OK	1
1710398-23	C3		100	6.01	11.22					77869-1.RAW	10:59:45	24.16	Sample	OK	1
1710398-24	C4		100	6.01	10.15					77870-1.RAW	11:03:54	22.43	Sample	OK	1
1710398-25	C5		100	6.01	11.30					77871-1.RAW	11:08:02	24.29	Sample	OK	1
1710398-26	C6		100	6.01	13.13					77872-1.RAW	11:12:10	27.25	Sample	OK	1
1710398-27	C7		100	6.01	13.14					77873-1.RAW	11:16:19	27.27	Sample	OK	1
SEQ-CCV2	C8		1	6.01	5.00			100.00		77874-1.RAW	11:20:27	814.78	Sample	OK	1
SEQ-CCB2	C9		1	6.01	0.02			0.00		77875-1.RAW	11:24:36	8.78	Sample	OK	1
1710398-13B	C10		100	6.01	4.59					77876-1.RAW	11:28:44	13.43	Sample	OK	1
1710398-14B	C11		100	6.01	3.11					77877-1.RAW	11:32:52	11.04	Sample	OK	1
1710398-15B	C12		100	6.01	5.62					77878-1.RAW	11:37:01	15.10	Sample	OK	1
1710398-16B	D1		100	6.01	6.71					77879-1.RAW	11:41:09	16.87	Sample	OK	1
1710398-17B	D2		100	6.01	6.65					77880-1.RAW	11:45:18	16.77	Sample	OK	1

1710398-18B	D3	100	6.01	5.07		77881-1.RAW	11:49:26	14.20	Sample	OK	1
1710398-19B	D4	100	6.01	6.59		77882-1.RAW	11:53:35	16.66	Sample	OK	1
1710398-20B	D5	100	6.01	6.58		77883-1.RAW	11:57:43	16.66	Sample	OK	1
1710398-21B	D6	100	6.01	7.87		77884-1.RAW	12:01:51	18.74	Sample	OK	1
1710398-22B	D7	100	6.01	9.84		77885-1.RAW	12:06:00	21.93	Sample	OK	1
SEQ-CCV3	D8	1	6.01	4.88	97.67	77886-1.RAW	12:10:08	795.95	Sample	OK	1
SEQ-CCB3	D9	1	6.01	0.02	0.00	77887-1.RAW	12:14:17	8.83	Sample	OK	1
1710398-23B	D10	100	6.01	6.27		77888-1.RAW	12:18:25	16.16	Sample	OK	1
1710398-24B	D11	100	6.01	4.07		77889-1.RAW	12:22:33	12.59	Sample	OK	1
1710398-25B	D12	100	6.01	7.49		77890-1.RAW	12:26:42	18.13	Sample	OK	1
1710398-26B	A1	100	6.01	4.95		77891-1.RAW	12:30:50	14.02	Sample	OK	1
1710398-27B	A2	100	6.01	6.45		77892-1.RAW	12:34:59	16.44	Sample	OK	1
F710347-DUP1	A3	100	6.01	104.91		77893-1.RAW	12:39:07	175.71	Sample	OK	1
F710347-MS1	A4	100	6.01	349.78	330.25	77894-1.RAW	12:43:16	571.80	Sample	OK	1
F710347-MSD1	A5	100	6.01	355.13		77895-1.RAW	12:47:24	580.46	Sample	OK	1
F710347-MS2	A6	100	6.01	611.79	171.31	77896-1.RAW	12:51:32	995.64	Sample	OK	1
F710347-MSD2	A7	100	6.01	618.29		77897-1.RAW	12:55:41	1006.15	Sample	OK	1
SEQ-CCV4	A8	1	6.01	5.12	102.40	77898-1.RAW	12:59:49	834.23	Sample	OK	1
SEQ-CCB4	A9	1	6.01	0.08	0.00	77899-1.RAW	13:03:58	18.66	Sample	OK	1
F710363-BLK1	A10	100	6.01	6.41		77900-1.RAW	13:08:06	16.38	Sample	OK	1
F710363-BLK2	A11	100	6.01	9.43		77901-1.RAW	13:12:15	21.27	Sample	OK	1
F710363-BLK3	A12	100	6.01	6.68		77902-1.RAW	13:16:23	16.81	Sample	OK	1
F710363-BS1	B1	400	6.01	1824.61		77903-1.RAW	13:20:31	743.87	Sample	OK	1
F710363-BSD1	B2	400	6.01	1809.13		77904-1.RAW	13:24:40	737.61	Sample	OK	1
1710474-01	B3	1000	6.01	17123.98		77905-1.RAW	13:28:48	2775.96	Sample	OK	1
1710474-02	B4	1000	6.01	14267.44		77906-1.RAW	13:32:57	2313.89	Sample	OK	1
1710475-01	B5	1000	6.01	8724.76		77907-1.RAW	13:37:05	1417.31	Sample	OK	1
1710475-02	B6	1000	6.01	9457.06		77908-1.RAW	13:41:13	1535.77	Sample	OK	1
1710475-03	B7	400	6.01	13015.98		77909-1.RAW	13:45:22	5269.62	Sample	FB	1
SEQ-CCV5	B8	1	6.01	5.14	102.88	77910-1.RAW	13:49:30	838.06	Sample	OK	1
SEQ-CCB5	B9	1	6.01	0.14	0.00	77911-1.RAW	13:53:39	27.90	Sample	OK	1
1710475-04	B10	400	6.01	20786.81		77912-1.RAW	13:57:47	8412.11	Sample	FB	1
ws			6.01	0.70		77914-1.RAW	14:03:08	118.98	Sample	OK	1
1710476-01	B11	2500	6.01	54215.96		77913-2.RAW	14:07:16	3513.96	Sample	OK	1
1710476-02	B12	2500	6.01	51269.27		77915-1.RAW	14:11:24	3323.30	Sample	OK	1
1710475-03RE1	C1	1000	6.01	13606.99		77916-1.RAW	14:15:33	2207.05	Sample	OK	1
1710475-04RE1	C2	1000	6.01	21560.78		77917-1.RAW	14:19:41	3493.65	Sample	OK	1
1710474-01B	C3	100	6.01	28.58		77918-1.RAW	14:23:50	52.24	Sample	OK	1
1710474-02B	C4	100	6.01	29.86		77919-1.RAW	14:27:58	54.32	Sample	OK	1
1710475-01B	C5	100	6.01	11.52		77920-1.RAW	14:32:06	24.65	Sample	OK	1
1710475-02B	C6	100	6.01	15.81		77921-1.RAW	14:36:15	31.58	Sample	OK	1
1710475-03B	C7	100	6.01	9.17		77922-1.RAW	14:40:24	20.84	Sample	OK	1
SEQ-CCV6	C8	1	6.01	4.97	99.32	77923-1.RAW	14:44:32	809.27	Sample	OK	1
SEQ-CCB6	C9	1	6.01	0.09	0.00	77924-1.RAW	14:48:41	20.24	Sample	OK	1
1710475-04B	C10	100	6.01	12.64		77925-1.RAW	14:52:50	26.46	Sample	OK	1
1710476-01B	C11	100	6.01	126.62		77926-1.RAW	14:56:58	210.83	Sample	OK	1
1710476-02B	C12	100	6.01	60.52		77927-1.RAW	15:01:07	103.90	Sample	OK	1
1710474-01C	D1	2500	6.01	26405.59		77928-1.RAW	15:05:15	1714.54	Sample	OK	1
1710474-02C	D2	2500	6.01	26218.35		77929-1.RAW	15:09:24	1702.42	Sample	OK	1

1710475-01C	D3	2500	6.01	25991.91		77930-1.RAW	15:13:32	1687.77	Sample	OK	1
1710475-02C	D4	2500	6.01	26971.64		77931-1.RAW	15:17:40	1751.16	Sample	OK	1
1710475-03C	D5	2500	6.01	27439.30		77932-1.RAW	15:21:49	1781.42	Sample	OK	1
1710475-04C	D6	2500	6.01	26244.84		77933-1.RAW	15:25:57	1704.14	Sample	OK	1
1710476-01C	D7	5000	6.01	105477.57		77934-1.RAW	15:30:06	3418.38	Sample	FB	1
SEQ-CCV7	D8	1	6.01	5.32	106.33	77935-1.RAW	15:34:14	866.03	Sample	OK	1
SEQ-CCB7	D9	1	6.01	0.12	0.00	77936-1.RAW	15:38:22	26.01	Sample	OK	1
1710476-02C	D10	5000	6.01	101306.25		77937-1.RAW	15:42:31	3283.44	Sample	OK	1
F710363-DUP1	D11	1000	6.01	8226.90		77938-1.RAW	15:46:39	1336.78	Sample	OK	1
F710363-MS1	D12	1000	6.01	28428.28	345.51	77939-1.RAW	15:50:48	4604.52	Sample	OK	1
F710363-MSD1	A1	1000	6.01	28477.02		77940-1.RAW	15:54:56	4612.40	Sample	FB	1
F710292-BLK1	A2	20	6.01	4.74		77941-1.RAW	15:59:05	44.31	Sample	OK	1
F710292-BLK2	A3	20	6.01	3.20		77942-1.RAW	16:03:13	31.87	Sample	OK	1
F710292-BLK3	A4	20	6.01	2.34		77943-1.RAW	16:07:21	24.92	Sample	OK	1
F710292-BS1	A5	20	6.01	111.69		77944-1.RAW	16:11:30	909.39	Sample	OK	1
F710292-BSD1	A6	20	6.01	104.35		77945-1.RAW	16:15:38	849.97	Sample	OK	1
F710292-BS2	A7	400	6.01	2321.41		77946-1.RAW	16:19:47	944.78	Sample	OK	1
SEQ-CCV8	A8	1	6.01	5.09	101.76	77947-1.RAW	16:23:55	829.05	Sample	OK	1
SEQ-CCB8	A9	1	6.01	0.10	0.00	77948-1.RAW	16:28:04	21.38	Sample	OK	1
1709630-19	A10	100	6.01	1077.90		77949-1.RAW	16:32:12	1749.60	Sample	OK	1
1709630-20	A11	100	6.01	1105.83		77950-1.RAW	16:36:20	1794.79	Sample	OK	1
1709631-01	A12	100	6.01	1109.52		77951-1.RAW	16:40:29	1800.76	Sample	OK	1
1709631-02	B1	100	6.01	1006.22		77952-1.RAW	16:44:37	1633.66	Sample	OK	1
1709631-03	B2	100	6.01	981.03		77953-1.RAW	16:48:46	1592.90	Sample	OK	1
1709631-04	B3	100	6.01	968.29		77954-1.RAW	16:52:54	1572.30	Sample	OK	1
1709631-06	B4	100	6.01	1100.81		77955-1.RAW	16:57:02	1786.66	Sample	OK	1
1709631-07	B5	100	6.01	857.78		77956-1.RAW	17:01:11	1393.54	Sample	OK	1
1709631-08	B6	100	6.01	938.54		77957-1.RAW	17:05:19	1524.18	Sample	OK	1
1709631-09	B7	100	6.01	1389.05		77958-1.RAW	17:09:28	2252.91	Sample	FB	1
SEQ-CCV9	B8	1	6.01	5.13	102.68	77959-1.RAW	17:13:36	836.51	Sample	OK	1
SEQ-CCB9	B9	1	6.01	0.13	0.00	77960-1.RAW	17:17:45	27.32	Sample	OK	1
1709631-10	B10	100	6.01	962.47		77961-1.RAW	17:21:53	1562.89	Sample	OK	1
1709631-11	B11	100	6.01	932.56		77962-1.RAW	17:26:01	1514.50	Sample	OK	1
1709631-12	B12	100	6.01	1119.91		77963-1.RAW	17:30:10	1817.55	Sample	OK	1
1709631-13	C1	100	6.01	1231.48		77964-1.RAW	17:34:18	1998.03	Sample	FB	1
F710292-DUP1	C2	100	6.01	888.55		77965-1.RAW	17:38:27	1443.31	Sample	FB	1
F710292-MS1	C3	400	6.01	5829.41	655.32	77966-1.RAW	17:42:35	2363.40	Sample	OK	1
F710292-MSD1	C4	400	6.01	5840.55		77967-1.RAW	17:46:43	2367.90	Sample	OK	1
F710292-MS2	C5	400	6.01	5953.41	101.90	77968-1.RAW	17:50:52	2413.54	Sample	OK	1
F710292-MSD2	C6	400	6.01	5818.70		77969-1.RAW	17:55:00	2359.07	Sample	OK	1
1709631-09RE1	C9	100	6.01	1326.42		77970-1.RAW	17:59:09	2151.61	Sample	OK	1
SEQ-CCVA	C7	1	6.01	5.23		77971-1.RAW	18:03:17	852.67	Sample	OK	1
SEQ-CCBA	C8	1	6.01	0.16		77972-1.RAW	18:07:25	31.51	Sample	OK	1
EFGS07879 180(A1	A1	5000	6.01	173137.53		77973-1.RAW	18:16:31	5607.30	Sample	FB	1
EFGS03781 180(A2	A2	5000	6.01	177464.26		77974-1.RAW	18:20:39	5747.27	Sample	FB	1
EFGS07230 120(A3	A3	5000	6.01	114640.53		77975-1.RAW	18:24:47	3714.82	Sample	OK	1
EFGS09188 120(A4	A4	5000	6.01	115332.38		77976-1.RAW	18:28:56	3737.20	Sample	OK	1
SEQ-CCVB	A5	1	6.01	5.05		77977-1.RAW	18:33:04	822.55	Sample	OK	1
SEQ-CCBB	A6	1	6.01	0.19		77978-1.RAW	18:37:13	36.00	Sample	OK	1

ANALYSIS SEQUENCE QUALITY ASSURANCE

7J18016

PEER-REVIEWED

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *R 10/10/17*
 Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18016-IBL1 ✓	QC	1			
7J18016-IBL2 ✓	QC	2			
7J18016-IBL3 ✓	QC	3			
7J18016-CAL1 ✓	QC	4	1704505	✓	
7J18016-CAL2 ✓	QC	5	1704506	✓	
7J18016-CAL3 ✓	QC	6	1704507	✓	
7J18016-CAL4 ✓	QC	7	1704508	✓	
7J18016-CAL5 ✓	QC	8	1704509	✓	
7J18016-ICV1 ✓	QC	9	1705628	✓	
7J18016-CCV1 ✓	QC	10	1705628	✓	
7J18016-CCB1 ✓	QC	11			
7J18016-CCV2 ✓	QC	12	1705628	✓	
7J18016-CCB2 ✓	QC	13			
7J18016-CCV3 ✓	QC	14	1705628	✓	
7J18016-CCB3 ✓	QC	15			
7J18016-CCV4 ✓	QC	16	1705628	✓	
7J18016-CCB4 ✓	QC	17			
7J18016-CCV5 ✓	QC	18	1705628	✓	
7J18016-CCB5 ✓	QC	19			
7J18016-CCV6 ✓	QC	20	1705628	✓	
7J18016-CCB6 ✓	QC	21			
7J18016-CCV7 ✓	QC	22	1705628	✓	
7J18016-CCB7 ✓	QC	23			
F710292-BLK1 ✓	QC	24			
F710292-BLK2 ✓	QC	25			
F710292-BLK3 ✓	QC	26			
F710292-BS1 ✓	QC	27			
F710292-BSD1 ✓	QC	28			
F710292-BS2 ✓	QC	29			
7J18016-CCV8 ✓	QC	30	1705628	✓	
7J18016-CCB8 ✓	QC	31			
1709630-19 ✓	Hg-CVAFS-T-7030	32			
1709630-20 ✓	Hg-CVAFS-T-7030	33			
1709631-01 ✓	Hg-CVAFS-T-7030	34			
1709631-02 ✓	Hg-CVAFS-T-7030	35			

ANALYSIS SEQUENCE

7J18016

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709631-03 ✓	Hg-CVAFS-T-7030	36			
1709631-04 ✓	Hg-CVAFS-T-7030	37			
1709631-06 ✓	Hg-CVAFS-T-7030	38			
1709631-07 ✓	Hg-CVAFS-T-7030	39			
1709631-08 ✓	Hg-CVAFS-T-7030	40			
1709631-09 ✓	Hg-CVAFS-T-7030	41			
7J18016-CCV9 ✓	QC	42	1705628 ✓		
7J18016-CCB9 ✓	QC	43			
1709631-10 ✓	Hg-CVAFS-T-7030	44			
1709631-11 ✓	Hg-CVAFS-T-7030	45			
1709631-12 ✓	Hg-CVAFS-T-7030	46			
1709631-13 ✓	Hg-CVAFS-T-7030	47			
F710292-DUP1 ✓	QC	48			
F710292-MS1 ✓	QC	49			
F710292-MSD1 ✓	QC	50			
F710292-MS2 ✓	QC	51			
F710292-MSD2 ✓	QC	52			
1709631-09RE1 ✓	Hg-CVAFS-T-7030	53			Added 10/18/2017 by BC
7J18016-CCVA ✓	QC	54	1705628 ✓		
7J18016-CCBA ✓	QC	55			

Beck 10/18/17
 Samples Loaded By Date

Beck 10/18/17
 Data Processed By Date

PREPARATION BENCH SHEET

F710292

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710292-BLK1	Blank	0.25	20					
F710292-BLK2	Blank	0.25	20					
F710292-BLK3	Blank	0.25	20					
F710292-BS1	LCS	0.25	20	1704421	20			
F710292-BS2	DORM4	0.127	20	1705412	127			
F710292-BSD1	LCS Dup	0.25	20	1704421	20			
F710292-DUP1	Duplicate [1709630-19]	0.265	20					
F710292-MS1	Matrix Spike [1709630-19]	0.282	20	1705554	100			
F710292-MS2	Matrix Spike [1709631-13]	0.284	20	1705554	100			
F710292-MSD1	Matrix Spike Dup [1709630-19]	0.271	20	1705554	100			
F710292-MSD2	Matrix Spike Dup [1709631-13]	0.269	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00
			1706064	70/30 Digestion Acid	09-Apr-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710292

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709630-19	ES-13_17HC001_091417_BLM_19_WB	0.282	20	-	-	-		
1709630-20	ES-13_17HC001_091417_BLM_20_WB	0.278	20	-	-	-		
1709631-01	ES-15_17HC001_091417_BLM_01_WB	0.287	20	-	-	-		
1709631-02	ES-15_17HC001_091417_BLM_02_WB	0.28	20	-	-	-		
1709631-03	ES-15_17HC001_091417_BLM_03_WB	0.294	20	-	-	-		
1709631-04	ES-15_17HC001_091417_BLM_04_WB	0.271	20	-	-	-		
1709631-06	ES-15_17HC001_091417_BLM_06_WB	0.28	20	-	-	-		
1709631-07	ES-15_17HC001_091417_BLM_07_WB	0.282	20	-	-	-		
1709631-08	ES-15_17HC001_091417_BLM_08_WB	0.284	20	-	-	-		
1709631-09	ES-15_17HC001_091417_BLM_09_WB	0.284	20	-	-	-		
1709631-09RE1	ES-15_17HC001_091417_BLM_09_WB	0.284	20	-	-	-	Added 10/18/2017 by BC	Added 10/18/2017 by BC
1709631-10	ES-15_17HC001_091417_BLM_10_WB	0.29	20	-	-	-		
1709631-11	ES-15_17HC001_091417_BLM_11_WB	0.288	20	-	-	-		
1709631-12	ES-15_17HC001_091417_BLM_12_WB	0.283	20	-	-	-		
1709631-13	ES-15_17HC001_091417_BLM_13_WB	0.286	20	-	-	-		

PREPARATION BENCH SHEET

2400-3

Px 10/17/17

F710292

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710292-BLK1	Blank	0.25	20					20x
F710292-BLK2	Blank	0.25	20					20x
F710292-BLK3	Blank	0.25	20					20x
F710292-BS1	LCS	0.25	20	1704421	20			20x
F710292-BS2	DORM4	0.127	20	1705412	127			400x
F710292-BSD1	LCS Dup	0.25	20	1704421	20			20x
F710292-DUP1	Duplicate [1709630-19]	0.265	20					100x
F710292-MS1	Matrix Spike	0.282	20	1705554	100			400x
F710292-MS2	Matrix Spike	0.284	20	1705554	100			400x
F710292-MSD1	Matrix Spike Dup	0.271	20	1705554	100			400x
F710292-MSD2	Matrix Spike Dup	0.269	20	1705554	100			400x

Standard ID(s):
 1704421 THg 100ng/mL Primary Spiking Standard
 1705412 DORM-4
 1705554 THg 1,000ng/mL Secondary Spiking Standard

Expiration:
 21-Oct-17 00:00
 06-Jan-20 00:00
 18-Mar-18 00:00

Reagent ID(s):
 1702551 Boiling Chips for AFS prep
 1706064 70/30 Digestion Acid
 1706079 5% BrCl

Expiration:
 31-Dec-17 00:00
 09-Apr-18 00:00
 14-Mar-18 00:00

20x = 2.5mL
 400x = 12.5mL
 100x = 500mL

1705610
 1705611
 1705961
 1703182

PREPARATION BENCH SHEET

F710292

Eurofins Frontier Global Sciences, Inc.

2600-3

Bc 10/17/17

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709630-19	ES-13_17HC001_091417_BLM_19_WB	0.282	20	-	-	-	100x -	
1709630-20	ES-13_17HC001_091417_BLM_20_WB	0.278	20	-	-	-	100x -	
1709631-01	ES-15_17HC001_091417_BLM_01_WB	0.287	20	-	-	-	100x -	
1709631-02	ES-15_17HC001_091417_BLM_02_WB	0.28	20	-	-	-	100x -	
1709631-03	ES-15_17HC001_091417_BLM_03_WB	0.294	20	-	-	-	100x -	
1709631-04	ES-15_17HC001_091417_BLM_04_WB	0.271	20	-	-	-	100x -	
1709631-06	ES-15_17HC001_091417_BLM_06_WB	0.28	20	-	-	-	100x -	
1709631-07	ES-15_17HC001_091417_BLM_07_WB	0.282	20	-	-	-	100x -	
1709631-08	ES-15_17HC001_091417_BLM_08_WB	0.284	20	-	-	-	100x -	
1709631-09	ES-15_17HC001_091417_BLM_09_WB	0.284	20	-	-	-	100x -	
1709631-10	ES-15_17HC001_091417_BLM_10_WB	0.29	20	-	-	-	100x -	
1709631-11	ES-15_17HC001_091417_BLM_11_WB	0.288	20	-	-	-	100x -	
1709631-12	ES-15_17HC001_091417_BLM_12_WB	0.283	20	-	-	-	100x -	
1709631-13	ES-15_17HC001_091417_BLM_13_WB	0.286	20	-	-	-	100x -	

Failing Data Report - 7J18016

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Beck 10/18/17
Analyst Reviewed By Date

[Signature] 10/19/17
Peer Reviewed By Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE
PEER-REVIEWED

7J18017

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *R* 10/18/17 Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18017-IBL1 ✓	QC	1			
7J18017-IBL2 ✓	QC	2			
7J18017-IBL3 ✓	QC	3			
7J18017-CAL1 ✓	QC	4	1704505	✓	
7J18017-CAL2 ✓	QC	5	1704506	✓	
7J18017-CAL3 ✓	QC	6	1704507	✓	
7J18017-CAL4 ✓	QC	7	1704508	✓	
7J18017-CAL5 ✓	QC	8	1704509	✓	
7J18017-ICV1 ✓	QC	9	1705628	✓	
F710347-BLK1 ✓	QC	10			
F710347-BLK2 ✓	QC	11			
F710347-BLK3 ✓	QC	12			
F710347-BS1 ✓	QC	13			
F710347-BSD1 ✓	QC	14			
1710398-13 ✓	Hg_FSTM_TRAP_A	15			
1710398-14 ✓	Hg_FSTM_TRAP_A	16			
1710398-15 ✓	Hg_FSTM_TRAP_A	17			
1710398-16 ✓	Hg_FSTM_TRAP_A	18			
1710398-17 ✓	Hg_FSTM_TRAP_A	19			
7J18017-CCV1 ✓	QC	20	1705628	✓	
7J18017-CCB1 ✓	QC	21			
1710398-18 ✓	Hg_FSTM_TRAP_A	22			
1710398-19 ✓	Hg_FSTM_TRAP_A	23			
1710398-20 ✓	Hg_FSTM_TRAP_A	24			
1710398-21 ✓	Hg_FSTM_TRAP_A	25			
1710398-22 ✓	Hg_FSTM_TRAP_A	26			
1710398-23 ✓	Hg_FSTM_TRAP_A	27			
1710398-24 ✓	Hg_FSTM_TRAP_A	28			
1710398-25 ✓	Hg_FSTM_TRAP_A	29			
1710398-26 ✓	Hg_FSTM_TRAP_A	30			
1710398-27 ✓	Hg_FSTM_TRAP_A	31			
7J18017-CCV2 ✓	QC	32	1705628	✓	
7J18017-CCB2 ✓	QC	33			
7J18017-CCV3 ✓	QC	34	1705628	✓	
7J18017-CCB3 ✓	QC	35			

ANALYSIS SEQUENCE

7J18017

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F710347-DUP1 ✓	QC	36			
F710347-MS1 ✓	QC	37			
F710347-MSD1 ✓	QC	38			
F710347-MS2 ✓	QC	39			
F710347-MSD2 ✓	QC	40			
7J18017-CCV4 ✓	QC	41	1705628	✓	
7J18017-CCB4 ✓	QC	42			
F710363-BLK1 ✓	QC	43			
F710363-BLK2 ✓	QC	44			
F710363-BLK3 ✓	QC	45			
F710363-BS1 ✓	QC	46			
F710363-BSD1 ✓	QC	47			
1710474-01 ✓	Hg_FSTM_TRAP_A	48			AFS - Take photos of trap if heavy particulate present and send to PM
1710474-02 ✓	Hg_FSTM_TRAP_A	49			AFS - Take photos of trap if heavy particulate present and send to PM
1710475-01 ✓	Hg_FSTM_TRAP_A	50			AFS - Take photos of trap if heavy particulate present and send to PM
1710475-02 ✓	Hg_FSTM_TRAP_A	51			AFS - Take photos of trap if heavy particulate present and send to PM
1710475-03 ✓	Hg_FSTM_TRAP_A	52			AFS - Take photos of trap if heavy particulate present and send to PM
7J18017-CCV5 ✓	QC	53	1705628	✓	
7J18017-CCB5 ✓	QC	54			
1710475-04 ✓	Hg_FSTM_TRAP_A	55			AFS - Take photos of trap if heavy particulate present and send to PM
1710476-01 ✓	Hg_FSTM_TRAP_A	56			
1710476-02 ✓	Hg_FSTM_TRAP_A	57			
1710475-03RE1 ✓	Hg_FSTM_TRAP_A	58			Added 10/18/2017 by BC
1710475-04RE1 ✓	Hg_FSTM_TRAP_A	59			Added 10/18/2017 by BC
7J18017-CCV6 ✓	QC	60	1705628	✓	
7J18017-CCB6 ✓	QC	61			
7J18017-CCV7 ✓	QC	62	1705628	✓	
7J18017-CCB7 ✓	QC	63			
F710363-DUP1 ✓	QC	64			
F710363-MS1 ✓	QC	65			
F710363-MSD1 ✓	QC	66			
7J18017-CCV8 ✓	QC	67	1705628	✓	
7J18017-CCB8 ✓	QC	68			

ANALYSIS SEQUENCE

7J18017

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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B. King 10/18/17
Samples Loaded By Date

B. King 10/18/17
Data Processed By Date

PREPARATION BENCH SHEET

F710363

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/16/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710363-BLK1	Blank	1	100					
F710363-BLK2	Blank	1	100					
F710363-BLK3	Blank	1	100					
F710363-BS1	LCS	1	100	1705554	200			
F710363-BSD1	LCS Dup	1	100	1705554	200			
F710363-DUP1	Duplicate [1710475-01] ✓	1	100					
F710363-MS1	Matrix Spike [1710475-01] ✓	0.0005	0.05	1704422 ✓	100 ✓			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.05mL ✓
F710363-MSD1	Matrix Spike Dup [1710475-01] ✓	0.0005	0.05	1704422	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.05mL ✓

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00
			1706064	70/30 Digestion Acid	09-Apr-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710363

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/16/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710474-01	EFGS09211 31/32 TRAP A 9/29/17 - 10/2/17	1	100	-	-	-	1389.405 L AFS - Take photos of trap if	
1710474-02	EFGS10148 31/32 TRAP B 9/29/17 - 10/2/17	1	100	-	-	-	1153.365 L AFS - Take photos of trap if	
1710475-01	EFGS09089 Unit 33 Trap A 9/29/17 - 10/4/17	1	100	-	-	-	2137.095 L AFS - Take photos of trap if	
1710475-02	EFGS09234 Unit 33 Trap B 9/29/17 - 10/4/17	1	100	-	-	-	2822.076 L AFS - Take photos of trap if	
1710475-03	EFGS09204 Unit 31/32 Trap A 10/2/17 - 10/5/17	1	100	-	-	-	701.589 L AFS - Take photos of trap if	
1710475-03RE1	EFGS09204 Unit 31/32 Trap A 10/2/17 - 10/5/17	1	100	-	-	-	701.589 L Added 10/18/2017 by BC	Added 10/18/2017 by BC
1710475-04	EFGS10087 Unit 31/32 Trap B 10/2/17 - 10/5/17	1	100	-	-	-	595.429 L AFS - Take photos of trap if	
1710475-04RE1	EFGS10087 Unit 31/32 Trap B 10/2/17 - 10/5/17	1	100	-	-	-	595.429 L Added 10/18/2017 by BC	Added 10/18/2017 by BC
1710476-01	EFGS08098 Trap A	1	100	-	-	-	1181.10 L	
1710476-02	EFGS08099 TrapB	1	100	-	-	-	1181.42 L	

PREPARATION BENCH SHEET

2000-3
BC 10/17/17

F710363

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/16/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710363-BLK1	Blank	1	100					100X
F710363-BLK2	Blank	1	100					100X
F710363-BLK3	Blank	1	100					100X
F710363-BS1	LCS	1	100	1705554	200			400X
F710363-BSD1	LCS Dup	1	100	1705554	200			400X
F710363-DUP1	Duplicate 1710475-01	1	100					1000X
F710363-MS1	Matrix Spike 1710475-01	1	100	1704422	100			1000X
F710363-MSD1	Matrix Spike Dup 1710475-01	1	100	1704422	100			1000X

Standard ID(s): 1705554
 Description: THg 1,000ng/mL Secondary Spiking Standard
 Expiration: 18-Mar-18 00:00

100X = 500µL
 400X = 125µL
 1000X = 50µL
 2500X = 20µL
 5000X = 10µL

1705610
 1705611
 1705961
 1703182

PREPARATION BENCH SHEET

2600-3
 34 10/17/17

F710363

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/16/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments	C
1710474-01	EFGS09211 31/32 TRAP A 9/29/17 - 10/2/17	1	100	-	-	-	1389.405 L AFS - Take photos of trap if 1000X	100X -	2500X -
1710474-02	EFGS10148 31/32 TRAP B 9/29/17 - 10/2/17	1	100	-	-	-	1153.365 L AFS - Take photos of trap if 1000X	100X -	2500X -
1710475-01	EFGS09089 Unit 33 Trap A 9/29/17 - 10/2/17	1	100	-	-	-	2137.095 L AFS - Take photos of trap if 1000X	100X -	2500X
1710475-02	EFGS09234 Unit 33 Trap B 9/29/17 - 10/2/17	1	100	-	-	-	2822.076 L AFS - Take photos of trap if 1000X	100X -	2500X
1710475-03	EFGS09204 Unit 31/32 Trap A 9/29/17 - 10/2/17	1	100	-	-	-	701.589 L AFS - Take photos of trap if 400X → 1000X	100X -	2500X
1710475-04	EFGS10087 Unit 31/32 Trap B 9/29/17 - 10/2/17	1	100	-	-	-	595.429 L AFS - Take photos of trap if 400X → 1000X	100X -	2500X
1710476-01	EFGS08098 Trap A	1	100	-	-	-	1181.10 L 2500X	100X -	5000X
1710476-02	EFGS08099 Trap B	1	100	-	-	-	1181.42 L 2500X	100X -	5000X

Trap Digestions

Name: DM Date: 10/16/17 Batch ID: F710363
 Work Order(s): 1710474, 1710475, 1710476 Analysis: Total Hg Other _____
 Sample Matrix: FSTM KCl PHg Plug Other _____
 Prep: 70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)
 start time: 1620, start temp (°C): 54.0 (raw) 53.7 (w/ CF)
 end time: 1830, end temp (°C): 59.0 (raw) 58.7 (w/ CF) Timer? Yes No
 5% BrCl Oxidation (EFGS-031) start time: _____ (allow samples to sit for at least 4 hr before analysis)
 Other _____

Sample ID Number	Digest vol. (mL)	Notes
F710363-BLK1	100	
F710363-BLK2	100	Spike ID: <u>1705554</u>
F710363-BLK3	100	Spike Amount (µL): <u>200</u>
F710363-B51	100	Spike Witness: <u>10/16/17 DM</u>
F710363-B501	100	
1710474-01A	100	
1710474-01B	100	BrCl ID: <u>1706079</u>
1710474-01C	100	70/30: <u>170004</u>
1710474-02A	100	Other: <u>NA</u>
1710474-02B	100	
1710474-02C	100	Thermometer: <u>13698</u>
1710475-01A	100	Dispensers: 02K27494 <input checked="" type="checkbox"/>
1710475-01B	100	04N73497 <input type="checkbox"/>
1710475-01C	100	Other <u>15406623</u>
1710475-02A	100	
1710475-02B	100	
1710475-02C	100	Pipette ID: <u>0007852</u>
1710475-03A	100	Cal. Date: <u>10/16/17</u>
1710475-03B	100	
1710475-03C	100	Vials and Jars lot# <u>00068732</u>
1710475-04A	100	Trap Material Lot#: <u>1704096</u>
1710475-04B	100	Loader Mass Verified: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1710475-04C	100	
1710476-01A	100	
1710476-01B	100	
1710476-01C	100	
1710476-02A	100	Comments:
1710476-02B	100	1710475-01 Residue on trap. next. 01A
1710476-02C	100	1710475-02 Residue on trap.
		1710474-01C, 02C } Spiked
		1710475-01C, 02C } 2700ng
		03C, 04C }
		1710476-01C, 02C Spiked
		12,000
<u>10/14/17 DM</u>		

PREPARATION BENCH SHEET

F710347

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710347-BLK1	Blank	1	40					
F710347-BLK2	Blank	1	40					
F710347-BLK3	Blank	1	40					
F710347-BS1	LCS	1	40	1705554	200			
F710347-BSD1	LCS Dup	1	40	1705554	200			
F710347-DUP1	Duplicate [1710398-17] ✓	1	40					
F710347-MS1	Matrix Spike [1710398-13] ✓	0.0125	0.5	1704483	125 ✓			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL ✓
F710347-MS2	Matrix Spike [1710398-17] ✓	0.0125	0.5	1704422	25 ✓			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL ✓
F710347-MSD1	Matrix Spike Dup [1710398-13] ✓	0.0125	0.5	1704483	125 ✓			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL ✓
F710347-MSD2	Matrix Spike Dup [1710398-17] ✓	0.0125	0.5	1704422	25 ✓			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL ✓

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1704483	THg 1ng/mL Calibration Standard	24-Oct-17 00:00	1705610	THg Washstation (0.5% BrCl)	
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00
			1706064	70/30 Digestion Acid	09-Apr-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710347

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710398-13	HGS1718-6-14	1	40	-	-	-	No volume listed	
1710398-14	HGS1718-6-15	1	40	-	-	-	No volume listed	
1710398-15	HGS1718-6-16	1	40	-	-	-	No volume listed	
1710398-16	HGS1718-6-17	1	40	-	-	-	No volume listed	
1710398-17	HGS1718-6-18	1	40	-	-	-	No volume listed	
1710398-18	HGS1718-7-1	1	40	-	-	-	No volume listed	
1710398-19	HGS1718-7-2	1	40	-	-	-	No volume listed	
1710398-20	HGS1718-7-3	1	40	-	-	-	No volume listed	
1710398-21	HGS1718-7-4	1	40	-	-	-	No volume listed	
1710398-22	HGS1718-7-5	1	40	-	-	-	No volume listed	
1710398-23	HGS1718-7-6	1	40	-	-	-	No volume listed	
1710398-24	HGS1718-7-7	1	40	-	-	-	No volume listed	
1710398-25	HGS1718-7-8	1	40	-	-	-	No volume listed	
1710398-26	HGS1718-7-9	1	40	-	-	-	No volume listed	
1710398-27	HGS1718-7-10	1	40	-	-	-	No volume listed	

PREPARATION BENCH SHEET

2600-3

~~10/18/17~~ 10/17/17 BC

F710347

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710347-BLK1	Blank	1	40					100X -
F710347-BLK2	Blank	1	40					100X -
F710347-BLK3	Blank	1	40					100X -
F710347-BS1	LCS	1	40	1705554	200			400X -
F710347-BSD1	LCS Dup	1	40	1705554	200			400X -
F710347-DUP1	Duplicate 1710398-17	1	40					100X -
F710347-MS1	Matrix Spike 1710398-13	1	40	1704483	125			100X -
F710347-MS2	Matrix Spike 1710398-17	1	40	1704422	25			100X -
F710347-MSD1	Matrix Spike Dup 1710398-13	1	40	1704483	125			100X -
F710347-MSD2	Matrix Spike Dup 1710398-17	1	40	1704422	25			100X -

Standard ID(s):

Description:

Expiration:

1705554

THg 1,000ng/mL Secondary Spiking Standard

18-Mar-18 00:00

100X = 500µL
400X = 125µL

1705410

1705611

1703182

1705961

PREPARATION BENCH SHEET

2600-3
10/17/17 BCL

F710347

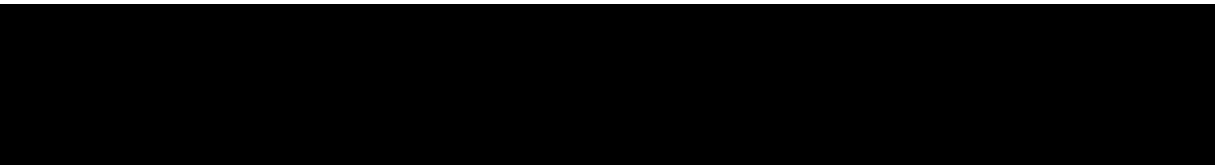
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments A	Analysis Comments B
1710398-13	HGS1718-6-14	1	40	-	-	-	No volume listed 100X -	100X -
1710398-14	HGS1718-6-15	1	40	-	-	-	No volume listed 100X -	100X -
1710398-15	HGS1718-6-16	1	40	-	-	-	No volume listed 100X -	100X -
1710398-16	HGS1718-6-17	1	40	-	-	-	No volume listed 100X -	100X -
1710398-17	HGS1718-6-18	1	40	-	-	-	No volume listed 100X -	100X -
1710398-18	HGS1718-7-1	1	40	-	-	-	No volume listed 100X -	100X -
1710398-19	HGS1718-7-2	1	40	-	-	-	No volume listed 100X -	100X -
1710398-20	HGS1718-7-3	1	40	-	-	-	No volume listed 100X -	100X -
1710398-21	HGS1718-7-4	1	40	-	-	-	No volume listed 100X -	100X -
1710398-22	HGS1718-7-5	1	40	-	-	-	No volume listed 100X -	100X -
1710398-23	HGS1718-7-6	1	40	-	-	-	No volume listed 100X -	100X -
1710398-24	HGS1718-7-7	1	40	-	-	-	No volume listed 100X -	100X -
1710398-25	HGS1718-7-8	1	40	-	-	-	No volume listed 100X -	100X -
1710398-26	HGS1718-7-9	1	40	-	-	-	No volume listed 100X -	100X -
1710398-27	HGS1718-7-10	1	40	-	-	-	No volume listed 100X -	100X -



Trap Digestions

Name: DM Date: 10/13/17 Batch ID: F710347
 Work Order(s): 1710398 Analysis: Total Hg Other _____
 Sample Matrix: FSTM KCl PHg Plug Other _____
 Prep: 70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)
 start time: 15:35, start temp (°C): 55.6 (raw) 55.1 (w/ CF)
 end time: 17:35, end temp (°C): 59.8 (raw) 59.3 (w/ CF) Timer? Yes No
 5% BrCl Oxidation (EFGS-031) start time: _____ (allow samples to sit for at least 4 hr before analysis)
 Other _____

Sample ID Number	Digest vol. (mL)	
F710347- BLK1	40	
F710347- BLK2	40	Spike ID: <u>170554</u>
F710347- BLK3	40	Spike Amount (µL): <u>200</u>
F710347- B51	40	Spike Witness: <u>BC 10/13/17</u>
F710347- B5D1	40	
1710398- 13A	40	BrCl ID: <u>1706079</u>
1710398- 13B	40	70/30: <u>1706064</u>
1710398- 14A	40	Other: <u>N/A</u>
1710398- 14B	40	
1710398- 15A	40	Thermometer: <u>140418012</u>
1710398- 15B	40	Dispensers: 02K27494 <input checked="" type="checkbox"/>
1710398- 16A	40	04N73497 <input type="checkbox"/>
1710398- 16B	40	Other <u>15406623</u>
1710398- 17A	40	
1710398- 17B	40	Pipette ID: <u>0207852</u>
1710398- 18A	40	Cal. Date: <u>10/9/17</u>
1710398- 18B	40	
1710398- 19A	40	Vials and Jars lot# <u>00028912 / 00020202</u>
1710398- 19B	40	Trap Material Lot#: <u>1704097</u>
1710398- 20A	40	Loader Mass Verified: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1710398- 20B	40	
1710398- 21A	40	Comments:
1710398- 21B	40	
1710398- 22A	40	
1710398- 22B	40	
1710398- 23A	40	
1710398- 23B	40	
1710398- 24A	40	
1710398- 24B	40	
1710398- 25A	40	
1710398- 25B	40	
1710398- 26A	40	
1710398- 26B	40	
1710398- 27A	40	
1710398- 27B	40	

TRAPS
 UNSPIKED
 Acid added 10/13/17 awf

Failing Data Report - 7J18017

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1710475-04	Hg_FSTM_TRAP_A	2078.0	20.00				ng/Trap						FAIL-OVER	PASS	E ✓

Beck 10/18/17
 Analyst Reviewed By Date

[Signature] 10/18/17
 Peer Reviewed By Date

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: <u>BC</u>	Sequence(s) #: <u>7J18016, 7J18017</u>
Reviewer: <u>R 10/18/17</u>	Dataset ID(s): <u>THg26003-171017-1</u>
Date: <u>10/18/2017</u>	WO (s) #: <u>Various</u>
Batch #(s): <u>F710347, F710363, F710292</u>	

• Select the correct preparation method.

Analyte	Prep Method	FSTM Trap	Matrix
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb-HF/HNO3/HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg0	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: BC **Reviewer Initials:** R 10/18/17

- | | | | |
|---|---|--|--|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?
Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Check 5% of transcription from Instrument print-out and Excel file
Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel?
50 ml / aliquot = Excel dilution value | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/ Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J18016, 7J18017
Reviewer: 0 <i>R 10/18/17</i>	Dataset ID(s): THg26003-171017-1
Date: 10/18/2017	WO (s) #: Various
Batch #(s): F710347, F710363, F710292	0

Analyst Initials BC Reviewer Initials R 10/18/17

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: off curve
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
 (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
 (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J18016, 7J18017
Reviewer: 0 <i>R 10/18/17</i>	Dataset ID(s): THg26003-171017-1
Date: 10/18/2017	WO (s) #: Various
Batch #(s): F710347, F710363, F710292	0

Analyst Initials BC **Reviewer Initials** R 10/18/17

- | | | | | |
|--|--|-------------------------------|---|-------------------------------------|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| Comments: _____ | | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> | |
| Comments: _____ | | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| Comments: _____ | | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 27. Is the B trap <5% A Traps | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input type="checkbox"/> |
| Comments: _____ | | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs

- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/11/17, 1/27/17 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 7/28/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 7/28/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1706398

August 18, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1706398

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August 18, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 16:24

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OV-04_17ET015_060917_EEL_01_WB	1706398-01	Tissue	09-Jun-17 08:55	13-Jun-17 10:00

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King**Reported:**
18-Aug-17 16:24

REVISED REPORT (8/18/17)

Report was revised per client request. The original report did not include the correct COC.

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 6/13/2017 10:00:00 AM. The samples were received intact, on-ice within two sealed coolers at -47.0 and -42.0 degrees Celsius.

The tissue samples were sent to Eurofins Calscience for % Lipids by NOAA 1993a after EFGS completed the homogenization. The final data can be found at the end of the report after the Mercury raw data.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

The samples were prepped in batch F706598 and analyzed in sequence 7G06014.

Sample 1706398-01 was used as the QC source for the Matrix Spike (MS) and Matrix Spike Duplicate (MSD) in batch F706598.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
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Reported:
18-Aug-17 16:24

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

EFGS Work Order: 1706398

Client: AMC Foster Wheeler

Date & Time Received: 6/13/17 10:00

Date Labeled: 6/13/17 Labeled By: [Signature]

Project: _____

Received By: LM

Label Verified By: [Signature]

of Coolers Received: 2 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>5325</u>	CF: <u>0.0 °C</u>	Date/time: <u>6/13/17 10:00</u>	By: <u>LM</u>
Cooler 1: <u>-47 °C</u>	w/ CF: <u>-47 °C</u>	Cooler 4: °C	w/ CF: °C
Cooler 2: <u>-42 °C</u>	w/ CF: <u>-42 °C</u>	Cooler 5: °C	w/ CF: °C
Cooler 3: °C	w/ CF: °C	Cooler 6: °C	w/ CF: °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	Y	
Preservation type:	Y	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	Y	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):



AMEC Foster Wheeler
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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 16:24

OV-04_17ET015_060917_EEL_01_WB
1706398-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	306	1.66	14.8	ng/g	400	F706598	26-Jun-17	7G06014	05-Jul-17	EPA 1631B	
---------	-----	------	------	------	-----	---------	-----------	---------	-----------	-----------	--

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 16:24

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7G06014 - F706598											
Cal Standard (7G06014-CAL1)					Prepared & Analyzed: 05-Jul-17						
Mercury	0.526	-		ng/L	0.50100		105				
Cal Standard (7G06014-CAL3)					Prepared & Analyzed: 05-Jul-17						
Mercury	4.836	-		ng/L	5.0100		96.5				
Cal Standard (7G06014-CAL4)					Prepared & Analyzed: 05-Jul-17						
Mercury	18.61	-		ng/L	20.040		92.9				
Cal Standard (7G06014-CAL5)					Prepared & Analyzed: 05-Jul-17						
Mercury	37.80	-		ng/L	40.080		94.3				
Cal Standard (7G06014-CAL6)					Prepared & Analyzed: 05-Jul-17						
Mercury	1.106	-		ng/L	1.0020		110				
Calibration Blank (7G06014-CCB1)					Prepared & Analyzed: 05-Jul-17						
Mercury	0.040	-		ng/L							
Calibration Blank (7G06014-CCB2)					Prepared & Analyzed: 05-Jul-17						
Mercury	0.069	-		ng/L							
Calibration Check (7G06014-CCV1)					Prepared & Analyzed: 05-Jul-17						
Mercury	4.962	-		ng/L	5.0000		99.2	77-123			
Calibration Check (7G06014-CCV2)					Prepared & Analyzed: 05-Jul-17						
Mercury	5.058	-		ng/L	5.0000		101	77-123			
Instrument Blank (7G06014-IBL1)					Prepared & Analyzed: 05-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	Reported: 18-Aug-17 16:24
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 7G06014 - F706598

Instrument Blank (7G06014-IBL2)												Prepared & Analyzed: 05-Jul-17
Mercury	ND	0.004	0.040	ng/L								U
Instrument Blank (7G06014-IBL3)												Prepared & Analyzed: 05-Jul-17
Mercury	ND	0.004	0.040	ng/L								U
Initial Cal Check (7G06014-ICV1)												Prepared & Analyzed: 05-Jul-17
Mercury	4.978	-		ng/L	5.0000		99.6	79-121				

Batch F706598 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F706598-BLK1)												Prepared: 26-Jun-17 Analyzed: 05-Jul-17
Mercury	0.121	0.090	0.800	ng/g								J
Blank (F706598-BLK2)												Prepared: 26-Jun-17 Analyzed: 05-Jul-17
Mercury	ND	0.090	0.800	ng/g								U
Blank (F706598-BLK3)												Prepared: 26-Jun-17 Analyzed: 05-Jul-17
Mercury	ND	0.090	0.800	ng/g								U
Blank (F706598-BLK4)												Prepared: 26-Jun-17 Analyzed: 05-Jul-17
Mercury	ND	0.082	0.732	ng/g								F-03, U
Blank (F706598-BLK5)												Prepared: 26-Jun-17 Analyzed: 05-Jul-17
Mercury	ND	0.083	0.741	ng/g								F-03, U
Blank (F706598-BLK6)												Prepared: 26-Jun-17 Analyzed: 05-Jul-17
Mercury	ND	0.087	0.777	ng/g								F-03, U

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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 16:24

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch F706598 - EFGS-011 Nitric/Sulfuric Hg Digestion

LCS (F706598-BS1)					Prepared: 26-Jun-17 Analyzed: 05-Jul-17						
Mercury	7.578	0.090	0.800	ng/g	8.0160		94.5	75-125			
LCS (F706598-BS2)					Prepared: 26-Jun-17 Analyzed: 05-Jul-17						
Mercury	348.5	3.47	31.0	ng/g	382.50		91.1	75-125			
LCS Dup (F706598-BSD1)					Prepared: 26-Jun-17 Analyzed: 05-Jul-17						
Mercury	7.290	0.090	0.800	ng/g	8.0160		90.9	75-125	3.87	24	
Duplicate (F706598-DUP1)					Source: 1706398-01 Prepared: 26-Jun-17 Analyzed: 05-Jul-17						
Mercury	291.7	1.62	14.5	ng/g		305.7			4.68	24	
Matrix Spike (F706598-MS1)					Source: 1706398-01 Prepared: 26-Jun-17 Analyzed: 05-Jul-17						
Mercury	644.7	1.67	14.9	ng/g	372.58	305.7	91.0	71-125			
Matrix Spike Dup (F706598-MSD1)					Source: 1706398-01 Prepared: 26-Jun-17 Analyzed: 05-Jul-17						
Mercury	651.6	1.68	15.0	ng/g	374.95	305.7	92.2	71-125	1.38	24	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

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Project Manager: Denise King

Reported:
18-Aug-17 16:24

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G06014

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *pc* 7/6/17 Analyzed: 7/5/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G06014-IBL1 ✓	QC	1			
7G06014-IBL2 ✓	QC	2			
7G06014-IBL3 ✓	QC	3			
7G06014-CAL1 ✓	QC	4	1702602 ✓		
7G06014-CAL2 ✓	QC	5	1702603 ✓		
7G06014-CAL3 ✓	QC	6	1702604 ✓		
7G06014-CAL4 ✓	QC	7	1702605 ✓		
7G06014-CAL5 ✓	QC	8	1702606 ✓		
7G06014-CAL6 ✓	QC	9	1702603 ✓		
7G06014-ICV1 ✓	QC	10	1703679 ✓		
F706598-BLK1 ✓	QC	11			
F706598-BLK2 ✓	QC	12			
F706598-BLK3 ✓	QC	13			
F706598-BLK4 ✓	QC	14			
F706598-BLK5 ✓	QC	15			
F706598-BLK6 ✓	QC	16			
F706598-BS1 ✓	QC	17			
F706598-BSD1 ✓	QC	18			
F706598-BS2 ✓	QC	19			
1706398-01 ✓	Hg-CVAFS-T-7030	20			
7G06014-CCV1 ✓	QC	21	1703679 ✓		
7G06014-CCB1 ✓	QC	22			
1706399-21 ✓	Hg-CVAFS-T-7030	23			
1706400-19 ✓	Hg-CVAFS-T-7030	24			
1706400-20 ✓	Hg-CVAFS-T-7030	25			
1706443-01 ✓	Hg-CVAFS-T-7030	26			Scan all data for level IV report
F706598-DUP1 ✓	QC	27			
F706598-MS1 ✓	QC	28			
F706598-MSD1 ✓	QC	29			
7G06014-CCV2 ✓	QC	30	1703679 ✓		
7G06014-CCB2 ✓	QC	31			

pc 7/6/17
 Samples Loaded By _____ Date _____

pc 7/6/17
 Data Processed By _____ Date _____

10-2008
 7/5/17
pc

Due Date: 7/12/2017

PREPARATION BENCH SHEET

F706598

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706598-BLK1	Blank	0.25	20					
F706598-BLK2	Blank	0.25	20					
F706598-BLK3	Blank	0.25	20					
F706598-BLK4	Pre homogenization blank 1706400	0.2731	20					
F706598-BLK5	Post homogenization blank 1706400	0.2699	20					
F706598-BLK6	Rinse Blank 1706443	0.2573	20					
F706598-BS1	LCS	0.25	20	1702555	20			
F706598-BS2	DORM4	0.1292	20	1703305	129			
F706598-BSD1	LCS Dup	0.25	20	1702555	20			
F706598-DUP1	Duplicate [1706398-01]	0.2765	20					
F706598-MS1	Matrix Spike [1706398-01]	0.2684	20	1701763	100			
F706598-MSD1	Matrix Spike Dup [1706398-01]	0.2667	20	1701763	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703305	DORM-4	29-May-20 00:00	1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703377	THg Dilute 1% BrCl	
			1703873	3% SnCl ₂ THg reductant	19-Dec-17 00:00
			1703885	70/30 Digestion Acid	25-Dec-17 00:00
			1703911	5% BrCl	18-Dec-17 00:00

PREPARATION BENCH SHEET

F706598

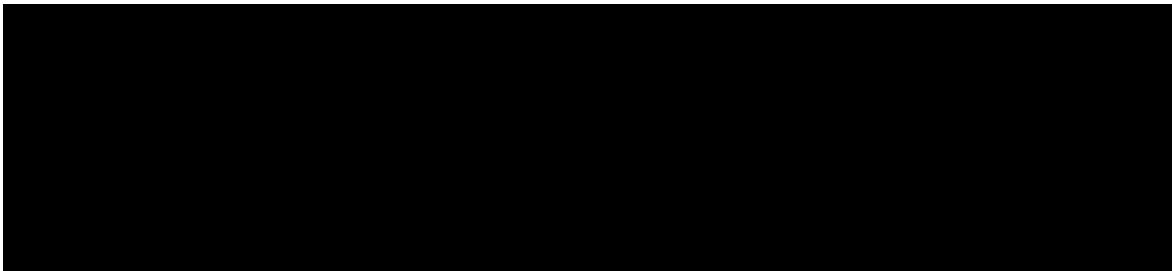
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706398-01	OV-04_17ET015_060917_EEL_01_WB	0.2698	20	QC	-	-	MS/MSD	
1706399-21	HORSESHOE CRAB_060717_EEL_BAIT	0.262	20	-	-	-		
1706400-19	OB-05_17ET141_060617_EEL_19_WB	0.2855	20	-	-	-		
1706400-20	OB-05_17ET141_060617_EEL_20_WB	0.2924	20	-	-	-		
1706443-01	OL-2611-01	0.2559	20	-	-	-	Scan all data for level IV report	



2600.2
BC 7/5/17

PREPARATION BENCH SHEET

F706598

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706598-BLK1	Blank	0.25	20					20X -
F706598-BLK2	Blank	0.25	20					20X -
F706598-BLK3	Blank	0.25	20					20X -
F706598-BLK4	Pre homogenization blank 1706400	0.2731	20					20X -
F706598-BLK5	Post homogenization blank 1706400	0.2699	20					20X -
F706598-BLK6	Rinse Blank 1706443	0.2573	20					20X -
F706598-BS1	LCS	0.25	20	1702555	20			20X -
F706598-BS2	DORM4	0.1292	20	1703305	129			400X -
F706598-BSD1	LCS Dup	0.25	20	1702555	20			20X -
F706598-DUP1	Duplicate [1706398-01]	0.2765	20					400X -
F706598-MS1	Matrix Spike [1706398-01]	0.2684	20	1701763	100			400X -
F706598-MSD1	Matrix Spike Dup [1706398-01]	0.2667	20	1701763	100			400X -

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703885	70/30 Digestion Acid	25-Dec-17 00:00
1703305	DORM-4	29-May-20 00:00	1703911	5% BrCl	18-Dec-17 00:00

1703873
1703370
1703377
1703182

Due Date: 7/12/2017

2600-2
BC 7/5/17

PREPARATION BENCH SHEET

F706598

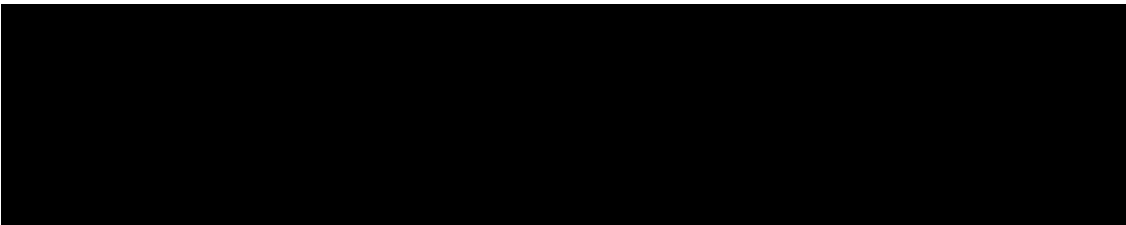
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706398-01	OV-04_17ET015_060917_EEL_01_WB	0.2698	20	QC	-	-	MS/MSD	400X ✓
1706399-21	HORSESHOE CRAB_060717_EEL_BAIT	0.262	20	-	-	-		400X ✓
1706400-19	OB-05_17ET141_060617_EEL_19_WB	0.2855	20	-	-	-		400X ✓
1706400-20	OB-05_17ET141_060617_EEL_20_WB	0.2924	20	-	-	-		400X ✓
1706443-01	OL-2611-01	0.2559	20	-	-	-	Scan all data for level IV report	100X ✓



Technician: AMB Batch#: F706598 Date: 6/28/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: 140418015 Calibrated? Yes No
 *Time in: 1825 Actual Temp. (raw): 75.4 °C w/ CF: 74.9 °C 75.0
 Time out: 2025 Actual Temp. (raw): 76.6 °C w/ CF: 75.7 °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1703911) Spike vol.: 100 µL (LIMS ID: 1701763)
 Spike Witness: AMB 6/28/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 6-27-17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1703885 Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 00066804 Boiling Chip lot # 1702551 *Hotblock Position: NZ

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F706598-BLK1	0.2838	23			BS2 = DORMA
2	F706598-BLK2	0.2953	24			
3	F706598-BLK3	0.2633	25			1605470 ^{AMB} 6-28-17 1703305
4	F706598-BLK4	0.2731	26			Comments
5	F706598-BLK5	0.2699	27			BLK4+5:
6	F706598-BLK6	0.2573	28			PRE+POST HOMOGEN.
7	F706598-BS1	0.2609	29			BLANKS 1706400.
8	F706598-BSD1	0.2637	30			BLK6: Filter blank for 1706443.
9	F706598-BS2	0.1292	31			DUP1, MS1, MSD1:
10	1706398-01	0.2698	32			1706398-01
11	F706598-MS1	0.2684	33			BS1/BSD1 spiked w/ 20µL of 100 ng/mL LIMS: 1702555
12	F706598-MSD1	0.2667	34			
13	F706598-DUP1	0.2705	35			Digested ~2.5g sample in 20mL vials due to low volume on sample 1706398-01.
14	1706399-21	0.2620	36			
15	1706400-19	0.2855	37			AMB 6-28-17
16	1706400-20	0.2924	38			
17	1706443-01	0.2559	39			AMB 6-28-17
18			40			
19			41			
20			42			
21			43			
22			44			

Failing Data Report - 7G06014

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Beckins 7/6/17
Analyst Reviewed By Date

PLB 7/6/17
Peer Reviewed By Date



Frontier Global Sciences

THg26002-170705-1

Analysis Datasheet for Total Mercury

Date of Analysis: July 05, 2017

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7G06014, 7G06015, 7G06016

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	148.56 units	297.12	130.54 units	261.08	105.1 %Rec
SEQ-CAL2	0						
SEQ-CAL3	1	5.00 ng/L	1218.97 units	243.79	1200.95 units	240.19	96.7 %Rec
SEQ-CAL4	1	20.00 ng/L	4640.70 units	232.04	4622.68 units	231.13	93.1 %Rec
SEQ-CAL5	1	40.00 ng/L	9404.91 units	235.12	9386.89 units	234.67	94.5 %Rec
SEQ-CAL6	1	1.00 ng/L	292.70 units	292.70	274.68 units	274.68	110.6 %Rec
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
248.35	+/- 18.74	7.5% RSD	260.15

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	18.02 units	±1.56	0.07 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.987 ng/L	±0.457
BLK	2	3	15.677 ng/L	±13.543
BLK	3	3	2.713 ng/L	±1.484
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hg2600-2	BC	CAL	SEQ-IBL1	1	7/5/2017 8:54:35	80283-1.RAW	8:54:35 AM	19.80			1.8	0.007	0.007	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	7/5/2017 8:58:43	80284-1.RAW	8:58:43 AM	17.35			-0.7	-0.003	-0.003	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	7/5/2017 9:02:52	80285-1.RAW	9:02:52 AM	16.91			-1.1	-0.004	-0.004	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	7/5/2017 9:07:00	80286-1.RAW	9:07:00 AM	148.56			130.5	0.526	0.526	ng/L	
Hg2600-2	BC	SAM	*SEQ-CAL2	1	7/5/2017 9:11:08	80287-1.RAW	9:11:08 AM	423.90		X	405.9	1.634	1.634	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	7/5/2017 9:15:17	80288-1.RAW	9:15:17 AM	1218.97			1201.0	4.836	4.836	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	7/5/2017 9:19:25	80289-1.RAW	9:19:25 AM	4640.70			4622.7	18.613	18.613	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	7/5/2017 9:23:34	80290-1.RAW	9:23:34 AM	9404.91			9386.9	37.797	37.797	ng/L	
Hg2600-2	BC	SAM	WS		7/5/2017 9:31:45	80292-1.RAW	9:31:45 AM	1399.25		X	1381.2	5.562	0.000	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL6	1	7/5/2017 9:35:54	80293-1.RAW	9:35:54 AM	292.70			274.7	1.106	1.106	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	7/5/2017 9:40:02	80291-2.RAW	9:40:02 AM	1254.27			1236.3	4.978	4.978	ng/L	
Hg2600-2	BC	BLK	F706598-BLK1	20	7/5/2017 9:44:11	80294-1.RAW	9:44:11 AM	36.82	1		18.8	0.076	1.514	ng/L	
Hg2600-2	BC	BLK	F706598-BLK2	20	7/5/2017 9:48:19	80295-1.RAW	9:48:19 AM	26.96	1		8.9	0.036	0.720	ng/L	
Hg2600-2	BC	BLK	F706598-BLK3	20	7/5/2017 9:52:27	80296-1.RAW	9:52:27 AM	27.03	1		9.0	0.036	0.726	ng/L	
Hg2600-2	BC	SAM	*F706598-BLK4	20	7/5/2017 9:56:36	80297-1.RAW	9:56:36 AM	24.53	1		6.5	-0.023	-0.462	ng/L	
Hg2600-2	BC	SAM	*F706598-BLK5	20	7/5/2017 10:00:44	80298-1.RAW	10:00:44 AM	23.07	1		5.1	-0.029	-0.580	ng/L	
Hg2600-2	BC	SAM	*F706598-BLK6	20	7/5/2017 10:04:53	80299-1.RAW	10:04:53 AM	24.32	1		6.3	-0.024	-0.479	ng/L	
Hg2600-2	BC	SAM	F706598-BS1	20	7/5/2017 10:09:01	80300-1.RAW	10:09:01 AM	1206.58	1		1188.6	4.736	94.730	ng/L	
Hg2600-2	BC	SAM	F706598-BSD1	20	7/5/2017 10:13:10	80301-1.RAW	10:13:10 AM	1161.89	1		1143.9	4.557	91.131	ng/L	
Hg2600-2	BC	SAM	F706598-BS2	400	7/5/2017 10:17:18	80302-1.RAW	10:17:18 AM	1416.31	1		1398.3	5.628	2251.130	ng/L	
Hg2600-2	BC	SAM	1706398-01	400	7/5/2017 10:21:26	80303-1.RAW	10:21:26 AM	2578.96	1		2560.9	10.309	4123.720	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	7/5/2017 10:25:35	80304-1.RAW	10:25:35 AM	1250.33			1232.3	4.962	4.962	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	7/5/2017 10:29:43	80305-1.RAW	10:29:43 AM	27.91			9.9	0.040	0.040	ng/L	
Hg2600-2	BC	SAM	1706399-01	400	7/5/2017 10:33:52	80306-1.RAW	10:33:52 AM	505.09	1		487.1	1.959	783.499	ng/L	
Hg2600-2	BC	SAM	1706400-19	400	7/5/2017 10:38:00	80307-1.RAW	10:38:00 AM	2704.06	1		2686.0	10.813	4325.209	ng/L	
Hg2600-2	BC	SAM	1706400-20	400	7/5/2017 10:42:08	80308-1.RAW	10:42:08 AM	2021.83	1		2003.8	8.066	3226.394	ng/L	
Hg2600-2	BC	SAM	1706443-01	100	7/5/2017 10:46:17	80309-1.RAW	10:46:17 AM	1626.48	1		1608.5	6.467	646.669	ng/L	
Hg2600-2	BC	SAM	F706598-DUP1	400	7/5/2017 10:50:25	80310-1.RAW	10:50:25 AM	2522.53	1		2504.5	10.082	4032.833	ng/L	
Hg2600-2	BC	SAM	F706598-MS1	400	7/5/2017 10:54:34	80311-1.RAW	10:54:34 AM	5390.11	1		5372.1	21.629	8651.420	ng/L	
Hg2600-2	BC	SAM	F706598-MSD1	400	7/5/2017 10:58:42	80312-1.RAW	10:58:42 AM	5413.33	1		5395.3	21.722	8688.819	ng/L	
Hg2600-2	BC	BLK	F707257-BLK1	100	7/5/2017 11:06:42	80313-1.RAW	11:06:42 AM	95.67	1		77.7	0.313	31.266	ng/L	
Hg2600-2	BC	BLK	F707257-BLK2	100	7/5/2017 11:10:50	80314-1.RAW	11:10:50 AM	40.24	2		22.2	0.089	8.947	ng/L	
Hg2600-2	BC	BLK	F707257-BLK3	100	7/5/2017 11:14:59	80315-1.RAW	11:14:59 AM	34.95	2		16.9	0.068	6.817	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	7/5/2017 11:19:07	80316-1.RAW	11:19:07 AM	1274.13			1256.1	5.058	5.058	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	7/5/2017 11:23:16	80317-1.RAW	11:23:16 AM	35.26			17.2	0.069	0.069	ng/L	
Hg2600-2	BC	SAM	F707257-BS1	400	7/5/2017 11:27:24	80318-1.RAW	11:27:24 AM	1182.74	2		1164.7	4.651	1860.247	ng/L	
Hg2600-2	BC	SAM	WS		7/5/2017 11:34:14	80320-1.RAW	11:34:14 AM	121.88		X	103.9	0.418	0.000	ng/L	
Hg2600-2	BC	SAM	F707257-BSD1	400	7/5/2017 11:38:22	80319-2.RAW	11:38:22 AM	1152.69	2		1134.7	4.530	1811.848	ng/L	
Hg2600-2	BC	SAM	1706889-01	2500	7/5/2017 11:42:31	80321-1.RAW	11:42:31 AM	5372.26	2		5354.2	21.553	53882.180	ng/L	
Hg2600-2	BC	SAM	1706889-02	2500	7/5/2017 11:46:39	80322-1.RAW	11:46:39 AM	5290.45	2		5272.4	21.223	53058.648	ng/L	
Hg2600-2	BC	SAM	1707031-01	2500	7/5/2017 11:50:49	80323-1.RAW	11:50:49 AM	1322.31	2		1304.3	5.246	13113.812	ng/L	
Hg2600-2	BC	SAM	1707031-02	2500	7/5/2017 11:54:58	80324-1.RAW	11:54:58 AM	1937.56	2		1919.5	7.723	19307.057	ng/L	
Hg2600-2	BC	SAM	1707032-01	2500	7/5/2017 11:59:07	80325-1.RAW	11:59:07 AM	1254.57	2		1236.6	4.973	12431.915	ng/L	
Hg2600-2	BC	SAM	1707032-02	2500	7/5/2017 12:03:16	80326-1.RAW	12:03:16 PM	1373.91	2		1355.9	5.453	13633.238	ng/L	
Hg2600-2	BC	SAM	1707033-01	2500	7/5/2017 12:07:24	80327-1.RAW	12:07:24 PM	994.68	2		976.7	3.926	9815.762	ng/L	
Hg2600-2	BC	SAM	1707033-02	2500	7/5/2017 12:11:33	80328-1.RAW	12:11:33 PM	916.77	2		898.8	3.613	9031.489	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	7/5/2017 12:15:41	80329-1.RAW	12:15:41 PM	1261.88			1243.9	5.008	5.008	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	7/5/2017 12:19:50	80330-1.RAW	12:19:50 PM	37.26			19.2	0.077	0.077	ng/L	
Hg2600-2	BC	SAM	1706889-01B	100	7/5/2017 12:23:58	80331-1.RAW	12:23:58 PM	64.34	2		46.3	0.030	2.974	ng/L	
Hg2600-2	BC	SAM	1706889-02B	100	7/5/2017 12:28:06	80332-1.RAW	12:28:06 PM	91.53	2		73.5	0.139	13.922	ng/L	
Hg2600-2	BC	SAM	1707031-01B	100	7/5/2017 12:32:15	80333-1.RAW	12:32:15 PM	36.55	2		18.5	-0.082	-8.216	ng/L	
Hg2600-2	BC	SAM	1707031-02B	100	7/5/2017 12:36:23	80334-1.RAW	12:36:23 PM	49.21	2		31.2	-0.031	-3.118	ng/L	
Hg2600-2	BC	SAM	1707032-01B	100	7/5/2017 12:40:32	80335-1.RAW	12:40:32 PM	61.27	2		43.3	0.017	1.738	ng/L	
Hg2600-2	BC	SAM	1707032-02B	100	7/5/2017 12:44:40	80336-1.RAW	12:44:40 PM	93.10	2		75.1	0.146	14.555	ng/L	
Hg2600-2	BC	SAM	1707033-01B	100	7/5/2017 12:48:48	80337-1.RAW	12:48:48 PM	40.46	2		22.4	-0.066	-6.641	ng/L	
Hg2600-2	BC	SAM	1707033-02B	100	7/5/2017 12:52:57	80338-1.RAW	12:52:57 PM	50.13	2		32.1	-0.027	-2.747	ng/L	
Hg2600-2	BC	SAM	1706889-01C	2500	7/5/2017 12:57:05	80339-1.RAW	12:57:05 PM	5322.01	2		5304.0	21.351	53376.344	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	SAM	1706889-02C	2500	7/5/2017 13:01:14	80340-1.RAW	1:01:14 PM	5084.02	2		5066.0	20.392	50980.644	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	7/5/2017 13:05:23	80341-1.RAW	1:05:23 PM	1313.78			1295.8	5.217	5.217	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	7/5/2017 13:09:33	80342-1.RAW	1:09:33 PM	50.40			32.4	0.130	0.130	ng/L	
Hg2600-2	BC	SAM	1707032-01C	2500	7/5/2017 13:13:41	80343-1.RAW	1:13:41 PM	2792.08	2		2774.1	11.164	27909.087	ng/L	
Hg2600-2	BC	SAM	1707032-02C	2500	7/5/2017 13:17:49	80344-1.RAW	1:17:49 PM	2817.75	2		2799.7	11.267	28167.491	ng/L	
Hg2600-2	BC	SAM	1707033-01C	2500	7/5/2017 13:21:58	80345-1.RAW	1:21:58 PM	2731.70	2		2713.7	10.921	27301.279	ng/L	
Hg2600-2	BC	SAM	1707033-02C	2500	7/5/2017 13:26:06	80346-1.RAW	1:26:06 PM	2736.70	2		2718.7	10.941	27351.611	ng/L	
Hg2600-2	BC	SAM	F707257-DUP1	2500	7/5/2017 13:30:15	80347-1.RAW	1:30:15 PM	1366.77	2		1348.8	5.425	13561.364	ng/L	
Hg2600-2	BC	SAM	F707257-MS1	2500	7/5/2017 13:34:23	80348-1.RAW	1:34:23 PM	6175.25	2		6157.2	24.786	61965.388	ng/L	
Hg2600-2	BC	SAM	F707257-MSD1	2500	7/5/2017 13:38:32	80349-1.RAW	1:38:32 PM	6485.45	2		6467.4	26.035	65087.982	ng/L	
Hg2600-2	BC	SAM	EFGS07654 tv 200ng	400	7/5/2017 13:48:37	80350-1.RAW	1:48:37 PM	3187.73		X	3169.7	12.763	5105.205	ng/L	
Hg2600-2	BC	SAM	EFGS10049 tv 200ng	400	7/5/2017 13:52:46	80351-1.RAW	1:52:46 PM	3172.51		X	3154.5	12.702	5080.691	ng/L	
Hg2600-2	BC	SAM	EFGS07879 tv 200ng	400	7/5/2017 13:56:54	80352-1.RAW	1:56:54 PM	3085.97		X	3068.0	12.353	4941.308	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	7/5/2017 14:01:03	80353-1.RAW	2:01:03 PM	1345.22			1327.2	5.344	5.344	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	7/5/2017 14:05:11	80354-1.RAW	2:05:11 PM	53.60			35.6	0.143	0.143	ng/L	
Hg2600-2	BC	SAM	EFGS07922 tv 200ng	400	7/5/2017 14:09:20	80355-1.RAW	2:09:20 PM	2976.22		X	2958.2	11.911	4764.542	ng/L	
Hg2600-2	BC	BLK	F706635-BLK1	20	7/5/2017 14:13:28	80356-1.RAW	2:13:28 PM	71.80		3 X	53.8	0.217	4.331	ng/L	
Hg2600-2	BC	BLK	F706635-BLK2	20	7/5/2017 14:17:36	80357-1.RAW	2:17:36 PM	47.73		3 X	29.7	0.120	2.393	ng/L	
Hg2600-2	BC	BLK	F706635-BLK3	20	7/5/2017 14:21:45	80358-1.RAW	2:21:45 PM	35.60		3 X	17.6	0.071	1.416	ng/L	
Hg2600-2	BC	SAM	F706635-BS1	20	7/5/2017 14:25:53	80359-1.RAW	2:25:53 PM	1222.48		3 X	1204.5	4.850	96.996	ng/L	
Hg2600-2	BC	SAM	F706635-BSD1	20	7/5/2017 14:30:02	80360-1.RAW	2:30:02 PM	1279.08		3 X	1261.1	5.078	101.555	ng/L	
Hg2600-2	BC	SAM	1706489-01	20	7/5/2017 14:34:10	80361-1.RAW	2:34:10 PM	108.85		3 X	90.8	0.366	7.315	ng/L	
Hg2600-2	BC	SAM	1706489-02	20	7/5/2017 14:38:18	80362-1.RAW	2:38:18 PM	112.85		3 X	94.8	0.382	7.637	ng/L	
Hg2600-2	BC	SAM	1706489-03	20	7/5/2017 14:42:27	80363-1.RAW	2:42:27 PM	116.32		3 X	98.3	0.396	7.916	ng/L	
Hg2600-2	BC	SAM	1706489-04	20	7/5/2017 14:46:35	80364-1.RAW	2:46:35 PM	3938.26		3 X	3920.2	15.785	315.701	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	7/5/2017 14:50:44	80365-1.RAW	2:50:44 PM	1294.32			1276.3	5.139	5.139	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	7/5/2017 14:54:52	80366-1.RAW	2:54:52 PM	90.86			72.8	0.293	0.293	ng/L	
Hg2600-2	BC	SAM	1706489-05	20	7/5/2017 14:59:02	80367-1.RAW	2:59:02 PM	379.86		3 X	361.8	1.457	29.139	ng/L	
Hg2600-2	BC	SAM	1706489-13	20	7/5/2017 15:03:10	80368-1.RAW	3:03:10 PM	654.13		3 X	636.1	2.561	51.227	ng/L	
Hg2600-2	BC	SAM	1706489-14	20	7/5/2017 15:07:18	80369-1.RAW	3:07:18 PM	7543.72		3 X	7525.7	30.303	606.053	ng/L	
Hg2600-2	BC	SAM	1706489-15	20	7/5/2017 15:11:27	80370-1.RAW	3:11:27 PM	230.61		3 X	212.6	0.856	17.120	ng/L	
Hg2600-2	BC	SAM	1706489-19	20	7/5/2017 15:15:35	80371-1.RAW	3:15:35 PM	693.39		3 X	675.4	2.719	54.388	ng/L	
Hg2600-2	BC	SAM	F706635-DUP1	20	7/5/2017 15:19:44	80372-1.RAW	3:19:44 PM	122.85		3 X	104.8	0.422	8.442	ng/L	
Hg2600-2	BC	SAM	F706635-MS1	400	7/5/2017 15:23:52	80373-1.RAW	3:23:52 PM	3272.91		3 X	3254.9	13.106	5242.398	ng/L	
Hg2600-2	BC	SAM	F706635-MSD1	400	7/5/2017 15:28:00	80374-1.RAW	3:28:00 PM	3209.34		3 X	3191.3	12.850	5140.010	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	7/5/2017 15:32:09	80375-1.RAW	3:32:09 PM	1348.95			1330.9	5.359	5.359	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	7/5/2017 15:36:17	80376-1.RAW	3:36:17 PM	60.34			42.3	0.170	0.170	ng/L	

TotalMercury
 EPA1631
 Operati 8C
 Worksh THg260(CalibFa 248.35
 Method ##### R: 1
 Descrip THg26002-170705-1
 BlankS: 18.016
 Calib Eqn: Conc = (Area-18.01
 Status: QC Warnings:9/QC E
 R²: 0.9999
 Run Date: 7/5/2017
 Run Time: 13:44:28
 Blank SD: 1.556739291
 Blank RSD%: 8.640954294
 CF SD: 18.74652292
 CF RSD%: 7.548294776

SampleID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (err)	Flags	RunCount	Comment
Clean				0.00	10.27					80278-1.RAW	8:35:10	2550.14	Clean	OK	1	
clean				0.00	0.03					80279-1.RAW	8:38:01	6.95	Clean	OK	1	
ws				18.02	0.01					80280-1.RAW	8:42:09	20.83	Sample	OK	1	
ws				18.02	0.00					80281-1.RAW	8:46:18	16.51	Sample	OK	1	
ws				18.02	0.01					80282-1.RAW	8:50:26	21.25	Sample	OK	1	
SEQ-IBL1	A1		1	0.00	0.08					80283-1.RAW	8:54:35	19.80	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.07					80284-1.RAW	8:58:43	17.35	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.07					80285-1.RAW	9:02:52	16.91	Sample	OK	1	
SEQ-CAL1	A4		1	18.02	0.53			105.13		80286-1.RAW	9:07:00	148.56	Sample	OK	1	
*SEQ-CAL2	A5		1	18.02	1.63			147.81		80287-1.RAW	9:11:08	423.90	Sample	OK	1	
SEQ-CAL3	A6		1	18.02	4.84			96.71		80288-1.RAW	9:15:17	1218.97	Sample	OK	1	
SEQ-CAL4	A7		1	18.02	18.61			93.07		80289-1.RAW	9:19:25	4640.70	Sample	OK	1	
SEQ-CAL5	A8		1	18.02	37.80			94.49		80290-1.RAW	9:23:34	9404.91	Sample	OK	1	
WS				18.02	5.56					80292-1.RAW	9:31:45	1399.25	Sample	OK	1	
SEQ-CAL6	C1		1	18.02	1.11			110.60		80293-1.RAW	9:35:54	292.70	Sample	OK	1	
SEQ-ICV1	A9		1	18.02	4.98			99.56		80291-2.RAW	9:40:02	1254.27	Sample	OK	1	
F706598-BLK1	A10		20	18.02	1.51					80294-1.RAW	9:44:11	36.82	Sample	OK	1	
F706598-BLK2	A11		20	18.02	0.72					80295-1.RAW	9:48:19	26.96	Sample	OK	1	
F706598-BLK3	A12		20	18.02	0.73					80296-1.RAW	9:52:27	27.03	Sample	OK	1	
*F706598-BLK4	A13		20	18.02	0.52					80297-1.RAW	9:56:36	24.53	Sample	OK	1	
*F706598-BLK5	A14		20	18.02	0.41					80298-1.RAW	10:00:44	23.07	Sample	OK	1	
*F706598-BLK6	A15		20	18.02	0.51					80299-1.RAW	10:04:53	24.32	Sample	OK	1	
F706598-BS1	A16		20	18.02	95.71					80300-1.RAW	10:09:01	1206.58	Sample	OK	1	
F706598-BSD1	A17		20	18.02	92.12					80301-1.RAW	10:13:10	1161.89	Sample	OK	1	
F706598-BS2	A18		400	18.02	2252.10					80302-1.RAW	10:17:18	1416.31	Sample	OK	1	
1706398-01	A19		400	18.02	4124.67					80303-1.RAW	10:21:26	2578.96	Sample	OK	1	
SEQ-CCV1	A20		1	18.02	4.96			99.24		80304-1.RAW	10:25:35	1250.33	Sample	OK	1	
SEQ-CCB1	A21		1	18.02	0.04			0.00		80305-1.RAW	10:29:43	27.91	Sample	OK	1	
1706399-21	B1		400	18.02	784.48					80306-1.RAW	10:33:52	505.09	Sample	OK	1	
1706400-19	B2		400	18.02	4326.15					80307-1.RAW	10:38:00	2704.06	Sample	OK	1	
1706400-20	B3		400	18.02	3227.34					80308-1.RAW	10:42:08	2021.83	Sample	OK	1	
1706443-01	B4		100	18.02	647.65					80309-1.RAW	10:46:17	1626.48	Sample	OK	1	
F706598-DUP1	B5		400	18.02	4033.77					80310-1.RAW	10:50:25	2522.53	Sample	OK	1	
F706598-MS1	B6		400	18.02	8652.30			214.44		80311-1.RAW	10:54:34	5390.11	Sample	OK	1	
F706598-MSD1	B7		400	18.02	8689.71					80312-1.RAW	10:58:42	5413.33	Sample	OK	1	
F707257-BLK1	B8		100	18.02	31.27					80313-1.RAW	11:06:42	95.67	Sample	OK	1	
F707257-BLK2	B9		100	18.02	8.95					80314-1.RAW	11:10:50	40.24	Sample	OK	1	
F707257-BLK3	B10		100	18.02	6.82					80315-1.RAW	11:14:59	34.95	Sample	OK	1	
SEQ-CCV2	B11		1	18.02	5.06			101.15		80316-1.RAW	11:19:07	1274.13	Sample	OK	1	
SEQ-CCB2	B12		1	18.02	0.07			0.00		80317-1.RAW	11:23:16	35.26	Sample	OK	1	
F707257-BS1	B13		400	18.02	1875.91					80318-1.RAW	11:27:24	1182.74	Sample	OK	1	
WS				18.02	0.42					80320-1.RAW	11:34:14	121.88	Sample	OK	1	
F707257-BSD1	B14		400	18.02	1827.51					80319-2.RAW	11:38:22	1152.69	Sample	OK	1	started to sample wrong cup
1706889-01	B15		2500	18.02	53897.24					80321-1.RAW	11:42:31	5372.26	Sample	OK	1	
1706889-02	B16		2500	18.02	53073.68					80322-1.RAW	11:46:39	5290.45	Sample	OK	1	
1707031-01	B17		2500	18.02	13129.39					80323-1.RAW	11:50:49	1322.31	Sample	OK	1	
1707031-02	B18		2500	18.02	19322.51					80324-1.RAW	11:54:58	1937.55	Sample	OK	1	
1707032-01	B19		2500	18.02	12447.51					80325-1.RAW	11:59:07	1254.57	Sample	OK	1	
1707032-02	B20		2500	18.02	13648.74					80326-1.RAW	12:03:16	1373.91	Sample	OK	1	
1707033-01	B21		2500	18.02	9831.33					80327-1.RAW	12:07:24	994.68	Sample	OK	1	
1707033-02	C1		2500	18.02	9047.10					80328-1.RAW	12:11:33	916.77	Sample	OK	1	
SEQ-CCV3	C2		1	18.02	5.01			100.17		80329-1.RAW	12:15:41	1261.88	Sample	OK	1	
SEQ-CCB3	C3		1	18.02	0.08			0.00		80330-1.RAW	12:19:50	37.26	Sample	OK	1	
1706889-01B	C4		100	18.02	18.65					80331-1.RAW	12:23:58	64.34	Sample	OK	1	

1706889-02B	C5	100	18.02	29.60		80332-1.RAW	12:28:06	91.53	Sample	OK	1
1707031-01B	C6	100	18.02	7.46		80333-1.RAW	12:32:15	36.55	Sample	OK	1
1707031-02B	C7	100	18.02	12.56		80334-1.RAW	12:36:23	49.21	Sample	OK	1
1707032-01B	C8	100	18.02	17.42		80335-1.RAW	12:40:32	61.27	Sample	OK	1
1707032-02B	C9	100	18.02	30.23		80336-1.RAW	12:44:40	93.10	Sample	OK	1
1707033-01B	C10	100	18.02	9.04		80337-1.RAW	12:48:48	40.46	Sample	OK	1
1707033-02B	C11	100	18.02	12.93		80338-1.RAW	12:52:57	50.13	Sample	OK	1
1706889-01C	C12	2500	18.02	53391.37		80339-1.RAW	12:57:05	5322.01	Sample	OK	1
1706889-02C	C13	2500	18.02	50995.69		80340-1.RAW	13:01:14	5084.02	Sample	OK	1
SEQ-CCV4	C14	1	18.02	5.22	104.35	80341-1.RAW	13:05:23	1313.78	Sample	OK	1
SEQ-CCB4	C15	1	18.02	0.13	0.00	80342-1.RAW	13:09:33	50.40	Sample	OK	1
1707032-01C	C16	2500	18.02	27924.44		80343-1.RAW	13:13:41	2792.08	Sample	OK	1
1707032-02C	C17	2500	18.02	28182.82		80344-1.RAW	13:17:49	2817.75	Sample	OK	1
1707033-01C	C18	2500	18.02	27316.66		80345-1.RAW	13:21:58	2731.70	Sample	OK	1
1707033-02C	C19	2500	18.02	27367.01		80346-1.RAW	13:26:06	2736.70	Sample	OK	1
F707257-DUP1	C20	2500	18.02	13576.88		80347-1.RAW	13:30:15	1366.77	Sample	OK	1
F707257-MS1	C21	2500	18.02	61980.35	456.48	80348-1.RAW	13:34:23	6175.25	Sample	OK	1
F707257-MSD1	A1	2500	18.02	65102.90		80349-1.RAW	13:38:32	6485.45	Sample	OK	1
EFGS07654 tv 2(A2	A2	400	18.02	5105.14		80350-1.RAW	13:48:37	3187.73	Sample	OK	1
EFGS10049 tv 2(A3	A3	400	18.02	5080.63		80351-1.RAW	13:52:46	3172.51	Sample	OK	1
EFGS07879 tv 2(A4	A4	400	18.02	4941.26		80352-1.RAW	13:56:54	3085.97	Sample	OK	1
SEQ-CCV5	A5	1	18.02	5.34	106.88	80353-1.RAW	14:01:03	1345.22	Sample	OK	1
SEQ-CCB5	A6	1	18.02	0.14	0.00	80354-1.RAW	14:05:11	53.60	Sample	OK	1
EFGS07922 tv 2(A7	A7	400	18.02	4764.49		80355-1.RAW	14:09:20	2976.22	Sample	OK	1
F706635-BLK1	A8	20	18.02	4.33		80356-1.RAW	14:13:28	71.80	Sample	OK	1
F706635-BLK2	A9	20	18.02	2.39		80357-1.RAW	14:17:36	47.73	Sample	OK	1
F706635-BLK3	A10	20	18.02	1.42		80358-1.RAW	14:21:45	35.60	Sample	OK	1
F706635-BS1	A11	20	18.02	97.00		80359-1.RAW	14:25:53	1222.48	Sample	OK	1
F706635-BSD1	A12	20	18.02	101.55		80360-1.RAW	14:30:02	1279.08	Sample	OK	1
1706489-01	A13	20	18.02	7.31		80361-1.RAW	14:34:10	108.85	Sample	OK	1
1706489-02	A14	20	18.02	7.64		80362-1.RAW	14:38:18	112.85	Sample	OK	1
1706489-03	A15	20	18.02	7.92		80363-1.RAW	14:42:27	116.32	Sample	OK	1
1706489-04	A16	20	18.02	315.70		80364-1.RAW	14:46:35	3938.26	Sample	OK	1
SEQ-CCV6	A17	1	18.02	5.14	102.78	80365-1.RAW	14:50:44	1294.32	Sample	OK	1
SEQ-CCB6	A18	1	18.02	0.29	0.00	80366-1.RAW	14:54:52	90.86	Sample	OK	1
1706489-05	A19	20	18.02	29.14		80367-1.RAW	14:59:02	379.86	Sample	OK	1
1706489-13	A20	20	18.02	51.23		80368-1.RAW	15:03:10	654.13	Sample	OK	1
1706489-14	A21	20	18.02	606.05		80369-1.RAW	15:07:18	7543.72	Sample	OK	1
1706489-15	B1	20	18.02	17.12		80370-1.RAW	15:11:27	230.61	Sample	OK	1
1706489-19	B2	20	18.02	54.39		80371-1.RAW	15:15:35	693.39	Sample	OK	1
F706635-DUP1	B3	20	18.02	8.44		80372-1.RAW	15:19:44	122.85	Sample	OK	1
F706635-MS1	B4	400	18.02	5242.33	55518.70	80373-1.RAW	15:23:52	3272.91	Sample	OK	1
F706635-MSD1	B5	400	18.02	5139.95		80374-1.RAW	15:28:00	3209.34	Sample	OK	1
SEQ-CCV7	B6	1	18.02	5.36	107.18	80375-1.RAW	15:32:09	1348.95	Sample	OK	1
SEQ-CCB7	B7	1	18.02	0.17	0.00	80376-1.RAW	15:36:17	60.34	Sample	OK	1

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7G06014, 7G06015, 7G06016
Reviewer: 0 <i>R 7/6/17</i>	Dataset ID(s): THg26002-170705-1
Date: 7/6/2017	WO (s) #: VARIOUS
Batch #(s): F707257, F706598, F706635	0

Analyst Initials BC **Reviewer Initials** R 7/6/17

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7G06014, 7G06015, 7G06016
Reviewer:	0 <i>BC 7/6/17</i>	Dataset ID(s):	THg26002-170705-1
Date:	7/6/2017	WO (s) #:	VARIOUS
Batch #(s):	F707257, F706598, F706635		0

Analyst Initials *BC*

Reviewer Initials *BC 7/6/17*

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |

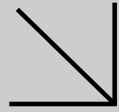
Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

Supplemental Report 1

The original report has been revised to include the Level IV deliverables package.

**WORK ORDER NUMBER: 17-06-1521**

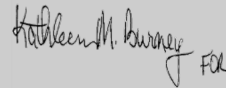
The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For**Client:** Eurofins Frontier Global Sciences, Inc.**Client Project Name:** 1706398

Attention: Amy Goodall
 11720 North Creek Parkway North
 Suite 4
 Bothell, WA 98011-8244



Approved for release on 07/13/2017 by:
 Carla Hollowell
 Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



Contents

Client Project Name: 1706398
Work Order Number: 17-06-1521

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Client Project Name: 1706398
Work Order Number: 17-06-1521

CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received 1 Tissue samples on June 21, 2017. A total of 1 container was received in good condition and at a temperature of 2.5°C, which is within the recommended temperature criteria of >0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
OV- 04_17ET015_060917_EEL_0 1-WB	17-06-1521-1	06/09/17 08:55	06/21/17 10:30

DATA SUMMARY:

Pursuant to the chain of custody document, the samples were analyzed using the following methodologies:

- % Lipids via MeCl₂ Ext. (NOAA 1993a)

The sample was analyzed within the suggested EPA holding time for the requested method, unless otherwise noted below.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Manual integrations made to the data will be noted in the following narrative. The initial and amended chromatograms have been included in the data package.

All sample and instrument QC were within acceptance criteria, unless otherwise noted below.

% Lipids via MeCl₂ Ext. (NOAA 1993a):

Sample -1 was analyzed for % Lipids via MeCl₂ Ext. (NOAA 1993a). The sample was prepared and analyzed on 07/03/17 in batch #s 170703B12 / 170703D12.

Sample and QC:

Sample -1 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/21/17. They were assigned to Work Order 17-06-1521.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



Calscience

Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	17-06-1521
11720 North Creek Parkway North, Suite 4	Project Name:	1706398
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	06/21/17 10:30
	Number of Containers:	1

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
OV-04_17ET015_060917_EEL_01-WB	17-06-1521-1	06/09/17 08:55	1	Tissue

Analytical Report

Eurofins Frontier Global Sciences, Inc.
11720 North Creek Parkway North, Suite 4
Bothell, WA 98011-8244

Date Received: 06/21/17
Work Order: 17-06-1521
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)
Units: %

Project: 1706398

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OV-04_17ET015_060917_EEL_01-WB	17-06-1521-1-AA	06/09/17 08:55	Tissue	N/A	07/03/17	07/03/17 00:00	170703B12

Parameter	Result	RL	DF	Qualifiers
% Lipids	2.5	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-104-178	N/A	Tissue	N/A	07/03/17	07/03/17 00:00	170703B12

Parameter	Result	RL	DF	Qualifiers
% Lipids	ND	0.10	1.00	



Calscience

Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.
11720 North Creek Parkway North, Suite 4
Bothell, WA 98011-8244

Date Received: 06/21/17
Work Order: 17-06-1521
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)

Project: 1706398

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
OV-04_17ET015_060917_EEL_01-WB	Sample	Tissue	N/A	07/03/17 00:00	07/03/17 00:00	170703D12
OV-04_17ET015_060917_EEL_01-WB	Sample Duplicate	Tissue	N/A	07/03/17 00:00	07/03/17 00:00	170703D12

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
% Lipids	2.508	2.296	9	0-25	

Glossary of Terms and Qualifiers

Work Order: 17-06-1521

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

1521

FRONT DESK
(425) 686-1996
FRONTIER GLOBAL SCIENCES
11720 N CREEK PKWY N
BOTHELL WA 98011-8244

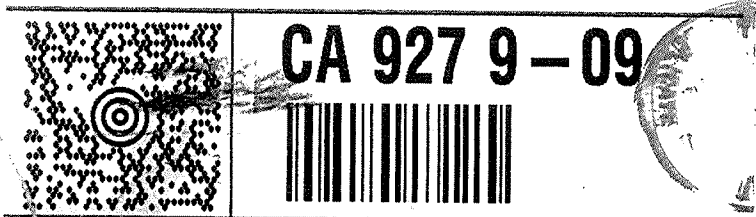
11 LBS

1 OF 1

DWT: 12,12,12

SHIP TO:

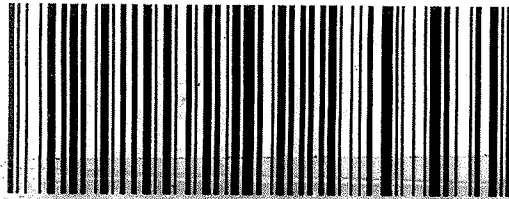
SAMPLE RECEIVING
(714) 895-5494
EUROFINS CALSCIENCE, INC.
7440 LINCOLN WAY
GARDEN GROVE CA 92841



UPS NEXT DAY AIR

1

TRACKING #: 1Z 86W 050 01 5103 9794



BILLING: P/P

Dept No.: OVERHEAD
REF 2:Subcontract

WS 20.0.29 25thra 2P 960 87.0A 04/2017



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Return to Contents

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: EFGS

DATE: 06 / 21 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 2.5 °C (w/ CF): 2.5 °C; Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____)

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: Air Filter

Checked by: IS

CUSTODY SEAL:

Cooler Present and Intact Present but Not Intact Not Present N/A Checked by: IS

Sample(s) Present and Intact Present but Not Intact Not Present N/A Checked by: 1053

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples Yes No N/A

COC document(s) received complete Yes No N/A

Sampling date Sampling time Matrix Number of containers

No analysis requested Not relinquished No relinquished date No relinquished time

Sampler's name indicated on COC Yes No N/A

Sample container label(s) consistent with COC Yes No N/A

Sample container(s) intact and in good condition Yes No N/A

Proper containers for analyses requested Yes No N/A

Sufficient volume/mass for analyses requested Yes No N/A

Samples received within holding time Yes No N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH Residual Chlorine Dissolved Sulfide Dissolved Oxygen Yes No N/A

Proper preservation chemical(s) noted on COC and/or sample container Yes No N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics Total Metals Dissolved Metals

Container(s) for certain analysis free of headspace Yes No N/A

Volatile Organics Dissolved Gases (RSK-175) Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500) Ferrous Iron (SM 3500) Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation Yes No N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: VOA VOA_h VOA_{na2} 100PJ 100PJ_{na2} 125AGB 125AGB_h 125AGB_p 125PB

125PB_{z_{na}} 250AGB 250CGB 250CGB_s 250PB 250PB_n 500AGB 500AGJ 500AGJ_s

500PB 1AGB 1AGB_{na2} 1AGB_s 1PB 1PB_{na} _____ _____ _____ _____

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (_____) EnCores® (_____) TerraCores® (_____) _____

Air: Tedlar™ Canister Sorbent Tube PUF _____ Other Matrix (TISSUE): Z _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1053

s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, z_{na} = Zn (CH₃CO₂)₂ + NaOH

Reviewed by: _____

% Lipids via MeCl₂ Ext. (NOAA 1993a)

RAW DATA

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1521
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

1 **CLIENT SAMPLE NUMBER:** OV-04_17ET015_060917_EEL_01-WB

LCS/MB BATCH: 170703B12 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D12 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	2.51	1.00	2.51	0.10	

METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

MB SAMPLE ID: 099-14-104-178
MB BATCH ID: 170703B12
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:
MATRIX: Tissue

DATA FILE:

CLIENT WORK ORDER: 17-06-1521

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
1		OV-04_17ET015_060917_EEL_01- WB	2017-07-03 00:00	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

MB **CLIENT SAMPLE NUMBER:** Method Blank

LCS/MB BATCH: 170703B12 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.00800	1.00	ND	0.10	

**DUPLICATE REPORT
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

DUP SAMPLE ID: 17-06-1521-1
DUP BATCH: 170703D12
INSTRUMENTS:
SAMPLE: N/A
DUP SAMPLE: N/A

EXTRACTION: N/A
D/T EXTRACTED:
SAMPLE: 2017-07-03 00:00
DUP SAMPLE: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED:
SAMPLE: 2017-07-03 00:00
DUP SAMPLE: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	2.508	2.296	9	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 07/03/17 Initials: 1134

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (If not passed, note removal or corrective action)
25	1	1.00	0.98 - 1.02	(Y) N	IO Lab
	100	99.92	98.00 - 102.00	(Y) N	
	500	499.68	498.00 - 502.00	(Y) N	
62	0.002	0.0020	0.00180 - 0.00220	(Y) N	IO Lab
	1	0.9994	0.99900 - 1.00100	(Y) N	
	100	99.9953	99.90000 - 100.10000	(Y) N	
26	1	1.00	0.98 - 1.02	(Y) N	IO Lab
	100	99.98	98.00 - 102.00	(Y) N	
55	1	0.99	0.98 - 1.02	(Y) N	IO Lab
	100	99.97	98.00 - 102.00	(Y) N	
	500	499.91	498.00 - 502.00	(Y) N	
11	1	1.00	0.98 - 1.02	(Y) N	IO Lab
	100	100.00	98.00 - 102.00	(Y) N	
66	0.002	0.0019	0.00180 - 0.00220	(Y) N	Metals
	1	0.9996	0.99900 - 1.00100	(Y) N	
	100	99.9995	99.90000 - 100.10000	(Y) N	
53	0.1		0.09 - 0.11	Y N	Extractions fluctuating - marked not in use
	1		0.98 - 1.02	Y N	
	100		98.00 - 102.00	Y N	
	500		498 - 502	Y N	
70	1	1.01	0.98 - 1.02	(Y) N	Extractions
	100	99.82	98.00 - 102.00	(Y) N	
	500	499.18	498.00 - 502.00	(Y) N	
57	100	100.0	98.0-102.0	(Y) N	Extractions
	1000	1000.0	998.0-1002.0	(Y) N	
	2000	2000.0	1998.0-2002.0	(Y) N	
52	0.002	0.0020	0.0018 - 0.0022	(Y) N	Extractions
	1	0.9997	0.9990 - 1.0010	(Y) N	
	100	99.9955	99.9000 - 100.1000	(Y) N	
71	0.002	0.0020	0.0018 - 0.0022	(Y) N	BOD Room
	1	0.9996	0.9990 - 1.0010	(Y) N	
	100	99.9958	99.9000 - 100.1000	(Y) N	
63	0.1	0.10	0.09 - 0.11	(Y) N	BOD Room
	100	99.99	98.00 - 102.00	(Y) N	
64	1	1.01	0.98 - 1.02	(Y) N	Metals Clean Room
	10	10.01	9.8 - 10.2	(Y) N	
	100	100.00	98.00 - 102.00	(Y) N	
72	0.002	0.0021	0.0018 - 0.0022	(Y) N	Oil & Grease Room
	1	0.9995	0.9990 - 1.0010	(Y) N	
	100	100.0005	99.9000 - 100.1000	(Y) N	
30	1	1.01	0.98 - 1.02	(Y) N	Oil & Grease Room
	100	100.03	98.00 - 102.00	(Y) N	

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	8330 Surrogate	Restek	31453	A0124792	2/28/02	1 ml	G	4/27/17	262	5-16-17	785	
2												
3												
4												
5												
6												
7												
8												
9												
10												
11	Dichloromethane	EMD	DX083FS	571076	4/26/17	200LXZ	DMM	4/26/17	142	4/26/17	142	
12	Custom PCB	AccuSTD	S-3850-R2	24405126	5/14/24	1 ml	G	4/28/17	262			
13												
14	8151 Spike	Chem Serv	M-OSM 81501	5133 800	6/30/18	5 ml	G	5/1/17	262	6/22/17	1096	
15												
16												
17												
18	Sand	EMD	SX0075-30	XH27A	5/2/22	1258X2	P	5/2/17	285	5/2/17	285	
19	SVOC Custom Std	AccuSTD	S-22976	216041571-01	6/1/19	1 ml	G	5/15/17	262	6/15/17	907	Verified
20												
21												
22												
23												
24	Dichloromethane	EMD	DX083FS	57118	5/15/20	200LXZ	DMM	5/15/17	142	5/15/17	142	
25	Hexane 95%		HX0295CS39	57037	5/15/20	200L						

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	Sodium Sulfate Anhydrous	Fisher	S421-10	166736	1/31/22	10kg x 5	P	5/18/17	1109	5/22/17	1109	
2	Sodium Chloride	Fisher	S271-10	163664	1/31/22	10kg x 2	P	5/22/17	928	5/22/17	928	
3	Sodium chloride	Fisher	S271-10 5275224	167535	5-23-22	10kg x 5	P	5-23-17	785	5-23-17	785	
4	Acetonitrile	Fisher	A 998-4	165380	5-23-20	4L x 3	G	5-23-17	285	5-23-17	785	
5	↓	↓	↓	102849	↓	4L x 3	G	5-23-17	↓	↓	↓	
6	Filter paper 18.5cm	Fisher	08-790-14F	A 1003622	NA	100 circular x 3	P	5-23-17	785	5-23-17	785	
7	↓	↓	↓	A 1018287	↓	100 circular x 3	P	↓	↓	↓	↓	
8	Chlorinated Herbicides - 8150B	Chem Service	MCSH8151899-ML	513900	6/20/2018	1ML	G	5/24/17	944			
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/6/17	1096	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
13	EPN	Accustd	P-220S-A	216091279	9/27/18	1ML	G	5/25/17	424	6/21/17	424	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
15	sulfatep	Accustd	M-622-24	214011220-01	3/8/19	1ML	G	5/25/17	424			
16	Custom pesticide STD	Accustd	S-22740-R1	213051032-5	08/24/18	1ml	G		669			
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
21	Ethanol	Accustd	M-8015660811	214101327	10/21/24	100g x 217	G	5/25/17	1078			
22	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
23	Tetraethyl lead	Accustd	S-1263	216101270	10/24/16	5 x 1ml	G	5/25/17	62	7-5-17	904	
24	Coal Tar	↓	ALR-0945-T	214101128-0	6/18/18	1 ml	G	↓	↓	↓	↓	
25	262 562717											

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	8141 spike	Restek	32277	AD123432	12/2017	1ml	G	6/7/17	428			
2										7/1/17	785	
3										7/1/17	785	
4										06/13/17	610	
5										06/23/17	610	
6												
7												
8												
9												
10												
11	Membrane disc Filter (S.I.L.C)	pull	Supp-450	T60011	N/A	5 boxes	B	06/08/17	787	06/08/17	787	
12	Dichloromethane	EMD	bx0881cs39	57132	6/8/2018	200L	PRUM	6/8/17	142	6/8/17	142	
13	Dibromochloromethane	AccuStd	M-SD2-17	215071153	7/14/2018	1 mL	G	6/9/17	1028			
14												
15	Hexachloropentadien	Ultras	EPA-1123-1	CM-1765E	7/3/19	1ml			669	06/26/17	669	
16												
17		Restek	32232	AD127073	4/2022					05/26/17	669	
18												
19												
20	8141 Custom STD	Ultras	CUS-11539	CR-2563	07/31/18							
21												
22												
23												
24												
25	Cellulose Filter for ASE 350	Restek	26168	105404	N/A	100PK x 350	P	6-16-17	785	6-16-17	785	

COMMENTS:

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1706399

July 14, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1706399

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AMEC Foster Wheeler
271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BO-04_17ET002_060517_EEL_01_WB	1706399-01	Tissue	05-Jun-17 09:48	13-Jun-17 10:00
BO-04_17ET002_060517_EEL_02_WB	1706399-02	Tissue	05-Jun-17 09:48	13-Jun-17 10:00
BO-04_17ET002_060517_EEL_03_WB	1706399-03	Tissue	05-Jun-17 09:48	13-Jun-17 10:00
BO-04_17ET003_060517_EEL_04_WB	1706399-04	Tissue	05-Jun-17 09:53	13-Jun-17 10:00
BO-04_17ET004_060517_EEL_05_WB	1706399-05	Tissue	05-Jun-17 09:57	13-Jun-17 10:00
BO-04_17ET005_060517_EEL_06_WB	1706399-06	Tissue	05-Jun-17 10:01	13-Jun-17 10:00
BO-04_17ET009_060517_EEL_07_WB	1706399-07	Tissue	05-Jun-17 10:10	13-Jun-17 10:00
BO-04_17ET012_060517_EEL_08_WB	1706399-08	Tissue	05-Jun-17 10:18	13-Jun-17 10:00
BO-04_17ET015_060517_EEL_09_WB	1706399-09	Tissue	05-Jun-17 10:51	13-Jun-17 10:00
BO-04_17ET015_060517_EEL_10_WB	1706399-10	Tissue	05-Jun-17 10:51	13-Jun-17 10:00
BO-04_17ET015_060517_EEL_11_WB	1706399-11	Tissue	05-Jun-17 10:51	13-Jun-17 10:00
BO-04_17ET015_060517_EEL_12_WB	1706399-12	Tissue	05-Jun-17 10:51	13-Jun-17 10:00
BO-04_17ET015_060517_EEL_13_WB	1706399-13	Tissue	05-Jun-17 10:51	13-Jun-17 10:00
BO-04_17ET015_060517_EEL_14_WB	1706399-14	Tissue	05-Jun-17 10:51	13-Jun-17 10:00
BO-04_17ET015_060517_EEL_15_WB	1706399-15	Tissue	05-Jun-17 10:51	13-Jun-17 10:00
BO-04_17ET016_060517_EEL_16_WB	1706399-16	Tissue	05-Jun-17 11:00	13-Jun-17 10:00
BO-04_17ET016_060517_EEL_17_WB	1706399-17	Tissue	05-Jun-17 11:00	13-Jun-17 10:00
BO-04_17ET017_060517_EEL_18_WB	1706399-18	Tissue	05-Jun-17 11:08	13-Jun-17 10:00
BO-04_17ET018_060517_EEL_19_WB	1706399-19	Tissue	05-Jun-17 11:13	13-Jun-17 10:00
BO-04_17ET020_060517_EEL_20_WB	1706399-20	Tissue	05-Jun-17 11:19	13-Jun-17 10:00
HORSESHOE CRAB_060717_EEL_BAIT	1706399-21	Tissue	07-Jun-17 10:14	13-Jun-17 10:00

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
14-Jul-17 11:18

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 6/13/2017 10:00:00 AM . The samples were received intact, on-ice within two sealed coolers at -42.0 and -47.0 degrees Celsius.

The tissue samples were sent to Eurofins Calscience for % Lipids by NOAA 1993a after EFGS completed the homogenization. The final data can be found at the end of the report after the Mercury raw data.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

The samples were prepped in batches F706597 and F706598. They were analyzed in sequences 7F30011 and 7G06014.

Sample 1706399-01 and 1706399-11 were used as the QC source for the Matrix Spike (MS) and Matrix Spike Duplicate (MSD) in batch F706597.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike

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Maricris dela Rosa, Project Manager



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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
14-Jul-17 11:18

duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

EFGS Work Order: 1706399

Client: AMC Foster Wheeler

Date & Time Received: 6/13/17 10:00

Date Labeled: 6/13/17 Labeled By: MM

Project: _____

Received By: LM

Label Verified By: CSR

of Coolers Received: 2 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Q/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>Y</u>	

TID:	CF:	Date/time:	By:
<u>5325</u>	<u>0.0 °C</u>	<u>6/13/17 10:00</u>	<u>LM</u>
Cooler 1: <u>-47 °C</u>	w/ CF: <u>-47 °C</u>	Cooler 4: °C	w/ CF: °C
Cooler 2: <u>-42 °C</u>	w/ CF: <u>-42 °C</u>	Cooler 5: °C	w/ CF: °C
Cooler 3: °C	w/ CF: °C	Cooler 6: °C	w/ CF: °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>N</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>NA</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>NA</u>	

Anomalies/Non-conformances (attach additional pages if needed):

1706399

Environmental Analysis Request/Chain of Custody

Page 1 of 2

Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101			Matrix			Analyses Requested				For Lab Use Only		
Project Name/#: USDC Penobscot		PN # 3616166082 04A_042		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Preservation Codes				SF #:		
Project Manager: Rod Pendleton		P.O. #		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>						SCR #:		
Sampler: KB/JP		PWSID #		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>						Preservation Codes		
Phone #:		Quote #:		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>						1 = Hg 2 = H ₂ O ₂ 3 = H ₂ SO ₄ 4 = Other		
State where samples were collected: ME		FIR Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>						T = Thiocyanate B = NaOH P = HNO ₃		
Collection			Composite		Soil		Water		Total # of Containers		Remarks	
Sample Identification		Date	Time	Grab	Soil	Water	Other:	Hg (EPA)	Zn (EPA)	Lipid (NOAA 1983)		
1	BO-04_17ET002_060517_EEL_02_WB	6/5/2017	0948	Grab			WB	1	1	1	Analyze for both Hg and Lipid from each sample	
2	BO-04_17ET002_060517_EEL_02_WB	6/5/2017	0948	Grab			WB	1	1	1		
3	BO-04_17ET002_060517_EEL_03_WB	6/5/2017	0948	Grab			WB	1	1	1		
4	BO-04_17ET003_060517_EEL_04_WB	6/5/2017	0953	Grab			WB	1	1	1		
5	BO-04_17ET004_060517_EEL_05_WB	6/5/2017	0957	Grab			WB	1	1	1		
6	BO-04_17ET005_060517_EEL_06_WB	6/5/2017	1001	Grab			WB	1	1	1		
7	BO-04_17ET009_060517_FFL_07_WB	6/5/2017	1010	Grab			WB	1	1	1		
8	BO-04_17ET012_060517_EEL_08_WB	6/5/2017	1018	Grab			WB	1	1	1		
9	BO-04_17ET015_060517_FFL_09_WB	6/5/2017	1051	Grab			WB	1	1	1		
10	BO-04_17ET015_060517_EEL_10_WB	6/5/2017	1051	Grab			WB	1	1	1		
11	BO-04_17ET015_060517_EEL_11_WB	6/5/2017	1051	Grab			WB	1	1	1		
12	BO-04_17ET015_060517_EEL_12_WB	6/5/2017	1051	Grab			WB	1	1	1		
13	BO-04_17ET015_060517_EEL_13_WB	6/5/2017	1051	Grab			WB	1	1	1		
14	BO-04_17ET015_060517_EEL_14_WB	6/5/2017	1051	Grab			WB	1	1	1		
15	BO-04_17ET015_060517_EEL_15_WB	6/5/2017	1051	Grab			WB	1	1	1		
16	BO-04_17ET016_060517_EEL_16_WB	6/5/2017	1100	Grab			WB	1	1	1		
17	BO-04_17ET016_060517_EEL_17_WB	6/5/2017	1100	Grab			WB	1	1	1		
18	BO-04_17ET017_060517_EEL_18_WB	6/5/2017	1108	Grab			WB	1	1	1		
19	BO-04_17ET018_060517_EEL_19_WB	6/5/2017	1113	Grab			WB	1	1	1		
20	BO-04_17ET020_060517_EEL_20_WB	6/5/2017	1119	Grab			WB	1	1	1		
Turnaround Time Requested (TAT) (please check):			Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Relinquished by:		Date:	Time:	Received by:	Date:	Time:	
(Rush TAT is subject to laboratory approval and surcharges.)					<i>[Signature]</i>		06/12/17	1750	<i>[Signature]</i>	6/12/17	10:00	
Notes:					Relinquished by:		Date:	Time:	Received by:	Date:	Time:	
9020 5003 8357 & 8368									Las Mutter			
FedEx #					Relinquished by:		Date:	Time:	Received by:	Date:	Time:	
# of Containers									EPD			
Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report.					Relinquished by:		Date:	Time:	Received by:	Date:	Time:	
Report and EDC ID: Benneking@amec.com / 978-992-6633												
Data Package Options (please check if required)					Relinquished by Commercial Carrier:		Date:	Time:	Received by:	Date:	Time:	
High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>												
EOD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					Relinquished by:		Date:	Time:	Received by:	Date:	Time:	
If yes, format: _____												
UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other <input type="checkbox"/>												
Temperature upon receipt: 47 °C												

Kus Seal



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	Reported: 06-Jul-17 17:48
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BO-04_17ET002_060517_EEL_01_WB
1706399-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	389	4.29	38.3	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	
---------	-----	------	------	------	------	---------	-----------	---------	-----------	-----------	--



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Project Manager: Denise King

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BO-04_17ET002_060517_EEL_02_WB
1706399-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	1320	4.35	38.8	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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BO-04_17ET002_060517_EEL_03_WB
1706399-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	732	4.22	37.7	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:48

BO-04_17ET003_060517_EEL_04_WB
1706399-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	430	3.85	34.4	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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Chelmsford MA, 01824

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Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:48

BO-04_17ET004_060517_EEL_05_WB
1706399-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	391	4.47	39.9	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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Chelmsford MA, 01824

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Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:48

BO-04_17ET005_060517_EEL_06_WB
1706399-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	422	4.14	37.0	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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BO-04_17ET009_060517_EEL_07_WB
1706399-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	643	4.17	37.2	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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BO-04_17ET012_060517_EEL_08_WB
1706399-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	488	4.37	39.0	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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BO-04_17ET015_060517_EEL_09_WB
1706399-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	485	3.81	34.0	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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BO-04_17ET015_060517_EEL_10_WB
1706399-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	540	4.06	36.2	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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BO-04_17ET015_060517_EEL_11_WB
1706399-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	483	4.23	37.7	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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BO-04_17ET015_060517_EEL_12_WB
1706399-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	589	4.07	36.3	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	

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BO-04_17ET015_060517_EEL_13_WB
1706399-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	519	4.14	37.0	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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BO-04_17ET015_060517_EEL_14_WB
1706399-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	648	4.48	40.0	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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BO-04_17ET015_060517_EEL_15_WB
1706399-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	489	4.11	36.7	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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BO-04_17ET016_060517_EEL_16_WB
1706399-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	604	4.04	36.0	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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BO-04_17ET016_060517_EEL_17_WB
1706399-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	493	4.25	38.0	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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BO-04_17ET017_060517_EEL_18_WB
1706399-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	679	4.46	39.8	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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BO-04_17ET018_060517_EEL_19_WB
1706399-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	294	4.32	38.6	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	



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BO-04_17ET020_060517_EEL_20_WB
1706399-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	386	4.21	37.6	ng/g	1000	F706597	28-Jun-17	7F30011	29-Jun-17	EPA 1631B	

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HORSESHOE CRAB_060717_EEL_BAIT
1706399-21

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	59.8	1.71	15.3	ng/g	400	F706598	26-Jun-17	7G06014	05-Jul-17	EPA 1631B	

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7F30011 - F706597											
Cal Standard (7F30011-CAL1)					Prepared & Analyzed: 29-Jun-17						
Mercury	0.547	-		ng/L	0.50100		109				
Cal Standard (7F30011-CAL2)					Prepared & Analyzed: 29-Jun-17						
Mercury	1.062	-		ng/L	1.0020		106				
Cal Standard (7F30011-CAL3)					Prepared & Analyzed: 29-Jun-17						
Mercury	4.820	-		ng/L	5.0100		96.2				
Cal Standard (7F30011-CAL4)					Prepared & Analyzed: 29-Jun-17						
Mercury	18.90	-		ng/L	20.040		94.3				
Cal Standard (7F30011-CAL5)					Prepared & Analyzed: 29-Jun-17						
Mercury	37.38	-		ng/L	40.080		93.3				
Calibration Blank (7F30011-CCB1)					Prepared & Analyzed: 29-Jun-17						
Mercury	0.180	-		ng/L							
Calibration Blank (7F30011-CCB2)					Prepared & Analyzed: 29-Jun-17						
Mercury	0.059	-		ng/L							
Calibration Blank (7F30011-CCB3)					Prepared & Analyzed: 29-Jun-17						
Mercury	0.063	-		ng/L							
Calibration Blank (7F30011-CCB4)					Prepared & Analyzed: 29-Jun-17						
Mercury	0.033	-		ng/L							
Calibration Blank (7F30011-CCB5)					Prepared & Analyzed: 29-Jun-17						
Mercury	0.125	-		ng/L							

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7F30011 - F706597											
Calibration Blank (7F30011-CCB6)											
Mercury	0.093	-		ng/L							Prepared & Analyzed: 29-Jun-17
Calibration Blank (7F30011-CCB7)											
Mercury	0.113	-		ng/L							Prepared & Analyzed: 29-Jun-17
Calibration Blank (7F30011-CCB8)											
Mercury	0.050	-		ng/L							Prepared & Analyzed: 29-Jun-17
Calibration Blank (7F30011-CCB9)											
Mercury	0.083	-		ng/L							Prepared & Analyzed: 29-Jun-17
Calibration Blank (7F30011-CCBA)											
Mercury	0.058	-		ng/L							Prepared & Analyzed: 29-Jun-17
Calibration Blank (7F30011-CCBB)											
Mercury	0.078	-		ng/L							Prepared & Analyzed: 29-Jun-17
Calibration Blank (7F30011-CCBC)											
Mercury	0.079	-		ng/L							Prepared & Analyzed: 29-Jun-17
Calibration Check (7F30011-CCV1)											
Mercury	5.187	-		ng/L	5.0000		104	77-123			Prepared & Analyzed: 29-Jun-17
Calibration Check (7F30011-CCV2)											
Mercury	4.803	-		ng/L	5.0000		96.1	77-123			Prepared & Analyzed: 29-Jun-17
Calibration Check (7F30011-CCV3)											
Mercury	4.839	-		ng/L	5.0000		96.8	77-123			Prepared & Analyzed: 29-Jun-17

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Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7F30011 - F706597											
Calibration Check (7F30011-CCV4) Prepared & Analyzed: 29-Jun-17											
Mercury	4.750	-		ng/L	5.0000		95.0	77-123			
Calibration Check (7F30011-CCV5) Prepared & Analyzed: 29-Jun-17											
Mercury	4.971	-		ng/L	5.0000		99.4	77-123			
Calibration Check (7F30011-CCV6) Prepared & Analyzed: 29-Jun-17											
Mercury	4.692	-		ng/L	5.0000		93.8	77-123			
Calibration Check (7F30011-CCV7) Prepared & Analyzed: 29-Jun-17											
Mercury	4.975	-		ng/L	5.0000		99.5	77-123			
Calibration Check (7F30011-CCV8) Prepared & Analyzed: 29-Jun-17											
Mercury	4.937	-		ng/L	5.0000		98.7	77-123			
Calibration Check (7F30011-CCV9) Prepared & Analyzed: 29-Jun-17											
Mercury	5.101	-		ng/L	5.0000		102	77-123			
Calibration Check (7F30011-CCVA) Prepared & Analyzed: 29-Jun-17											
Mercury	5.016	-		ng/L	5.0000		100	77-123			
Calibration Check (7F30011-CCVB) Prepared & Analyzed: 29-Jun-17											
Mercury	4.895	-		ng/L	5.0000		97.9	77-123			
Calibration Check (7F30011-CCVC) Prepared & Analyzed: 29-Jun-17											
Mercury	4.509	-		ng/L	5.0000		90.2	77-123			
Instrument Blank (7F30011-IBL1) Prepared & Analyzed: 29-Jun-17											
Mercury	ND	0.004	0.040	ng/L							U



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Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7F30011 - F706597

Instrument Blank (7F30011-IBL2)											
											Prepared & Analyzed: 29-Jun-17
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7F30011-IBL3)											
											Prepared & Analyzed: 29-Jun-17
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7F30011-ICV1)											
											Prepared & Analyzed: 29-Jun-17
Mercury	4.900	-		ng/L	5.0000		98.0	79-121			

Batch 7G06014 - F706598

Cal Standard (7G06014-CAL1)											
											Prepared & Analyzed: 05-Jul-17
Mercury	0.526	-		ng/L	0.50100		105				
Cal Standard (7G06014-CAL3)											
											Prepared & Analyzed: 05-Jul-17
Mercury	4.836	-		ng/L	5.0100		96.5				
Cal Standard (7G06014-CAL4)											
											Prepared & Analyzed: 05-Jul-17
Mercury	18.61	-		ng/L	20.040		92.9				
Cal Standard (7G06014-CAL5)											
											Prepared & Analyzed: 05-Jul-17
Mercury	37.80	-		ng/L	40.080		94.3				
Cal Standard (7G06014-CAL6)											
											Prepared & Analyzed: 05-Jul-17
Mercury	1.106	-		ng/L	1.0020		110				
Calibration Blank (7G06014-CCB1)											
											Prepared & Analyzed: 05-Jul-17
Mercury	0.040	-		ng/L							



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Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7G06014 - F706598											
Calibration Blank (7G06014-CCB2) Prepared & Analyzed: 05-Jul-17											
Mercury	0.069	-		ng/L							
Calibration Check (7G06014-CCV1) Prepared & Analyzed: 05-Jul-17											
Mercury	4.962	-		ng/L	5.0000		99.2	77-123			
Calibration Check (7G06014-CCV2) Prepared & Analyzed: 05-Jul-17											
Mercury	5.058	-		ng/L	5.0000		101	77-123			
Instrument Blank (7G06014-IBL1) Prepared & Analyzed: 05-Jul-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7G06014-IBL2) Prepared & Analyzed: 05-Jul-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7G06014-IBL3) Prepared & Analyzed: 05-Jul-17											
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7G06014-ICV1) Prepared & Analyzed: 05-Jul-17											
Mercury	4.978	-		ng/L	5.0000		99.6	79-121			
Batch F706597 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F706597-BLK1) Prepared: 28-Jun-17 Analyzed: 29-Jun-17											
Mercury	0.122	0.090	0.800	ng/g							J
Blank (F706597-BLK2) Prepared: 28-Jun-17 Analyzed: 29-Jun-17											
Mercury	ND	0.090	0.800	ng/g							U

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Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F706597 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F706597-BLK3)					Prepared: 28-Jun-17 Analyzed: 29-Jun-17						
Mercury	ND	0.090	0.800	ng/g							U
Blank (F706597-BLK4)					Prepared: 28-Jun-17 Analyzed: 29-Jun-17						
Mercury	ND	0.082	0.734	ng/g							F-03, U
Blank (F706597-BLK5)					Prepared: 28-Jun-17 Analyzed: 29-Jun-17						
Mercury	ND	0.085	0.755	ng/g							U, F-03
LCS (F706597-BS1)					Prepared: 28-Jun-17 Analyzed: 29-Jun-17						
Mercury	7.207	0.090	0.800	ng/g	8.0160		89.9	75-125			
LCS (F706597-BS2)					Prepared: 28-Jun-17 Analyzed: 29-Jun-17						
Mercury	312.1	3.54	31.6	ng/g	382.50		81.6	75-125			
LCS Dup (F706597-BSD1)					Prepared: 28-Jun-17 Analyzed: 29-Jun-17						
Mercury	7.430	0.090	0.800	ng/g	8.0160		92.7	75-125	3.05	24	
Duplicate (F706597-DUP1)					Source: 1706399-01RE1 Prepared: 28-Jun-17 Analyzed: 29-Jun-17						
Mercury	364.4	3.95	35.3	ng/g		388.6			6.45	24	
Matrix Spike (F706597-MS1)					Source: 1706399-01RE1 Prepared: 28-Jun-17 Analyzed: 29-Jun-17						
Mercury	680.4	4.16	37.2	ng/g	371.75	388.6	78.5	71-125			
Matrix Spike (F706597-MS2)					Source: 1706399-11 Prepared: 28-Jun-17 Analyzed: 29-Jun-17						
Mercury	766.1	4.11	36.7	ng/g	367.24	483.1	77.1	71-125			
Matrix Spike Dup (F706597-MSD1)					Source: 1706399-01RE1 Prepared: 28-Jun-17 Analyzed: 29-Jun-17						
Mercury	688.1	4.25	37.9	ng/g	379.08	388.6	79.0	71-125	0.639	24	



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Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F706597 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Matrix Spike Dup (F706597-MSD2)		Source: 1706399-11			Prepared: 28-Jun-17 Analyzed: 29-Jun-17						
Mercury	812.4	4.09	36.5	ng/g	365.23	483.1	90.2	71-125	15.7	24	
Batch F706598 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F706598-BLK1)		Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	0.121	0.090	0.800	ng/g							J
Blank (F706598-BLK2)		Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	ND	0.090	0.800	ng/g							U
Blank (F706598-BLK3)		Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	ND	0.090	0.800	ng/g							U
Blank (F706598-BLK4)		Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	ND	0.082	0.732	ng/g							F-03, U
Blank (F706598-BLK5)		Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	ND	0.083	0.741	ng/g							F-03, U
Blank (F706598-BLK6)		Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	ND	0.087	0.777	ng/g							F-03, U
LCS (F706598-BS1)		Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	7.578	0.090	0.800	ng/g	8.0160		94.5	75-125			
LCS (F706598-BS2)		Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	348.5	3.47	31.0	ng/g	382.50		91.1	75-125			



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	Reported: 06-Jul-17 17:48
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F706598 - EFGS-011 Nitric/Sulfuric Hg Digestion

LCS Dup (F706598-BSD1)		Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	7.290	0.090	0.800	ng/g	8.0160		90.9	75-125	3.87	24	
Duplicate (F706598-DUP1)		Source: 1706398-01 Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	291.7	1.62	14.5	ng/g		305.7			4.68	24	
Matrix Spike (F706598-MS1)		Source: 1706398-01 Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	644.7	1.67	14.9	ng/g	372.58	305.7	91.0	71-125			
Matrix Spike Dup (F706598-MSD1)		Source: 1706398-01 Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	651.6	1.68	15.0	ng/g	374.95	305.7	92.2	71-125	1.38	24	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King**Reported:**
06-Jul-17 17:48**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- E-01 Sample was preceded by a sample exceeding the calibration curve and was reanalyzed for confirmation.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26003-170629-1

Analysis Datasheet for Total Mercury

Date of Analysis: June 29, 2017
Instrument #: Hg2600-3
LIMS Sequence #: 7F30011

Analyst: DM2
Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	136.04 units	272.08	128.51 units	257.03	109.4 %Rec
SEQ-CAL2	1	1.00 ng/L	256.99 units	256.99	249.47 units	249.47	106.2 %Rec
SEQ-CAL3	1	5.00 ng/L	1139.65 units	227.93	1132.12 units	226.42	96.4 %Rec
SEQ-CAL4	1	20.00 ng/L	4445.67 units	222.28	4438.14 units	221.91	94.5 %Rec
SEQ-CAL5	1	40.00 ng/L	8787.15 units	219.68	8779.63 units	219.49	93.5 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
234.86	+/- 17.18	7.3% RSD	239.79

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	7.53 units	±0.71	0.03 ng/L	±0.00

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.975 ng/L	±0.485
BLK	2	3	1.169 ng/L	±0.483
BLK	3	3	1.871 ng/L	±0.742
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: RL 6/30/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	DM2	CAL	SEQ-IBL1	1	6/29/2017 7:24:23	69865-1.RAW	7:24:23 AM	8.05			0.5	0.002	0.002	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	6/29/2017 7:28:31	69866-1.RAW	7:28:31 AM	7.80			0.3	0.001	0.001	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	6/29/2017 7:32:40	69867-1.RAW	7:32:40 AM	6.72			-0.8	-0.003	-0.003	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	6/29/2017 7:36:48	69868-1.RAW	7:36:48 AM	136.04			128.5	0.547	0.547	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	6/29/2017 7:40:57	69869-1.RAW	7:40:57 AM	256.99			249.5	1.062	1.062	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	6/29/2017 7:45:05	69870-1.RAW	7:45:05 AM	1139.65			1132.1	4.820	4.820	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	6/29/2017 7:49:14	69871-1.RAW	7:49:14 AM	4445.67			4438.1	18.897	18.897	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	6/29/2017 7:53:22	69872-1.RAW	7:53:22 AM	8787.15			8779.6	37.382	37.382	ng/L	
Hg2600-3	DM2	BLK	F706597-BLK1	20	6/29/2017 7:57:31	69873-1.RAW	7:57:31 AM	1158.45			1150.9	4.900	4.900	ng/L	
Hg2600-3	DM2	BLK	F706597-BLK2	20	6/29/2017 8:01:39	69874-1.RAW	8:01:39 AM	25.50	1		18.0	0.077	1.531	ng/L	
Hg2600-3	DM2	BLK	F706597-BLK3	20	6/29/2017 8:05:47	69875-1.RAW	8:05:47 AM	16.47	1		8.9	0.038	0.762	ng/L	
Hg2600-3	DM2	SAM	*F706597-BLK4	20	6/29/2017 8:09:56	69876-1.RAW	8:09:56 AM	14.96	1		7.4	0.032	0.633	ng/L	
Hg2600-3	DM2	SAM	*F706597-BLK5	20	6/29/2017 8:14:04	69877-1.RAW	8:14:04 AM	16.75	1		9.2	-0.009	-0.190	ng/L	
Hg2600-3	DM2	SAM	F706597-BS1	20	6/29/2017 8:18:13	69878-1.RAW	8:18:13 AM	12.60	1		5.1	-0.027	-0.543	ng/L	
Hg2600-3	DM2	SAM	F706597-BSD1	20	6/29/2017 8:22:21	69879-1.RAW	8:22:21 AM	1076.94	1		1069.4	4.505	90.091	ng/L	
Hg2600-3	DM2	SAM	F706597-BS2	400	6/29/2017 8:26:30	69880-1.RAW	8:26:30 AM	1109.70	1		1102.2	4.644	92.881	ng/L	
Hg2600-3	DM2	SAM	1706399-01	100	6/29/2017 8:30:38	69881-1.RAW	8:30:38 AM	1169.09	1		1161.6	4.943	1977.309	ng/L	
Hg2600-3	DM2	SAM	1706399-02	100	6/29/2017 8:34:47	69882-1.RAW	8:34:47 AM	9948.78	1		9941.3	42.318	4231.806	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	6/29/2017 8:38:55	69883-1.RAW	8:38:55 AM	39552.32	1		39544.8	168.364	16836.385	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	6/29/2017 8:43:03	69884-1.RAW	8:43:03 AM	1225.74			1218.2	5.187	5.187	ng/L	
Hg2600-3	DM2	SAM	1706399-03	1000	6/29/2017 8:47:12	69885-1.RAW	8:47:12 AM	49.77			42.2	0.180	0.180	ng/L	
Hg2600-3	DM2	SAM	1706399-04	1000	6/29/2017 8:51:20	69886-1.RAW	8:51:20 AM	2288.85	1		2281.3	9.712	9712.450	ng/L	
Hg2600-3	DM2	SAM	1706399-05	1000	6/29/2017 8:55:29	69887-1.RAW	8:55:29 AM	1477.40	1		1469.9	6.257	6257.438	ng/L	
Hg2600-3	DM2	SAM	1706399-06	1000	6/29/2017 8:59:37	69888-1.RAW	8:59:37 AM	1156.78	1		1149.3	4.892	4892.317	ng/L	
Hg2600-3	DM2	SAM	1706399-07	1000	6/29/2017 9:03:46	69889-1.RAW	9:03:46 AM	1349.08	1		1341.6	5.711	5711.099	ng/L	
Hg2600-3	DM2	SAM	1706399-08	1000	6/29/2017 9:07:54	69890-1.RAW	9:07:54 AM	2034.62	1		2027.1	8.630	8629.961	ng/L	
Hg2600-3	DM2	SAM	1706399-09	1000	6/29/2017 9:12:03	69891-1.RAW	9:12:03 AM	1476.27	1		1468.7	6.253	6252.648	ng/L	
Hg2600-3	DM2	SAM	1706399-10	1000	6/29/2017 9:16:11	69892-1.RAW	9:16:11 AM	1680.98	1		1673.4	7.124	7124.224	ng/L	
Hg2600-3	DM2	SAM	1706399-11	1000	6/29/2017 9:20:19	69893-1.RAW	9:20:19 AM	1757.54	1		1750.0	7.450	7450.219	ng/L	
Hg2600-3	DM2	SAM	1706399-12	1000	6/29/2017 9:24:28	69894-1.RAW	9:24:28 AM	1511.11	1		1503.6	6.401	6400.988	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	6/29/2017 9:28:36	69895-1.RAW	9:28:36 AM	1912.00	1		1904.5	8.108	8107.872	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	6/29/2017 9:32:45	69896-1.RAW	9:32:45 AM	1135.49			1128.0	4.803	4.803	ng/L	
Hg2600-3	DM2	SAM	1706399-13	1000	6/29/2017 9:36:53	69897-1.RAW	9:36:53 AM	21.38			13.9	0.059	0.059	ng/L	
Hg2600-3	DM2	SAM	1706399-14	1000	6/29/2017 9:41:02	69898-1.RAW	9:41:02 AM	1654.08	1		1646.5	7.010	7009.694	ng/L	
Hg2600-3	DM2	SAM	1706399-15	1000	6/29/2017 9:45:10	69899-1.RAW	9:45:10 AM	1912.35	1		1904.8	8.109	8109.351	ng/L	
Hg2600-3	DM2	SAM	1706399-16	1000	6/29/2017 9:49:19	69900-1.RAW	9:49:19 AM	1573.75	1		1566.2	6.668	6667.694	ng/L	
Hg2600-3	DM2	SAM	1706399-17	1000	6/29/2017 9:53:27	69901-1.RAW	9:53:27 AM	1974.23	1		1966.7	8.373	8372.853	ng/L	
Hg2600-3	DM2	SAM	1706399-18	1000	6/29/2017 9:57:35	69902-1.RAW	9:57:35 AM	1530.58	1		1523.1	6.484	6483.869	ng/L	
Hg2600-3	DM2	SAM	1706399-19	1000	6/29/2017 10:01:44	69903-1.RAW	10:01:44 AM	2010.96	1		2003.4	8.529	8529.239	ng/L	
Hg2600-3	DM2	SAM	1706399-20	1000	6/29/2017 10:05:52	69904-1.RAW	10:05:52 AM	901.77	1		894.2	3.807	3806.542	ng/L	
Hg2600-3	DM2	SAM	1706399-01RE1	1000	6/29/2017 10:10:01	69905-1.RAW	10:10:01 AM	1213.91	1		1206.4	5.136	5135.574	ng/L	
Hg2600-3	DM2	SAM	1706399-02RE1	1000	6/29/2017 10:14:09	69906-1.RAW	10:14:09 AM	1198.88	1		1191.4	5.072	5071.553	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	6/29/2017 10:18:18	69907-1.RAW	10:18:18 AM	4008.21	1		4000.7	17.033	17033.107	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	6/29/2017 10:22:26	69908-1.RAW	10:22:26 AM	1144.06			1136.5	4.839	4.839	ng/L	
Hg2600-3	DM2	SAM	F706597-DUP1	1000	6/29/2017 10:26:34	69909-1.RAW	10:26:34 AM	22.26			14.7	0.063	0.063	ng/L	
Hg2600-3	DM2	SAM	F706597-MS1	1000	6/29/2017 10:30:43	69910-1.RAW	10:30:43 AM	1219.48	1		1212.0	5.159	5159.291	ng/L	
Hg2600-3	DM2	SAM	F706597-MSD1	1000	6/29/2017 10:34:51	69911-1.RAW	10:34:51 AM	2157.16	1		2149.6	9.152	9151.703	ng/L	
Hg2600-3	DM2	SAM	F706597-MS2	1000	6/29/2017 10:39:00	69912-1.RAW	10:39:00 AM	2139.34	1		2131.8	9.076	9075.831	ng/L	
Hg2600-3	DM2	SAM	F706597-MSD2	1000	6/29/2017 10:43:08	69913-1.RAW	10:43:08 AM	2457.59	1		2450.1	10.431	10430.895	ng/L	
Hg2600-3	DM2	BLK	F706342-BLK1	20	6/29/2017 10:47:17	69914-1.RAW	10:47:17 AM	2619.82	1		2612.3	11.122	11121.624	ng/L	
Hg2600-3	DM2	BLK	F706342-BLK2	20	6/29/2017 10:51:25	69915-1.RAW	10:51:25 AM	27.76	2		20.2	0.086	1.723	ng/L	
Hg2600-3	DM2	BLK	F706342-BLK3	20	6/29/2017 10:55:34	69916-1.RAW	10:55:34 AM	17.31	2		9.8	0.042	0.833	ng/L	
Hg2600-3	DM2	SAM	*F706342-BLK4	20	6/29/2017 10:59:42	69917-1.RAW	10:59:42 AM	18.70	2		11.2	0.048	0.952	ng/L	
Hg2600-3	DM2	SAM	*F706342-BLK5	20	6/29/2017 11:03:50	69918-1.RAW	11:03:50 AM	17.20	2		9.7	-0.017	-0.346	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	6/29/2017 11:07:59	69919-1.RAW	11:07:59 AM	16.00	2		8.5	-0.022	-0.448	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	6/29/2017 11:12:07	69920-1.RAW	11:12:07 AM	1123.09			1115.6	4.750	4.750	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	6/29/2017 11:16:16	69921-1.RAW	11:16:16 AM	15.35			7.8	0.033	0.033	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	DM2	SAM	F706342-BS1	20	6/29/2017 11:20:24	69922-1.RAW	11:20:24 AM	1130.31	2		1122.8	4.722	94.443	ng/L	
Hg2600-3	DM2	SAM	F706342-BSD1	20	6/29/2017 11:24:33	69923-1.RAW	11:24:33 AM	1088.78	2		1081.2	4.545	90.906	ng/L	
Hg2600-3	DM2	SAM	F706342-BS2	400	6/29/2017 11:28:41	69924-1.RAW	11:28:41 AM	1158.64	2		1151.1	4.898	1959.319	ng/L	
Hg2600-3	DM2	SAM	1706144-01	100	6/29/2017 11:32:50	69925-1.RAW	11:32:50 AM	10909.92	2		10902.4	46.408	4640.845	ng/L	
Hg2600-3	DM2	SAM	1706144-02	100	6/29/2017 11:36:58	69926-1.RAW	11:36:58 AM	12158.74	2		12151.2	51.726	5172.567	ng/L	
Hg2600-3	DM2	SAM	1706144-03	100	6/29/2017 11:41:06	69927-1.RAW	11:41:06 AM	22840.02	2		22832.5	97.204	9720.438	ng/L	
Hg2600-3	DM2	SAM	1706144-04	100	6/29/2017 11:45:15	69928-1.RAW	11:45:15 AM	6509.81	2		6502.3	27.674	2767.370	ng/L	
Hg2600-3	DM2	SAM	1706144-06	100	6/29/2017 11:49:23	69929-1.RAW	11:49:23 AM	8082.09	2		8074.6	34.368	3436.813	ng/L	
Hg2600-3	DM2	SAM	1706144-08	100	6/29/2017 11:53:32	69930-1.RAW	11:53:32 AM	4008.12	2		4000.6	17.022	1702.203	ng/L	
Hg2600-3	DM2	SAM	1706144-09	100	6/29/2017 11:57:40	69931-1.RAW	11:57:40 AM	8863.82	2		8856.3	37.697	3769.659	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	6/29/2017 12:01:49	69932-1.RAW	12:01:49 PM	1175.024862			1167.5	4.971	4.971	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	6/29/2017 12:05:57	69933-1.RAW	12:05:57 PM	36.88			29.4	0.125	0.125	ng/L	
Hg2600-3	DM2	SAM	1706144-10	400	6/29/2017 12:10:06	69934-1.RAW	12:10:06 PM	1103.63	2		1096.1	4.664	1865.632	ng/L	
Hg2600-3	DM2	SAM	1706144-12	400	6/29/2017 12:14:14	69935-1.RAW	12:14:14 PM	2249.65	2		2242.1	9.544	3817.439	ng/L	
Hg2600-3	DM2	SAM	1706144-13	400	6/29/2017 12:18:23	69936-1.RAW	12:18:23 PM	7016.00	2		7008.5	29.838	11935.094	ng/L	
Hg2600-3	DM2	SAM	1706144-14	400	6/29/2017 12:22:31	69937-1.RAW	12:22:31 PM	2362.71	2		2355.2	10.025	4009.990	ng/L	
Hg2600-3	DM2	SAM	1706144-15	400	6/29/2017 12:26:39	69938-1.RAW	12:26:39 PM	1976.16	2		1968.6	8.379	3351.642	ng/L	
Hg2600-3	DM2	SAM	1706144-16	400	6/29/2017 12:30:48	69939-1.RAW	12:30:48 PM	1854.81	2		1847.3	7.862	3144.971	ng/L	
Hg2600-3	DM2	SAM	1706144-17	400	6/29/2017 12:34:56	69940-1.RAW	12:34:56 PM	2052.65	2		2045.1	8.705	3481.913	ng/L	
Hg2600-3	DM2	SAM	1706144-18	400	6/29/2017 12:39:05	69941-1.RAW	12:39:05 PM	1734.04	2		1726.5	7.348	2939.287	ng/L	
Hg2600-3	DM2	SAM	1706144-19	400	6/29/2017 12:43:13	69942-1.RAW	12:43:13 PM	1787.68	2		1780.2	7.577	3030.638	ng/L	
Hg2600-3	DM2	SAM	1706144-20	400	6/29/2017 12:47:22	69943-1.RAW	12:47:22 PM	1591.49	2		1584.0	6.741	2696.503	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	6/29/2017 12:51:30	69944-1.RAW	12:51:30 PM	1109.59			1102.1	4.692	4.692	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	6/29/2017 12:55:38	69945-1.RAW	12:55:38 PM	29.26			21.7	0.093	0.093	ng/L	
Hg2600-3	DM2	SAM	1706144-21	400	6/29/2017 12:59:47	69946-1.RAW	12:59:47 PM	2645.39	2		2637.9	11.229	4491.424	ng/L	
Hg2600-3	DM2	SAM	1706144-22	400	6/29/2017 13:03:55	69947-1.RAW	1:03:55 PM	1945.93	2		1938.4	8.250	3300.166	ng/L	
Hg2600-3	DM2	SAM	1706144-23	400	6/29/2017 13:08:04	69948-1.RAW	1:08:04 PM	1314.32	2		1306.8	5.561	2224.459	ng/L	
Hg2600-3	DM2	SAM	1706144-01RE1	400	6/29/2017 13:12:12	69949-1.RAW	1:12:12 PM	2779.64	2		2772.1	11.800	4720.067	ng/L	
Hg2600-3	DM2	SAM	1706144-02RE1	400	6/29/2017 13:16:21	69950-1.RAW	1:16:21 PM	3079.97	2		3072.4	13.079	5231.566	ng/L	
Hg2600-3	DM2	SAM	1706144-03RE1	400	6/29/2017 13:20:29	69951-1.RAW	1:20:29 PM	5899.72	2		5892.2	25.085	10033.932	ng/L	
Hg2600-3	DM2	SAM	1706144-04RE1	100	6/29/2017 13:24:37	69952-1.RAW	1:24:37 PM	6398.47	2		6390.9	27.200	2719.965	ng/L	
Hg2600-3	DM2	SAM	F706342-DUP1	400	6/29/2017 13:28:46	69953-1.RAW	1:28:46 PM	2991.62	2		2984.1	12.703	5081.088	ng/L	
Hg2600-3	DM2	SAM	F706342-MS1	400	6/29/2017 13:32:54	69954-1.RAW	1:32:54 PM	5673.71	2		5666.2	24.123	9649.011	ng/L	
Hg2600-3	DM2	SAM	F706342-MSD1	400	6/29/2017 13:37:03	69955-1.RAW	1:37:03 PM	5781.82	2		5774.3	24.583	9833.138	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	6/29/2017 13:41:11	69956-1.RAW	1:41:11 PM	1176.08			1168.6	4.975	4.975	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	6/29/2017 13:45:20	69957-1.RAW	1:45:20 PM	34.00			26.5	0.113	0.113	ng/L	
Hg2600-3	DM2	SAM	F706342-MS2	400	6/29/2017 13:49:28	69958-1.RAW	1:49:28 PM	4376.82	2		4369.3	18.601	7440.249	ng/L	
Hg2600-3	DM2	SAM	F706342-MSD2	400	6/29/2017 13:53:37	69959-1.RAW	1:53:37 PM	4288.98	2		4281.5	18.227	7290.649	ng/L	
Hg2600-3	DM2	BLK	F706343-BLK1	20	6/29/2017 13:57:45	69960-1.RAW	1:57:45 PM	39.52	3		32.0	0.136	2.725	ng/L	
Hg2600-3	DM2	BLK	F706343-BLK2	20	6/29/2017 14:01:53	69961-1.RAW	2:01:53 PM	25.25	3		17.7	0.075	1.509	ng/L	
Hg2600-3	DM2	BLK	F706343-BLK3	20	6/29/2017 14:06:02	69962-1.RAW	2:06:02 PM	23.72	3		16.2	0.069	1.379	ng/L	
Hg2600-3	DM2	SAM	F706343-BS1	20	6/29/2017 14:10:10	69963-1.RAW	2:10:10 PM	1124.79	3		1117.3	4.664	93.271	ng/L	
Hg2600-3	DM2	SAM	F706343-BSD1	20	6/29/2017 14:14:19	69964-1.RAW	2:14:19 PM	1134.71	3		1127.2	4.706	94.115	ng/L	
Hg2600-3	DM2	SAM	F706343-BS2	400	6/29/2017 14:18:27	69965-1.RAW	2:18:27 PM	1161.82	3		1154.3	4.910	1964.019	ng/L	
Hg2600-3	DM2	SAM	1706144-24	400	6/29/2017 14:22:36	69966-1.RAW	2:22:36 PM	4349.95	3		4342.4	18.484	7393.783	ng/L	
Hg2600-3	DM2	SAM	1706144-25	400	6/29/2017 14:26:44	69967-1.RAW	2:26:44 PM	1416.58	3		1409.1	5.995	2397.921	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	6/29/2017 14:30:53	69968-1.RAW	2:30:53 PM	1167.11			1159.6	4.937	4.937	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	6/29/2017 14:35:01	69969-1.RAW	2:35:01 PM	19.28			11.8	0.050	0.050	ng/L	
Hg2600-3	DM2	SAM	1706144-26	400	6/29/2017 14:39:09	69970-1.RAW	2:39:09 PM	1293.76	3		1286.2	5.472	2188.734	ng/L	
Hg2600-3	DM2	SAM	1706144-27	400	6/29/2017 14:43:18	69971-1.RAW	2:43:18 PM	2039.33	3		2031.8	8.646	3458.531	ng/L	
Hg2600-3	DM2	SAM	1706144-28	400	6/29/2017 14:47:26	69972-1.RAW	2:47:26 PM	2547.63	3		2540.1	10.811	4324.232	ng/L	
Hg2600-3	DM2	SAM	1706144-29	400	6/29/2017 14:51:35	69973-1.RAW	2:51:35 PM	1537.44	3		1529.9	6.509	2603.755	ng/L	
Hg2600-3	DM2	SAM	1706144-30	400	6/29/2017 14:55:43	69974-1.RAW	2:55:43 PM	1462.24	3		1454.7	6.189	2475.680	ng/L	
Hg2600-3	DM2	SAM	1706144-31	400	6/29/2017 14:59:52	69975-1.RAW	2:59:52 PM	1521.47	3		1513.9	6.441	2576.550	ng/L	
Hg2600-3	DM2	SAM	1706144-33	400	6/29/2017 15:04:00	69976-1.RAW	3:04:00 PM	2227.70	3		2220.2	9.448	3779.347	ng/L	
Hg2600-3	DM2	SAM	1706144-34	400	6/29/2017 15:08:09	69977-1.RAW	3:08:09 PM	2041.62	3		2034.1	8.656	3462.422	ng/L	
Hg2600-3	DM2	SAM	1706144-36	400	6/29/2017 15:12:17	69978-1.RAW	3:12:17 PM	3894.71	3		3887.2	16.546	6618.463	ng/L	
Hg2600-3	DM2	SAM	1706144-37	400	6/29/2017 15:16:26	69979-1.RAW	3:16:26 PM	6042.92	3		6035.4	25.693	10277.117	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	6/29/2017 15:20:34	69980-1.RAW	3:20:34 PM	1205.63			1198.1	5.101	5.101	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	6/29/2017 15:24:42	69981-1.RAW	3:24:42 PM	26.95			19.4	0.083	0.083	ng/L	
Hg2600-3	DM2	SAM	1706301-24	400	6/29/2017 15:28:49	69982-1.RAW	3:28:49 PM	133.63	3		126.1	0.532	212.904	ng/L	
Hg2600-3	DM2	SAM	1706301-25	400	6/29/2017 15:32:58	69983-1.RAW	3:32:58 PM	71.79	3		64.3	0.269	107.570	ng/L	
Hg2600-3	DM2	SAM	1706301-26	400	6/29/2017 15:37:06	69984-1.RAW	3:37:06 PM	173.31	3		165.8	0.701	280.478	ng/L	
Hg2600-3	DM2	SAM	1706301-27	400	6/29/2017 15:41:14	69985-1.RAW	3:41:14 PM	1694.29	3		1686.8	7.177	2870.881	ng/L	
Hg2600-3	DM2	SAM	1706301-28	400	6/29/2017 15:45:23	69986-1.RAW	3:45:23 PM	625.54	3		618.0	2.627	1050.671	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB					Comments
		Type	LabNumber							Correction?	RESP	InitialResult	FinalResult	InitialUnits	
Hg2600-3	DM2	SAM	1706301-29	400	6/29/2017 15:49:31	69987-1.RAW	3:49:31 PM	981.00	3		973.5	4.140	1656.074	ng/L	
Hg2600-3	DM2	SAM	1706301-30	400	6/29/2017 15:53:39	69988-1.RAW	3:53:39 PM	702.42	3		694.9	2.954	1181.615	ng/L	
Hg2600-3	DM2	SAM	F706343-DUPL	400	6/29/2017 15:57:48	69989-1.RAW	3:57:48 PM	1477.56	3		1470.0	6.254	2501.776	ng/L	
Hg2600-3	DM2	SAM	F706343-MS1	400	6/29/2017 16:01:56	69990-1.RAW	4:01:56 PM	4062.68	3		4055.2	17.261	6904.538	ng/L	
Hg2600-3	DM2	SAM	F706343-MSD1	400	6/29/2017 16:06:05	69991-1.RAW	4:06:05 PM	4409.16	3		4401.6	18.737	7494.625	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVA	1	6/29/2017 16:10:13	69992-1.RAW	4:10:13 PM	1185.65			1178.1	5.016	5.016	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	6/29/2017 16:14:22	69993-1.RAW	4:14:22 PM	21.16			13.6	0.058	0.058	ng/L	
Hg2600-3	DM2	SAM	F706343-MS2	400	6/29/2017 16:18:30	69994-1.RAW	4:18:30 PM	4434.58	3		4427.1	18.845	7537.920	ng/L	
Hg2600-3	DM2	SAM	F706343-MSD2	400	6/29/2017 16:22:38	69995-1.RAW	4:22:38 PM	4271.04	3		4263.5	18.148	7259.400	ng/L	
Hg2600-3	DM2	SAM	1706301-24RE1	100	6/29/2017 16:26:47	69996-1.RAW	4:26:47 PM	469.81	3		462.3	1.950	194.960	ng/L	
Hg2600-3	DM2	SAM	1706301-25RE1	50	6/29/2017 16:30:55	69997-1.RAW	4:30:55 PM	428.73	3		421.2	1.756	87.799	ng/L	
Hg2600-3	DM2	SAM	1706301-26RE1	100	6/29/2017 16:35:04	69998-1.RAW	4:35:04 PM	608.68	3		601.2	2.541	254.088	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVB	1	6/29/2017 16:39:12	69999-1.RAW	4:39:12 PM	1157.16			1149.6	4.895	4.895	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBB	1	6/29/2017 16:43:20	70000-1.RAW	4:43:20 PM	25.81			18.3	0.078	0.078	ng/L	
Hg2600-3	DM2	SAM	SNCL 1703872	1	6/29/2017 16:47:29	70001-1.RAW	4:47:29 PM	18.54		X	11.0	0.047	0.047	ng/L	
Hg2600-3	DM2	SAM	CLEAN		6/29/2017 16:50:20	70002-1.RAW	4:50:20 PM	0.91		X	-6.6	-0.028	0.000	ng/L	
Hg2600-3	DM2	SAM	CLEAN		6/29/2017 16:53:12	70003-1.RAW	4:53:12 PM	1.72		X	-5.8	-0.025	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		6/29/2017 16:57:20	70004-1.RAW	4:57:20 PM	14.20		X	6.7	0.028	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		6/29/2017 17:01:28	70005-1.RAW	5:01:28 PM	9.49		X	2.0	0.008	0.000	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVC	1	6/29/2017 17:05:37	70006-1.RAW	5:05:37 PM	1066.59			1059.1	4.509	4.509	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBC	1	6/29/2017 17:09:45	70007-1.RAW	5:09:45 PM	26.08			18.6	0.079	0.079	ng/L	

TotalMercury EPA1631
 Operat: DM
 BlankSi 7.5268
 Calib Eqn: Conc = (Area-7.526
 Run Date: 6/29/2017
 Blank SD: 0.70688715
 Worksh THg2600
 CalibFa 234.86
 Status: QC Warnings:5/QC E
 Run Time: 7:02:06
 Blank RSD%: 9.391564754
 Method ##### R: 1
 R²: 1
 CF SD: 17.17518643
 CF RSD%: 7.312841391
 Descrip THg26003-170629-1

Sample/ID	Location Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean			0.00	1.94					69860-1.RAW	7:04:58	455.48	Clean	OK	1
clean									69861-1.RAW	7:07:49	0.00	Clean	NP	1
ws			7.53	0.01					69862-1.RAW	7:11:58	9.00	Sample	OK	1
ws			7.53	0.01					69863-1.RAW	7:16:06	9.36	Sample	OK	1
ws			7.53	0.00					69864-1.RAW	7:20:15	6.46	Sample	OK	1
SEQ-IBL1	A1	1	0.00	0.03					69865-1.RAW	7:24:23	8.05	Sample	OK	1
SEQ-IBL2	A2	1	0.00	0.03					69866-1.RAW	7:28:31	7.80	Sample	OK	1
SEQ-IBL3	A3	1	0.00	0.03					69867-1.RAW	7:32:40	6.72	Sample	OK	1
SEQ-CAL1	A4	1	7.53	0.55		109.44			69868-1.RAW	7:36:48	136.04	Sample	OK	1
SEQ-CAL2	A5	1	7.53	1.06		106.22			69869-1.RAW	7:40:57	256.99	Sample	OK	1
SEQ-CAL3	A6	1	7.53	4.82		96.41			69870-1.RAW	7:45:05	1139.65	Sample	OK	1
SEQ-CAL4	A7	1	7.53	18.90		94.48			69871-1.RAW	7:49:14	4445.67	Sample	OK	1
SEQ-CAL5	A8	1	7.53	37.38		93.45			69872-1.RAW	7:53:22	8787.15	Sample	FB	1
SEQ-ICV1	A9	1	7.53	4.90		98.01			69873-1.RAW	7:57:31	1158.45	Sample	OK	1
F706597-BLK1	A10	20	7.53	1.53					69874-1.RAW	8:01:39	25.50	Sample	OK	1
F706597-BLK2	A11	20	7.53	0.76					69875-1.RAW	8:05:47	16.47	Sample	OK	1
F706597-BLK3	A12	20	7.53	0.63					69876-1.RAW	8:09:56	14.96	Sample	OK	1
*F706597-BLK4	B1	20	7.53	0.79					69877-1.RAW	8:14:04	16.75	Sample	OK	1
*F706597-BLK5	B2	20	7.53	0.43					69878-1.RAW	8:18:13	12.60	Sample	OK	1
F706597-BS1	B3	20	7.53	91.07					69879-1.RAW	8:22:21	1076.94	Sample	OK	1
F706597-BSD1	B4	20	7.53	93.86					69880-1.RAW	8:26:30	1109.70	Sample	OK	1
F706597-BS2	B5	400	7.53	1978.28					69881-1.RAW	8:30:38	1169.09	Sample	OK	1
1706399-01	B6	100	7.53	4232.78					69882-1.RAW	8:34:47	9948.78	Sample	FB	1
1706399-02	B7	100	7.53	16837.36					69883-1.RAW	8:38:55	39552.32	Sample	FB	1
SEQ-CCV1	B8	1	7.53	5.19		103.74			69884-1.RAW	8:43:03	1225.74	Sample	OK	1
SEQ-CCB1	B9	1	7.53	0.18		0.00			69885-1.RAW	8:47:12	49.77	Sample	OK	1
1706399-03	B10	1000	7.53	9713.43					69886-1.RAW	8:51:20	2288.85	Sample	OK	1
1706399-04	B11	1000	7.53	6258.41					69887-1.RAW	8:55:29	1477.40	Sample	OK	1
1706399-05	B12	1000	7.53	4893.29					69888-1.RAW	8:59:37	1156.78	Sample	OK	1
1706399-06	C1	1000	7.53	5712.07					69889-1.RAW	9:03:46	1349.08	Sample	OK	1
1706399-07	C2	1000	7.53	8630.94					69890-1.RAW	9:07:54	2034.62	Sample	OK	1
1706399-08	C3	1000	7.53	6253.62					69891-1.RAW	9:12:03	1476.27	Sample	OK	1
1706399-09	C4	1000	7.53	7125.20					69892-1.RAW	9:16:11	1680.98	Sample	OK	1
1706399-10	C5	1000	7.53	7451.19					69893-1.RAW	9:20:19	1757.54	Sample	OK	1
1706399-11	C6	1000	7.53	6401.96					69894-1.RAW	9:24:28	1511.11	Sample	OK	1
1706399-12	C7	1000	7.53	8108.85					69895-1.RAW	9:28:36	1912.00	Sample	OK	1
SEQ-CCV2	C8	1	7.53	4.80		96.05			69896-1.RAW	9:32:45	1135.49	Sample	OK	1
SEQ-CCB2	C9	1	7.53	0.06		0.00			69897-1.RAW	9:36:53	21.38	Sample	OK	1
1706399-13	C10	1000	7.53	7010.67					69898-1.RAW	9:41:02	1654.08	Sample	FB	1
1706399-14	C11	1000	7.53	8110.33					69899-1.RAW	9:45:10	1912.35	Sample	OK	1
1706399-15	C12	1000	7.53	6668.67					69900-1.RAW	9:49:19	1573.75	Sample	OK	1
1706399-16	D1	1000	7.53	8373.83					69901-1.RAW	9:53:27	1974.23	Sample	OK	1
1706399-17	D2	1000	7.53	6484.84					69902-1.RAW	9:57:35	1530.58	Sample	OK	1
1706399-18	D3	1000	7.53	8530.21					69903-1.RAW	10:01:44	2010.96	Sample	OK	1

1706399-19	D4	1000	7.53	3807.52		69904-1.RAW	10:05:52	901.77	Sample	OK	1
1706399-20	D5	1000	7.53	5136.55		69905-1.RAW	10:10:01	1213.91	Sample	OK	1
1706399-01RE1	D6	1000	7.53	5072.53		69906-1.RAW	10:14:09	1198.88	Sample	OK	1
1706399-02RE1	D7	1000	7.53	17034.08		69907-1.RAW	10:18:18	4008.21	Sample	OK	1
SEQ-CCV3	D8	1	7.53	4.84	96.78	69908-1.RAW	10:22:26	1144.06	Sample	OK	1
SEQ-CCB3	D9	1	7.53	0.06	0.00	69909-1.RAW	10:26:34	22.26	Sample	OK	1
F706597-DUP1	D10	1000	7.53	5160.27		69910-1.RAW	10:30:43	1219.48	Sample	OK	1
F706597-MS1	D11	1000	7.53	9152.68	177.33	69911-1.RAW	10:34:51	2157.16	Sample	OK	1
F706597-MSD1	D12	1000	7.53	9076.81		69912-1.RAW	10:39:00	2139.34	Sample	OK	1
F706597-MS2	A1	1000	7.53	10431.87	114.90	69913-1.RAW	10:43:08	2457.59	Sample	OK	1
F706597-MSD2	A2	1000	7.53	11122.60		69914-1.RAW	10:47:17	2619.82	Sample	OK	1
F706342-BLK1	A3	20	7.53	1.72		69915-1.RAW	10:51:25	27.76	Sample	OK	1
F706342-BLK2	A4	20	7.53	0.83		69916-1.RAW	10:55:34	17.31	Sample	OK	1
F706342-BLK3	A5	20	7.53	0.95		69917-1.RAW	10:59:42	18.70	Sample	OK	1
*F706342-BLK4	A6	20	7.53	0.82		69918-1.RAW	11:03:50	17.20	Sample	OK	1
*F706342-BLK5	A7	20	7.53	0.72		69919-1.RAW	11:07:59	16.00	Sample	OK	1
SEQ-CCV4	A8	1	7.53	4.75	95.00	69920-1.RAW	11:12:07	1123.09	Sample	OK	1
SEQ-CCB4	A9	1	7.53	0.03	0.00	69921-1.RAW	11:16:16	15.35	Sample	OK	1
F706342-BS1	A10	20	7.53	95.61		69922-1.RAW	11:20:24	1130.31	Sample	OK	1
F706342-BSD1	A11	20	7.53	92.07		69923-1.RAW	11:24:33	1088.78	Sample	OK	1
F706342-BS2	A12	400	7.53	1960.49		69924-1.RAW	11:28:41	1158.64	Sample	OK	1
1706144-01	B1	100	7.53	4642.01		69925-1.RAW	11:32:50	10909.92	Sample	FB	1
1706144-02	B2	100	7.53	5173.74		69926-1.RAW	11:36:58	12158.74	Sample	FB	1
1706144-03	B3	100	7.53	9721.61		69927-1.RAW	11:41:06	22840.02	Sample	FB	1
1706144-04	B4	100	7.53	2768.54		69928-1.RAW	11:45:15	6509.81	Sample	FB	1
1706144-06	B5	100	7.53	3437.98		69929-1.RAW	11:49:23	8082.09	Sample	OK	1
1706144-08	B6	100	7.53	1703.37		69930-1.RAW	11:53:32	4008.12	Sample	OK	1
1706144-09	B7	100	7.53	3770.83		69931-1.RAW	11:57:40	8863.82	Sample	FB	1
SEQ-CCV5	B8	1	7.53	4.97	99.42	69932-1.RAW	12:01:49	1175.02	Sample	OK	1
SEQ-CCB5	B9	1	7.53	0.12	0.00	69933-1.RAW	12:05:57	36.88	Sample	OK	1
1706144-10	B10	400	7.53	1866.80		69934-1.RAW	12:10:06	1103.63	Sample	OK	1
1706144-12	B11	400	7.53	3818.61		69935-1.RAW	12:14:14	2249.65	Sample	OK	1
1706144-13	B12	400	7.53	11936.26		69936-1.RAW	12:18:23	7016.00	Sample	OK	1
1706144-14	C1	400	7.53	4011.16		69937-1.RAW	12:22:31	2362.71	Sample	FB	1
1706144-15	C2	400	7.53	3352.81		69938-1.RAW	12:26:39	1976.16	Sample	OK	1
1706144-16	C3	400	7.53	3146.14		69939-1.RAW	12:30:48	1854.81	Sample	OK	1
1706144-17	C4	400	7.53	3483.08		69940-1.RAW	12:34:56	2052.65	Sample	FB	1
1706144-18	C5	400	7.53	2940.46		69941-1.RAW	12:39:05	1734.04	Sample	OK	1
1706144-19	C6	400	7.53	3031.81		69942-1.RAW	12:43:13	1787.68	Sample	OK	1
1706144-20	C7	400	7.53	2697.67		69943-1.RAW	12:47:22	1591.49	Sample	OK	1
SEQ-CCV6	C8	1	7.53	4.69	93.85	69944-1.RAW	12:51:30	1109.59	Sample	OK	1
SEQ-CCB6	C9	1	7.53	0.09	0.00	69945-1.RAW	12:55:38	29.26	Sample	OK	1
1706144-21	C10	400	7.53	4492.59		69946-1.RAW	12:59:47	2645.39	Sample	OK	1
1706144-22	C11	400	7.53	3301.34		69947-1.RAW	13:03:55	1945.93	Sample	OK	1
1706144-23	C12	400	7.53	2225.63		69948-1.RAW	13:08:04	1314.32	Sample	OK	1
1706144-01RE1	D1	400	7.53	4721.24		69949-1.RAW	13:12:12	2779.64	Sample	OK	1
1706144-02RE1	D2	400	7.53	5232.74		69950-1.RAW	13:16:21	3079.97	Sample	OK	1
1706144-03RE1	D3	400	7.53	10035.10		69951-1.RAW	13:20:29	5899.72	Sample	FB	1
1706144-04RE1	D4	100	7.53	2721.13		69952-1.RAW	13:24:37	6398.47	Sample	FB	1

F706342-DUP1	D5	400	7.53	5082.26		69953-1.RAW	13:28:46	2991.62	Sample	OK	1
F706342-MS1	D6	400	7.53	9650.18	189.84	69954-1.RAW	13:32:54	5673.71	Sample	FB	1
F706342-MSD1	D7	400	7.53	9834.31		69955-1.RAW	13:37:03	5781.82	Sample	FB	1
SEQ-CCV7	D8	1	7.53	4.98	99.51	69956-1.RAW	13:41:11	1176.08	Sample	OK	1
SEQ-CCB7	D9	1	7.53	0.11	0.00	69957-1.RAW	13:45:20	34.00	Sample	OK	1
F706342-MS2	D10	400	7.53	7441.42	352217.49	69958-1.RAW	13:49:28	4376.82	Sample	FB	1
F706342-MSD2	D11	400	7.53	7291.82		69959-1.RAW	13:53:37	4288.98	Sample	FB	1
F706343-BLK1	D12	20	7.53	2.72		69960-1.RAW	13:57:45	39.52	Sample	OK	1
F706343-BLK2	A1	20	7.53	1.51		69961-1.RAW	14:01:53	25.25	Sample	OK	1
F706343-BLK3	A2	20	7.53	1.38		69962-1.RAW	14:06:02	23.72	Sample	OK	1
F706343-BS1	A3	20	7.53	95.14		69963-1.RAW	14:10:10	1124.79	Sample	OK	1
F706343-BSD1	A4	20	7.53	95.99		69964-1.RAW	14:14:19	1134.71	Sample	OK	1
F706343-BS2	A5	400	7.53	1965.89		69965-1.RAW	14:18:27	1161.82	Sample	OK	1
1706144-24	A6	400	7.53	7395.65		69966-1.RAW	14:22:36	4349.95	Sample	FB	1
1706144-25	A7	400	7.53	2399.79		69967-1.RAW	14:26:44	1416.58	Sample	OK	1
SEQ-CCV8	A8	1	7.53	4.94	98.75	69968-1.RAW	14:30:53	1167.11	Sample	OK	1
SEQ-CCB8	A9	1	7.53	0.05	0.00	69969-1.RAW	14:35:01	19.28	Sample	OK	1
1706144-26	A10	400	7.53	2190.61		69970-1.RAW	14:39:09	1293.76	Sample	OK	1
1706144-27	A11	400	7.53	3460.40		69971-1.RAW	14:43:18	2039.33	Sample	OK	1
1706144-28	A12	400	7.53	4326.10		69972-1.RAW	14:47:26	2547.63	Sample	OK	1
1706144-29	B1	400	7.53	2605.63		69973-1.RAW	14:51:35	1537.44	Sample	OK	1
1706144-30	B2	400	7.53	2477.55		69974-1.RAW	14:55:43	1462.24	Sample	OK	1
1706144-31	B3	400	7.53	2578.42		69975-1.RAW	14:59:52	1521.47	Sample	OK	1
1706144-33	B4	400	7.53	3781.22		69976-1.RAW	15:04:00	2227.70	Sample	OK	1
1706144-34	B5	400	7.53	3464.29		69977-1.RAW	15:08:09	2041.62	Sample	OK	1
1706144-36	B6	400	7.53	6620.33		69978-1.RAW	15:12:17	3894.71	Sample	OK	1
1706144-37	B7	400	7.53	10278.99		69979-1.RAW	15:16:26	6042.92	Sample	OK	1
SEQ-CCV9	B8	1	7.53	5.10	102.03	69980-1.RAW	15:20:34	1205.63	Sample	OK	1
SEQ-CCB9	B9	1	7.53	0.08	0.00	69981-1.RAW	15:24:42	26.95	Sample	OK	1
1706301-24	B10	400	7.53	214.77		69982-1.RAW	15:28:49	133.63	Sample	OK	1
1706301-25	B11	400	7.53	109.44		69983-1.RAW	15:32:58	71.79	Sample	OK	1
1706301-26	B12	400	7.53	282.35		69984-1.RAW	15:37:06	173.31	Sample	OK	1
1706301-27	C1	400	7.53	2872.75		69985-1.RAW	15:41:14	1694.29	Sample	OK	1
1706301-28	C2	400	7.53	1052.54		69986-1.RAW	15:45:23	625.54	Sample	OK	1
1706301-29	C3	400	7.53	1657.94		69987-1.RAW	15:49:31	981.00	Sample	OK	1
1706301-30	C4	400	7.53	1183.49		69988-1.RAW	15:53:39	702.42	Sample	OK	1
F706343-DUP1	C5	400	7.53	2503.65		69989-1.RAW	15:57:48	1477.56	Sample	OK	1
F706343-MS1	C6	400	7.53	6906.41	275.74	69990-1.RAW	16:01:56	4062.68	Sample	FB	1
F706343-MSD1	C7	400	7.53	7496.50		69991-1.RAW	16:06:05	4409.16	Sample	OK	1
SEQ-CCVA	C8	1	7.53	5.02		69992-1.RAW	16:10:13	1185.65	Sample	OK	1
SEQ-CCBA	C9	1	7.53	0.06		69993-1.RAW	16:14:22	21.16	Sample	OK	1
F706343-MS2	C10	400	7.53	7539.79	366355.11	69994-1.RAW	16:18:30	4434.58	Sample	OK	1
F706343-MSD2	C11	400	7.53	7261.27		69995-1.RAW	16:22:38	4271.04	Sample	FB	1
1706301-24RE1	C12	100	7.53	196.83		69996-1.RAW	16:26:47	469.81	Sample	OK	1
1706301-25RE1	D1	50	7.53	89.67		69997-1.RAW	16:30:55	428.73	Sample	OK	1
1706301-26RE1	D2	100	7.53	255.96		69998-1.RAW	16:35:04	608.68	Sample	OK	1
SEQ-CCVB	D4	1	7.53	4.89		69999-1.RAW	16:39:12	1157.16	Sample	OK	1
SEQ-CCBB	D5	1	7.53	0.08		70000-1.RAW	16:43:20	25.81	Sample	OK	1
SNCL 1703872	D6	1	7.53	0.05		70001-1.RAW	16:47:29	18.54	Sample	OK	1

CLEAN			0.00	0.00	70002-1.RAW	16:50:20	0.91 Clean	OK	1
CLEAN			0.00	0.01	70003-1.RAW	16:53:12	1.72 Clean	OK	1
WS			7.53	0.03	70004-1.RAW	16:57:20	14.20 Sample	OK	1
WS			7.53	0.01	70005-1.RAW	17:01:28	9.49 Sample	OK	1
SEQ-CCVC	D7	1	7.53	4.51	70006-1.RAW	17:05:37	1066.59 Sample	OK	1
SEQ-CCBC	D8	1	7.53	0.08	70007-1.RAW	17:09:45	26.08 Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7F30011

PEER-REVIEWED

Instrument: Hg2600-3 ✓

Calibration ID: UNASSIGNED

INITIALS: R 6/30/17
Analyzed: 6/29/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7F30011-IBL1 ✓	QC	1			
7F30011-IBL2 ✓	QC	2			
7F30011-IBL3 ✓	QC	3			
7F30011-CAL1 ✓	QC	4	1702602	✓	
7F30011-CAL2 ✓	QC	5	1702603	✓	
7F30011-CAL3 ✓	QC	6	1702604	✓	
7F30011-CAL4 ✓	QC	7	1702605	✓	
7F30011-CAL5 ✓	QC	8	1702606	✓	
7F30011-ICV1 ✓	QC	9	1703679	✓	
F706597-BLK1 ✓	QC	10			
F706597-BLK2 ✓	QC	11			
F706597-BLK3 ✓	QC	12			
F706597-BLK4 ✓	QC	13			
F706597-BLK5 ✓	QC	14			
F706597-BS1 ✓	QC	15			
F706597-BSD1 ✓	QC	16			
F706597-BS2 ✓	QC	17			
1706399-01 ✓	Hg-CVAFS-T-7030	18			
1706399-02 ✓	Hg-CVAFS-T-7030	19			
7F30011-CCV1 ✓	QC	20	1703679	✓	
7F30011-CCB1 ✓	QC	21			
1706399-03 ✓	Hg-CVAFS-T-7030	22			
1706399-04 ✓	Hg-CVAFS-T-7030	23			
1706399-05 ✓	Hg-CVAFS-T-7030	24			
1706399-06 ✓	Hg-CVAFS-T-7030	25			
1706399-07 ✓	Hg-CVAFS-T-7030	26			
1706399-08 ✓	Hg-CVAFS-T-7030	27			
1706399-09 ✓	Hg-CVAFS-T-7030	28			
1706399-10 ✓	Hg-CVAFS-T-7030	29			
1706399-11 ✓	Hg-CVAFS-T-7030	30			
1706399-12 ✓	Hg-CVAFS-T-7030	31			
7F30011-CCV2 ✓	QC	32	1703679	✓	
7F30011-CCB2 ✓	QC	33			
1706399-13 ✓	Hg-CVAFS-T-7030	34			
1706399-14 ✓	Hg-CVAFS-T-7030	35			

ANALYSIS SEQUENCE

7F30011

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 6/29/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706399-15	Hg-CVAFS-T-7030	36			
1706399-16	Hg-CVAFS-T-7030	37			
1706399-17	Hg-CVAFS-T-7030	38			
1706399-18	Hg-CVAFS-T-7030	39			
1706399-19	Hg-CVAFS-T-7030	40			
1706399-20	Hg-CVAFS-T-7030	41			
1706399-01RE1	Hg-CVAFS-T-7030	42			Added 6/30/2017 by DM2
1706399-02RE1	Hg-CVAFS-T-7030	43			Added 6/30/2017 by DM2
7F30011-CCV3	QC	44	1703679		
7F30011-CCB3	QC	45			
F706597-DUP1	QC	46			
F706597-MS1	QC	47			
F706597-MSD1	QC	48			
F706597-MS2	QC	49			
F706597-MSD2	QC	50			
F706342-BLK1	QC	51			
F706342-BLK2	QC	52			
F706342-BLK3	QC	53			
F706342-BLK4	QC	54			
F706342-BLK5	QC	55			
7F30011-CCV4	QC	56	1703679		
7F30011-CCB4	QC	57			
F706342-BS1	QC	58			
F706342-BSD1	QC	59			
F706342-BS2	QC	60			
1706144-01	Hg-CVAFS-T-7030	61			
1706144-02	Hg-CVAFS-T-7030	62			
1706144-03	Hg-CVAFS-T-7030	63			
1706144-04	Hg-CVAFS-T-7030	64			
1706144-06	Hg-CVAFS-T-7030	65			
1706144-08	Hg-CVAFS-T-7030	66			
1706144-09	Hg-CVAFS-T-7030	67			
7F30011-CCV5	QC	68	1703679		
7F30011-CCB5	QC	69			
1706144-10	Hg-CVAFS-T-7030	70			

Due Date: 7/10/2017

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ANALYSIS SEQUENCE

7F30011

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 6/29/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706144-12 ✓	Hg-CVAFS-T-7030	71			
1706144-13 ✓	Hg-CVAFS-T-7030	72			
1706144-14 ✓	Hg-CVAFS-T-7030	73			
1706144-15 ✓	Hg-CVAFS-T-7030	74			
1706144-16 ✓	Hg-CVAFS-T-7030	75			
1706144-17 ✓	Hg-CVAFS-T-7030	76			
1706144-18 ✓	Hg-CVAFS-T-7030	77			
1706144-19 ✓	Hg-CVAFS-T-7030	78			
1706144-20 ✓	Hg-CVAFS-T-7030	79			
7F30011-CCV6 ✓	QC	80	1703679 ✓		
7F30011-CCB6 ✓	QC	81			
1706144-21 ✓	Hg-CVAFS-T-7030	82			
1706144-22 ✓	Hg-CVAFS-T-7030	83			
1706144-23 ✓	Hg-CVAFS-T-7030	84			
1706144-01RE1 ✓	Hg-CVAFS-T-7030	85			Added 6/30/2017 by DM2
1706144-02RE1 ✓	Hg-CVAFS-T-7030	86			Added 6/30/2017 by DM2
1706144-03RE1 ✓	Hg-CVAFS-T-7030	87			Added 6/30/2017 by DM2
1706144-04RE1 ✓	Hg-CVAFS-T-7030	88			Added 6/30/2017 by DM2
F706342-DUP1 ✓	QC	89			
F706342-MS1 ✓	QC	90			
F706342-MSD1 ✓	QC	91			
7F30011-CCV7 ✓	QC	92	1703679 ✓		
7F30011-CCB7 ✓	QC	93			
F706342-MS2 ✓	QC	94			
F706342-MSD2 ✓	QC	95			
F706343-BLK1 ✓	QC	96			
F706343-BLK2 ✓	QC	97			
F706343-BLK3 ✓	QC	98			
F706343-BS1 ✓	QC	99			
F706343-BSD1 ✓	QC	100			
F706343-BS2 ✓	QC	101			
1706144-24 ✓	Hg-CVAFS-T-7030	102			
1706144-25 ✓	Hg-CVAFS-T-7030	103			
7F30011-CCV8 ✓	QC	104	1703679 ✓		
7F30011-CCB8 ✓	QC	105			

Due Date: 7/10/2017

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ANALYSIS SEQUENCE

7F30011

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 6/29/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706144-26 ✓	Hg-CVAFS-T-7030	106			
1706144-27 ✓	Hg-CVAFS-T-7030	107			
1706144-28 ✓	Hg-CVAFS-T-7030	108			
1706144-29 ✓	Hg-CVAFS-T-7030	109			
1706144-30 ✓	Hg-CVAFS-T-7030	110			
1706144-31 ✓	Hg-CVAFS-T-7030	111			
1706144-33 ✓	Hg-CVAFS-T-7030	112			
1706144-34 ✓	Hg-CVAFS-T-7030	113			
1706144-36 ✓	Hg-CVAFS-T-7030	114			
1706144-37 ✓	Hg-CVAFS-T-7030	115			
7F30011-CCV9 ✓	QC	116	1703679	✓	
7F30011-CCB9 ✓	QC	117			
1706301-24 ✓	Hg-CVAFS-T-7030	118			
1706301-25 ✓	Hg-CVAFS-T-7030	119			
1706301-26 ✓	Hg-CVAFS-T-7030	120			
1706301-27 ✓	Hg-CVAFS-T-7030	121			
1706301-28 ✓	Hg-CVAFS-T-7030	122			
1706301-29 ✓	Hg-CVAFS-T-7030	123			
1706301-30 ✓	Hg-CVAFS-T-7030	124			
F706343-DUP1 ✓	QC	125			
F706343-MS1 ✓	QC	126			
F706343-MSD1 ✓	QC	127			
7F30011-CCVA ✓	QC	128	1703679	✓	
7F30011-CCBA ✓	QC	129			
F706343-MS2 ✓	QC	130			
F706343-MSD2 ✓	QC	131			
1706301-24RE1 ✓	Hg-CVAFS-T-7030	132			Added 6/30/2017 by DM2
1706301-25RE1 ✓	Hg-CVAFS-T-7030	133			Added 6/30/2017 by DM2
1706301-26RE1 ✓	Hg-CVAFS-T-7030	134			Added 6/30/2017 by DM2
7F30011-CCVB ✓	QC	135	1703679	✓	
7F30011-CCBB ✓	QC	136			
7F30011-CCVC ✓	QC	137	1703679	✓	
7F30011-CCBC ✓	QC	138			

ANALYSIS SEQUENCE

7F30011

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 6/29/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Dan Mattem 6/29/17
Samples Loaded By Date

Dan Mattem 6/30/17
Data Processed By Date

PREPARATION BENCH SHEET

F706597

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706597-BLK1	Blank	0.5	40					
F706597-BLK2	Blank	0.5	40					
F706597-BLK3	Blank	0.5	40					
F706597-BLK4	Pre homogen blank 1706399	0.545	40					
F706597-BLK5	Post homogen blank 1706399	0.5295	40					
F706597-BS1	LCS	0.5	40	1702555	40			
F706597-BS2	DORM4	0.2534	40	1605470	253.4			PL 6/30/17
F706597-BSD1	LCS Dup	0.5	40	1702555	40			
F706597-DUP1	Duplicate [1706399-01RE1] ✓	0.5664	40					
F706597-MS1	Matrix Spike [1706399-01RE1] ✓	0.538	40	1701763	200			
F706597-MS2	Matrix Spike [1706399-11]	0.5446	40	1701763	200			
F706597-MSD1	Matrix Spike Dup [1706399-01RE1] ✓	0.5276	40	1701763	200			
F706597-MSD2	Matrix Spike Dup [1706399-11]	0.5476	40	1701763	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	17-Jul-18 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703377	THg Dilute 1% BrCl	
			1703734	3% SnCl2 THg reductant	12-Dec-17 00:00
			1703870	5% BrCl	07-Nov-17 00:00
			1703885	70/30 Digestion Acid	25-Dec-17 00:00

PREPARATION BENCH SHEET

F706597

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706399-01	BO-04_17ET002_060517_EEL_01_WB	0.522	40	QC	-	-	MS/MSD	
1706399-01RE1	BO-04_17ET002_060517_EEL_01_WB	0.522	40	QC	-	-	MS/MSD Added 6/30/2017 by DM2	Added 6/30/2017 by DM2
1706399-02	BO-04_17ET002_060517_EEL_02_WB	0.5152	40	-	-	-		
1706399-02RE1	BO-04_17ET002_060517_EEL_02_WB	0.5152	40	-	-	-	Added 6/30/2017 by DM2	Added 6/30/2017 by DM2
1706399-03	BO-04_17ET002_060517_EEL_03_WB	0.5307	40	-	-	-		
1706399-04	BO-04_17ET003_060517_EEL_04_WB	0.5819	40	-	-	-		
1706399-05	BO-04_17ET004_060517_EEL_05_WB	0.5008	40	-	-	-		
1706399-06	BO-04_17ET005_060517_EEL_06_WB	0.541	40	-	-	-		
1706399-07	BO-04_17ET009_060517_EEL_07_WB	0.5127 0.5371	40 PL 6/30/17	-	-	-		
1706399-08	BO-04_17ET012_060517_EEL_08_WB	0.5127	40	-	-	-		
1706399-09	BO-04_17ET015_060517_EEL_09_WB	0.5881	40	-	-	-		
1706399-10	BO-04_17ET015_060517_EEL_10_WB	0.552	40	-	-	-		
1706399-11	BO-04_17ET015_060517_EEL_11_WB	0.53	40	-	-	-		
1706399-12	BO-04_17ET015_060517_EEL_12_WB	0.5507	40	-	-	-		
1706399-13	BO-04_17ET015_060517_EEL_13_WB	0.5406	40	-	-	-		
1706399-14	BO-04_17ET015_060517_EEL_14_WB	0.5005	40	-	-	-		
1706399-15	BO-04_17ET015_060517_EEL_15_WB	0.5449	40	-	-	-		
1706399-16	BO-04_17ET016_060517_EEL_16_WB	0.5448 0.5548	40 PL 6/20/17	-	-	-		
1706399-17	BO-04_17ET016_060517_EEL_17_WB	0.5265	40	-	-	-		

Due Date: 7/12/2017

PREPARATION BENCH SHEET

F706597

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

1706399-18	BO-04_17ET017_060517_EEL_18_WB	0.5026	40	-	-	-		
1706399-19	BO-04_17ET018_060517_EEL_19_WB	0.5182	40	-	-	-		
1706399-20	BO-04_17ET020_060517_EEL_20_WB	0.5315	40	-	-	-		



PREPARATION BENCH SHEET

2600-3

6/29/17 DM

F706597

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706597-BLK1	Blank	0.5	40					20X
F706597-BLK2	Blank	0.5	40					20X
F706597-BLK3	Blank	0.5	40					20X
F706597-BLK4	Pre homogen blank 1706399	0.545	40					20X
F706597-BLK5	Post homogen blank 1706399	0.5295	40					20X
F706597-BS1	LCS	0.5	40	1702555	40			20X
F706597-BS2	DORM4	0.2534	40	1605470	253			400X
F706597-BSD1	LCS Dup	0.5	40	1702555	40			20X
F706597-DUP1	Duplicate [1706399-01] RE1	0.5664	40					1000X
F706597-MS1	Matrix Spike [1706399-01] RE1	0.538	40	1701763	200			1000X
F706597-MS2	Matrix Spike [1706399-11]	0.5446	40	1701763	200			1000X
F706597-MSD1	Matrix Spike Dup [1706399-01] RE1	0.5276	40	1701763	200			1000X
F706597-MSD2	Matrix Spike Dup [1706399-11]	0.5476	40	1701763	200			1000X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	17-Jul-18 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703870	5% BrCl	07-Nov-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703885	70/30 Digestion Acid	25-Dec-17 00:00

1703734
1703377
1703374
1703182

Due Date: 7/12/2017

PREPARATION BENCH SHEET

2600-3

6/29/17 DM

F706597

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706399-01	BO-04_17ET002_060517_EEL_01_WB	0.522	40	QC	-	-	MS/MSD	1000X → 1000X ✓
1706399-02	BO-04_17ET002_060517_EEL_02_WB	0.5152	40	-	-	-		1000X → 1000X ✓
1706399-03	BO-04_17ET002_060517_EEL_03_WB	0.5307	40	-	-	-		1000X ✓
1706399-04	BO-04_17ET003_060517_EEL_04_WB	0.5819	40	-	-	-		1000X ✓
1706399-05	BO-04_17ET004_060517_EEL_05_WB	0.5008	40	-	-	-		1000X ✓
1706399-06	BO-04_17ET005_060517_EEL_06_WB	0.541	40	-	-	-		1000X ✓
1706399-07	BO-04_17ET009_060517_EEL_07_WB	0.5127	40	-	-	-		1000X ✓
1706399-08	BO-04_17ET012_060517_EEL_08_WB	0.5127	40	-	-	-		1000X ✓
1706399-09	BO-04_17ET015_060517_EEL_09_WB	0.5881	40	-	-	-		1000X ✓
1706399-10	BO-04_17ET015_060517_EEL_10_WB	0.552	40	-	-	-		1000X ✓
1706399-11	BO-04_17ET015_060517_EEL_11_WB	0.53	40	-	-	-		1000X ✓
1706399-12	BO-04_17ET015_060517_EEL_12_WB	0.5507	40	-	-	-		1000X ✓
1706399-13	BO-04_17ET015_060517_EEL_13_WB	0.5406	40	-	-	-		1000X ✓
1706399-14	BO-04_17ET015_060517_EEL_14_WB	0.5005	40	-	-	-		1000X ✓
1706399-15	BO-04_17ET015_060517_EEL_15_WB	0.5449	40	-	-	-		1000X ✓
1706399-16	BO-04_17ET016_060517_EEL_16_WB	0.5448	40	-	-	-		1000X ✓
1706399-17	BO-04_17ET016_060517_EEL_17_WB	0.5265	40	-	-	-		1000X ✓
1706399-18	BO-04_17ET017_060517_EEL_18_WB	0.5026	40	-	-	-		1000X ✓
1706399-19	BO-04_17ET018_060517_EEL_19_WB	0.5182	40	-	-	-		1000X ✓

Due Date: 7/12/2017

PREPARATION BENCH SHEET

2600.3
6/29/17 DM

F706597

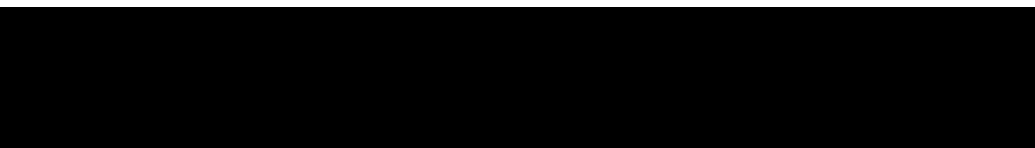
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

1706399-20	BO-04_17ET020_060517_EEL_20_WB	0.5315	40	-	-	-	1000X ✓
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Technician: AMB Batch#: F706597 Date: 6/26/17, digested 6/28/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: 140418015 Calibrated? Yes No
 *Time in: 1430 Actual Temp. (raw): 76.5 °C w/ CF: 76.1 °C
 Time out: 1630 Actual Temp. (raw): 76.0 °C w/ CF: 75.6 °C
 *Time in can't begin before target temperature is reached

Final vol.: 40 mL (LIMS ID: 1703870) Spike vol.: 200 (MS/MSD) µL (LIMS ID: 1701763)
 Spike Witness: ALT 6/28/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 6-26-17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1703885 Dispenser #: 02K2749A Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 00067892 Boiling Chip lot # 1702551 *Hotblock Position: JA

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F706597-BLK1	0.5573	23	F706597-MS2	0.5446	BS2 = DORMA
2	F706597-BLK2	0.5209	24	F706597-MSD2	0.5476	1605470
3	F706597-BLK3	0.5098	25	1706399-12	0.5507	
4	F706597-BLK4	0.5450	26	1706399-13	0.5406	Comments
5	F706597-BLK5	0.5295	27	1706399-14	0.5005	BLK4 + BLK5:
6	F706597-BS1	0.5387	28	1706399-15	0.5449	pre + post
7	F706597-BSD1	0.5739	29	1706399-16	0.5548	homogenization
8	F706597-BS2	0.2534	30	1706399-17	0.5265	blanks for AMB
9	1706399-01	0.5220	31	1706399-18	0.5026	1706399 + 398
10	F706597-DUPI	0.5664	32	1706399-19	0.5182	AMB 6-26-17
11	F706597-MS1	0.5380	33	1706399-20	0.5315	DUPI, MS1, MSD1
12	F706597-MSD1	0.5276	34			SOURCE:
13	1706399-02	0.5152	35			1706399-01
14	1706399-03	0.5307	36			MS2, MSD2
15	1706399-04	0.5819	37			SOURCE:
16	1706399-05	0.5008	38			1706399-11
17	1706399-06	0.5410	39			AMB 6/26/17
18	1706399-07	0.5371	40			BS/BSD
19	1706399-08	0.5127	41			spiked w/ 40 µL
20	1706399-09	0.5881	42			of 100 ng/mL.
21	1706399-10	0.5520	43			LIMS 1702555.
22	1706399-11	0.5300	44			AMB 6/28/17

AMB 6-26-17

PREPARATION BENCH SHEET

F706342

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706342-BLK1	Blank	0.5	40					
F706342-BLK2	Blank	0.5	40					
F706342-BLK3	Blank	0.5	40					
F706342-BLK4	Prep Blank	0.6599	40					
F706342-BLK5	Post Blank	0.6479	40					
F706342-BS1	Blank1 Spike	0.5	40	1702555	40			
F706342-BS2	DORM-4	0.2527	40	1703305	2527	252.7		
F706342-BSD1	Blank1 Spike	0.5	40	1702555	40	DM 2/30/17		
F706342-DUP1	Duplicate [1706144-02RE1] ✓	0.5704	40					
F706342-MS1	Matrix Spike [1706144-02RE1] ✓	0.5578	40	1701763	200			
F706342-MS2	Matrix Spike [1706144-19]	0.5754	40	1701763	200			
F706342-MSD1	Matrix Spike Dup [1706144-02RE1] ✓	0.5775	40	1701763	200			
F706342-MSD2	Matrix Spike Dup [1706144-19]	0.5732	40	1701763	200			

<u>Standard ID(s):</u>	<u>Description:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard
1702555	THg 100ng/mL Primary Spiking Standard
1703305	DORM-4

<u>Expiration:</u>
22-Sep-17 00:00
26-Jul-17 00:00
29-May-20 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>
1702551	Boiling Chips for AFS prep
1703182	25% Hydroxylamine-HCl working solution
1703376	THg Washstation (0.5% BrCl)
1703377	THg Dilute 1% BrCl
1703734	3% SnCl2 THg reductant
1703839	70/30 Digestion Acid
1703870	5% BrCl

<u>Expiration:</u>
31-Dec-17 00:00
24-Nov-17 00:00
03-Oct-17 00:00
12-Dec-17 00:00
23-Dec-17 00:00
07-Nov-17 00:00

PREPARATION BENCH SHEET

F706342

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706144-01	MKT-A-1	0.5986	40	-	-	-		
1706144-01RE1	MKT-A-1	0.5986	40	-	-	-	Added 6/30/2017 by DM2	Added 6/30/2017 by DM2
1706144-02	MKT-A-10	0.5734	40	-	-	-		
1706144-02RE1	MKT-A-10	0.5734	40	-	-	-	Added 6/30/2017 by DM2	Added 6/30/2017 by DM2
1706144-03	MKT-A-11	0.5369	40	-	-	-		
1706144-03RE1	MKT-A-11	0.5369	40	-	-	-	Added 6/30/2017 by DM2	Added 6/30/2017 by DM2
1706144-04	MKT-A-12	0.555	40	-	-	-		
1706144-04RE1	MKT-A-12	0.555	40	-	-	-	Added 6/30/2017 by DM2	Added 6/30/2017 by DM2
1706144-06	MKT-A-14	0.5362	40	-	-	-		
1706144-08	MKT-A-16	0.5655	40	-	-	-		
1706144-09	MKT-A-17	0.5483	40	-	-	-		
1706144-10	MKT-A-18	0.5673	40	-	-	-		
1706144-12	MKT-A-2	0.554	40	-	-	-		
1706144-13	MKT-A-20	0.583	40	-	-	-		
1706144-14	MKT-A-21	0.5378	40	-	-	-		
1706144-15	MKT-A-22	0.5386	40	-	-	-		
1706144-16	MKT-A-23	0.5911	40	-	-	-		
1706144-17	MKT-A-24	0.5832	40	-	-	-		
1706144-18	MKT-A-25	0.5687	40	-	-	-		From F706343 by RN on 26-Jun-17

PREPARATION BENCH SHEET

F706342

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

1706144-19	MKT-A-25-DUP	0.5773	40	-	-	-		From F706343 by RN on 26-Jun-17
1706144-20	MKT-A-26	0.5708	40	-	-	-		From F706343 by RN on 26-Jun-17
1706144-21	MKT-A-27	0.562	40	-	-	-		From F706343 by RN on 26-Jun-17
1706144-22	MKT-A-28	0.5598	40	-	-	-		From F706343 by RN on 26-Jun-17
1706144-23	MKT-A-29	0.5855	40	-	-	-		From F706343 by RN on 26-Jun-17

PREPARATION BENCH SHEET

200.3
6/29/17 DM

F706342

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706342-BLK1	Blank	0.5	40					20X /
F706342-BLK2	Blank	0.5	40					20X /
F706342-BLK3	Blank	0.5	40					20X /
F706342-BLK4	Prep Blank	0.6599	40					20X /
F706342-BLK5	Post Blank	0.6479	40					20X /
F706342-BS1	Blank1 Spike	0.5	40	1702555	40			20X /
F706342-BS2	DORM-4	0.2527	40	1703305	2527			400X /
F706342-BSD1	Blank1 Spike	0.5	40	1702555	40			20X /
F706342-DUP1	Duplicate [1706144-02] RE1	0.5704	40					400X /
F706342-MS1	Matrix Spike [1706144-02] RE1	0.5578	40	1701763	200			400X /
F706342-MS2	Matrix Spike [1706144-19]	0.5754	40	1701763	200			400X /
F706342-MSD1	Matrix Spike Dup [1706144-02] RE1	0.5775	40	1701763	200			400X /
F706342-MSD2	Matrix Spike Dup [1706144-19]	0.5732	40	1701763	200			400X /

Standard ID(s): Description:
 1701763 THg 1,000ng/mL Secondary Spiking Standard
 1702555 THg 100ng/mL Primary Spiking Standard
 1703305 DORM-4

Expiration:
 22-Sep-17 00:00
 26-Jul-17 00:00
 29-May-20 00:00

Reagent ID(s): Description:
 1702551 Boiling Chips for AFS prep
 1703839 70/30 Digestion Acid
 1703870 5% BrCl

Expiration:
 31-Dec-17 00:00
 23-Dec-17 00:00
 07-Nov-17 00:00

1703734
 1703372
 1703377
 1703182

Due Date: 7/10/2017

PREPARATION BENCH SHEET

2600-3
6/29/17 DM

F706342

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706144-01	MKT-A-1	0.5986	40	-	-	-		100X → 400X ✓
1706144-02	MKT-A-10	0.5734	40	-	-	-		100X → 400X ✓
1706144-03	MKT-A-11	0.5369	40	-	-	-		100X → 400X ✓
1706144-04	MKT-A-12	0.555	40	-	-	-		100X → 100X ✓
1706144-06	MKT-A-14	0.5362	40	-	-	-		100X ✓
1706144-08	MKT-A-16	0.5655	40	-	-	-		100X ✓
1706144-09	MKT-A-17	0.5483	40	-	-	-		100X ✓
1706144-10	MKT-A-18	0.5673	40	-	-	-		400X ✓
1706144-12	MKT-A-2	0.554	40	-	-	-		400X ✓
1706144-13	MKT-A-20	0.583	40	-	-	-		400X ✓
1706144-14	MKT-A-21	0.5378	40	-	-	-		400X ✓
1706144-15	MKT-A-22	0.5386	40	-	-	-		400X ✓
1706144-16	MKT-A-23	0.5911	40	-	-	-		400X ✓
1706144-17	MKT-A-24	0.5832	40	-	-	-		400X ✓
1706144-18	MKT-A-25	0.5687	40	-	-	-	400X	From F706343 by RN on 26-Jun-17
1706144-19	MKT-A-25-DUP	0.5773	40	-	-	-	400X	From F706343 by RN on 26-Jun-17
1706144-20	MKT-A-26	0.5708	40	-	-	-	400X	From F706343 by RN on 26-Jun-17
1706144-21	MKT-A-27	0.562	40	-	-	-	400X	From F706343 by RN on 26-Jun-17
1706144-22	MKT-A-28	0.5598	40	-	-	-	400X	From F706343 by RN on 26-Jun-17

Due Date: 7/10/2017

PREPARATION BENCH SHEET

2000-3
6/29/17 DM

F706342

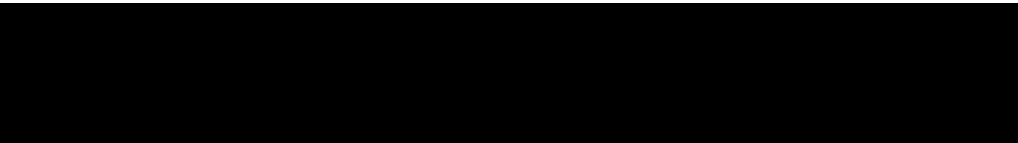
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

1706144-23	MKT-A-29	0.5855	40	-	-	-	100%	From F706343 by RN on 26-Jun-17
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Technician: Dwyer Batch#: F706342 Date: 6-28-17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: 14545 Calibrated? Yes No

*Time in: 14:10 Actual Temp. (raw): 79.0 °C w/ CF: 79.1 °C
 Time out: 16:10 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C

*Time in can't begin before target temperature is reached

Final vol.: 40 mL (LIMS ID: 1703870) Spike vol.: 200 µL (LIMS ID: 1701763)
 Spike Witness: R 6/28/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 6-27-17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1703839 Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 ✓yes
 Glass Vial # 00066592 Boiling Chip lot # 1702551 *Hotblock Position: L-5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F706342-BLK1	0.4947	21	1706144-10	0.5673	B52
2	F706342-BLK2	0.5519	22	1706144-11	0.5673	DOM-4 4ms 1703305
3	F706342-BLK3	0.5329	23	1706144-12	0.5540	
4	F706342-BS1	0.5803	24	1706144-13	0.5830	Comments
5	F706342-BS2	0.2527	25	1706144-14	0.5378	F706342
6	F706342-BSD1	0.5372	26	1706144-15	0.5386	Blank 42 Pre Blank
7	F706342-DUP1 (1706144-02)	0.5704	27	1706144-16	0.5911	Blank 5 / post blank 1706144
8	F706342-MS1 (1706144-02)	0.5578	28	1706144-17	0.5832	1706144-05, 07
9	F706342-MSD1 (1706144-02)	0.5775	29	1706144-18	0.5687	11, 13 samples 2-7 Cancelled 2/25/17 2/25/17 6/28/17
10	F706342-MS2 (1706144-19)	0.5754	30	1706144-19	0.5773	F706342 BS1 B101 = 40µL 1702555
11	F706342-MSD2 (1706144-19)	0.5732	31	1706144-20	0.5708	100µg/mL 6/28/17
12	1706144-01	0.5986	32	1706144-21	0.5620	6/28/17
13	1706144-02	0.5734	33	1706144-22	0.5598	6/28/17
14	1706144-03	0.5369	34	1706144-23	0.5855	1706144-05, 07 11, 13 samples are cancelled. 6/28/17
15	1706144-04	0.5550	35	F706342 Prep Blank	0.6599	
16	1706144-05	0.5362	36	F706342 Post Blank	0.6479	
17	1706144-06	0.5362	37	1706144-21	0.5620	
18	1706144-07	0.5655	38	1706144-22	0.5598	
19	1706144-08	0.5655	39	1706144-23	0.5855	
20	1706144-09	0.5483	40	1706144-24	0.5483	

PREPARATION BENCH SHEET

F706343

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706343-BLK1	Blank	0.5	40					
F706343-BLK2	Blank	0.5	40					
F706343-BLK3	Blank	0.5	40					
F706343-BS1	Blank Spike	0.5	40	1702555	40			
F706343-BS2	DORM-4	0.2542	40	1703305	2542	254.2		
F706343-BSD1	Blank Spike Dup	0.5	40	1702555	40	0.5/0.5/n		
F706343-DUP1	Duplicate [1706144-25] ✓	0.5526	40					
F706343-MS1	Matrix Spike [1706144-25] ✓	0.567	40	1701763	200			
F706343-MS2	Matrix Spike [1706301-27] ✓	0.5796	40	1701763	200			
F706343-MSD1	Matrix Spike Dup [1706144-25] ✓	0.5736	40	1701763	200			
F706343-MSD2	Matrix Spike Dup [1706301-27] ✓	0.5961	40	1701763	200			

<u>Standard ID(s):</u>	<u>Description:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard
1702555	THg 100ng/mL Primary Spiking Standard
1703305	DORM-4

<u>Expiration:</u>
22-Sep-17 00:00
26-Jul-17 00:00
29-May-20 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
1703377	THg Dilute 1% BrCl	
1703734	3% SnCl2 THg reductant	12-Dec-17 00:00
1703839	70/30 Digestion Acid	23-Dec-17 00:00
1703870	5% BrCl	07-Nov-17 00:00

PREPARATION BENCH SHEET

F706343

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706144-24	MKT-A-3	0.5897	40	-	-	-		
1706144-25	MKT-A-30	0.5805	40	-	-	-		
1706144-26	MKT-A-31	0.599	40	-	-	-		
1706144-27	MKT-A-32	0.5902	40	-	-	-		
1706144-28	MKT-A-33	0.5612	40	-	-	-		
1706144-29	MKT-A-4	0.5724	40	-	-	-		
1706144-30	MKT-A-5	0.5386	40	-	-	-		
1706144-31	MKT-A-5-DUP	0.5726	40	-	-	-		
1706144-33	MKT-A-7	0.5578	40	-	-	-		
1706144-34	MKT-A-8	0.5755	40	-	-	-		
1706144-36	MKT-B-1	0.5991	40	-	-	-		
1706144-37	MKT-B-10	0.575	40	-	-	-		
1706301-24	LAWA-B-93	0.5821	40	-	-	-		
1706301-24RE1	LAWA-B-93	0.5821	40	-	-	-	Added 6/30/2017 by DM2	Added 6/30/2017 by DM2
1706301-25	LAWA-B-94	0.5543	40	-	-	-		
1706301-25RE1	LAWA-B-94	0.5543	40	-	-	-	Added 6/30/2017 by DM2	Added 6/30/2017 by DM2
1706301-26	LAWA-B-95	0.5718	40	-	-	-		
1706301-26RE1	LAWA-B-95	0.5718	40	-	-	-	Added 6/30/2017 by DM2	Added 6/30/2017 by DM2
1706301-27	LAWA-B-96	0.5816	40	-	-	-		

Due Date: 7/10/2017

PREPARATION BENCH SHEET

F706343

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

1706301-28	LAWA-B-97	0.544	40	-	-	-		
1706301-29	LAWA-B-98	0.5365	40	-	-	-		
1706301-30	LAWA-B-99	0.5547	40	-	-	-		



PREPARATION BENCH SHEET

2600-3
4/29/17 DM

F706343

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706343-BLK1	Blank	0.5	40					20X
F706343-BLK2	Blank	0.5	40					20X
F706343-BLK3	Blank	0.5	40					20X
F706343-BS1	Blank Spike	0.5	40	1702555	40			20X
F706343-BS2	DORM-4	0.2542	40	1703305	2542			400X
F706343-BSD1	Blank Spike Dup	0.5	40	1702555	40			20X
F706343-DUP1	Duplicate [1706144-25] REI	0.5526	40					400X
F706343-MS1	Matrix Spike [1706144-25] REI	0.567	40	1701763	200			400X
F706343-MS2	Matrix Spike [1706301-27] REI	0.5796	40	1701763	200			400X
F706343-MSD1	Matrix Spike Dup [1706144-25] REI	0.5736	40	1701763	200			400X
F706343-MSD2	Matrix Spike Dup [1706301-27]	0.5961	40	1701763	200			400X

Standard ID(s): Description:
 1701763 THg 1,000ng/mL Secondary Spiking Standard
 1702555 THg 100ng/mL Primary Spiking Standard
 1703305 DORM-4

Expiration:
 22-Sep-17 00:00
 26-Jul-17 00:00
 29-May-20 00:00

Reagent ID(s): Description:
 1702551 Boiling Chips for AFS prep
 1703839 70/30 Digestion Acid
 1703870 5% BrCl

Expiration:
 31-Dec-17 00:00
 23-Dec-17 00:00
 07-Nov-17 00:00

~~DORM-4 50X~~
~~1706144-25 REI~~

1703734
 1703377
 1703376
 1703182

PREPARATION BENCH SHEET

2000-3
4/29/17 DM

F706343

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706144-24	MKT-A-3	0.5897	40	-	-	-		400x
1706144-25	MKT-A-30	0.5805	40	-	-	-		400x
1706144-26	MKT-A-31	0.599	40	-	-	-		400x
1706144-27	MKT-A-32	0.5902	40	-	-	-		400x
1706144-28	MKT-A-33	0.5612	40	-	-	-		400x
1706144-29	MKT-A-4	0.5724	40	-	-	-		400x
1706144-30	MKT-A-5	0.5386	40	-	-	-		400x
1706144-31	MKT-A-5-DUP	0.5726	40	-	-	-		400x
1706144-33	MKT-A-7	0.5578	40	-	-	-		400x
1706144-34	MKT-A-8	0.5755	40	-	-	-		400x
1706144-36	MKT-B-1	0.5991	40	-	-	-		400x
1706144-37	MKT-B-10	0.575	40	-	-	-		400x
1706301-24	LAWA-B-93	0.5821	40	-	-	-		400x → 100x
1706301-25	LAWA-B-94	0.5543	40	-	-	-		400x → 50x
1706301-26	LAWA-B-95	0.5718	40	-	-	-		400x → 100x
1706301-27	LAWA-B-96	0.5816	40	-	-	-		400x
1706301-28	LAWA-B-97	0.544	40	-	-	-		400x
1706301-29	LAWA-B-98	0.5365	40	-	-	-		400x
1706301-30	LAWA-B-99	0.5547	40	-	-	-		400x

PREPARATION BENCH SHEET

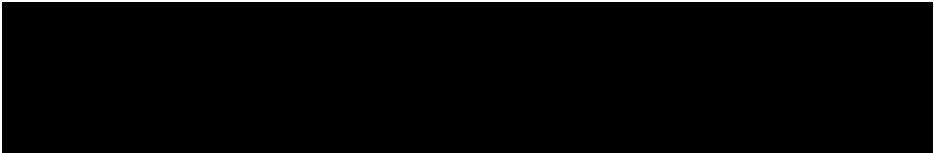
F706343

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/28/2017



Technician: Dwyer Batch#: F706343 Date: 6-28-17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 69 Calibrated? Yes No Therm.#: 14545 Calibrated? Yes No

*Time in: 14:10 Actual Temp. (raw): 79.0 °C w/ CF: 79.1 °C
 Time out: 16:10 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C

*Time in can't begin before target temperature is reached
 Final vol.: 40 mL (LIMS ID: 1703870) Spike vol.: 200 µL (LIMS ID: 1701763)
 Spike Witness: PL 6/28/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 6-27-17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1703885 Dispenser #: 021227494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 00066592 Boiling Chip lot # 1702551 *Hotblock Position: 6.5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F706343-BLK1	0.52188	21	1706144-33	0.5578	BS2 DORT-X
2	F706343-BLK2	0.5010	22	1706144-34	0.5755	1703305
3	F706343-BLK3	0.5693	23	1706144-35		
4	F706343-BS1	0.5536	24	1706144-36	0.5991	Comments
5	F706343-BS2	0.2542	25	1706144-37	0.5750	F706343
6	F706343-BSD1	0.5988	26	1706301-24	0.5821	BS1 BS01
7	F706343-DUP1 (1706144-25)	0.5526	27	1706301-25	0.5543	=40µL 100µg/L
8	F706343-MS1 (1706144-25)	0.5670	28	1706301-26	0.5718	1702555
9	F706343-MSD1 (1706144-25)	0.5736	29	1706301-27	0.5816	6/28/17 1706144-32,35
10	F706343-MS2 (1706301-27)	0.5796	30	1706301-28	0.5440	25 samples are cancelled 6/28/17
11	F706343-MSD2 (1706301-27)	0.5461	31	1706301-29	0.5365	6/29/17
12	1706144-24	0.5897	32	1706301-30	0.5547	
13	1706144-25	0.5805	33	1706144-58	0.5786	
14	1706144-26	0.5990	34			
15	1706144-27	0.5902	35			
16	1706144-28	0.5612	36			6-29-17
17	1706144-29	0.5724	37			vs
18	1706144-30	0.5386	38			
19	1706144-31	0.5726	39			
20	1706144-32		40			

Failing Data Report - 7F30011

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1706399-01	Hg-CVAFS-T-7030 ✓	324	3.83				ng/g						FAIL-OVER	PASS	ε
1706399-02	Hg-CVAFS-T-7030 ✓	1310	3.88				ng/g						FAIL-OVER	PASS	ε
1706144-01	Hg-CVAFS-T-7030 ✓	310	3.34				ng/g						FAIL-OVER	PASS	ε
1706144-02	Hg-CVAFS-T-7030 ✓	361	3.49				ng/g						FAIL-OVER	PASS	ε
1706144-03	Hg-CVAFS-T-7030 ✓	724	3.73				ng/g						FAIL-OVER	PASS	ε

Don M. Mason
 Analyst Reviewed By

6/30/17
 Date

[Signature]
 Peer Reviewed By

6/30/17
 Date

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7F30011
Reviewer:	0 <i>PL 6/30/17</i>	Dataset ID(s):	THG26003-170629-1
Date:	6/30/2017	WO (s) #:	VARIOUS
Batch #(s):	F706597, F706342, F706343		0

Analyst Initials DM Reviewer Initials PL 6/30/17

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: 1706399-01, 02, 1706144-01, 02, 03 HIGH SAMPLES. ABOVE CAL5.
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
 (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
 (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7F30011
Reviewer:	0 <i>PC 6/30/17</i>	Dataset ID(s):	THG26003-170629-1
Date:	6/30/2017	WO (s) #:	VARIOUS
Batch #(s):	F706597, F706342, F706343		0

Analyst Initials DM Reviewer Initials PC 6/30/17

- | | | |
|--|--|-------------------------------------|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | |
| 25. Are re-runs noted with reason? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| <u>Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs</u> | | |
| 36. Date of analyst IDOC/CDOC: <u>11-23-16</u> IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: <u>5-20-16</u> Current SOP revision read? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>5-9-17</u> LOD within last 3 months? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>5-9-17</u> LOQ within last 3 months? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G06014

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *pc* 7/6/17 Analyzed: 7/5/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G06014-IBL1 ✓	QC	1			
7G06014-IBL2 ✓	QC	2			
7G06014-IBL3 ✓	QC	3			
7G06014-CAL1 ✓	QC	4	1702602 ✓		
7G06014-CAL2 ✓	QC	5	1702603 ✓		
7G06014-CAL3 ✓	QC	6	1702604 ✓		
7G06014-CAL4 ✓	QC	7	1702605 ✓		
7G06014-CAL5 ✓	QC	8	1702606 ✓		
7G06014-CAL6 ✓	QC	9	1702603 ✓		
7G06014-ICV1 ✓	QC	10	1703679 ✓		
F706598-BLK1 ✓	QC	11			
F706598-BLK2 ✓	QC	12			
F706598-BLK3 ✓	QC	13			
F706598-BLK4 ✓	QC	14			
F706598-BLK5 ✓	QC	15			
F706598-BLK6 ✓	QC	16			
F706598-BS1 ✓	QC	17			
F706598-BSD1 ✓	QC	18			
F706598-BS2 ✓	QC	19			
1706398-01 ✓	Hg-CVAFS-T-7030	20			
7G06014-CCV1 ✓	QC	21	1703679 ✓		
7G06014-CCB1 ✓	QC	22			
1706399-21 ✓	Hg-CVAFS-T-7030	23			
1706400-19 ✓	Hg-CVAFS-T-7030	24			
1706400-20 ✓	Hg-CVAFS-T-7030	25			
1706443-01 ✓	Hg-CVAFS-T-7030	26			Scan all data for level IV report
F706598-DUP1 ✓	QC	27			
F706598-MS1 ✓	QC	28			
F706598-MSD1 ✓	QC	29			
7G06014-CCV2 ✓	QC	30	1703679 ✓		
7G06014-CCB2 ✓	QC	31			

pc 7/6/17
 Samples Loaded By _____ Date _____

pc 7/6/17
 Data Processed By _____ Date _____

10 added
 7/5/17
pc

Due Date: 7/12/2017

PREPARATION BENCH SHEET

F706598

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706598-BLK1	Blank	0.25	20					
F706598-BLK2	Blank	0.25	20					
F706598-BLK3	Blank	0.25	20					
F706598-BLK4	Pre homogenization blank 1706400	0.2731	20					
F706598-BLK5	Post homogenization blank 1706400	0.2699	20					
F706598-BLK6	Rinse Blank 1706443	0.2573	20					
F706598-BS1	LCS	0.25	20	1702555	20			
F706598-BS2	DORM4	0.1292	20	1703305	129			
F706598-BSD1	LCS Dup	0.25	20	1702555	20			
F706598-DUP1	Duplicate [1706398-01]	0.2765	20					
F706598-MS1	Matrix Spike [1706398-01]	0.2684	20	1701763	100			
F706598-MSD1	Matrix Spike Dup [1706398-01]	0.2667	20	1701763	100			

<u>Standard ID(s):</u>	<u>Description:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard
1702555	THg 100ng/mL Primary Spiking Standard
1703305	DORM-4

<u>Expiration:</u>
22-Sep-17 00:00
26-Jul-17 00:00
29-May-20 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
1703377	THg Dilute 1% BrCl	
1703873	3% SnCl2 THg reductant	19-Dec-17 00:00
1703885	70/30 Digestion Acid	25-Dec-17 00:00
1703911	5% BrCl	18-Dec-17 00:00

PREPARATION BENCH SHEET

F706598

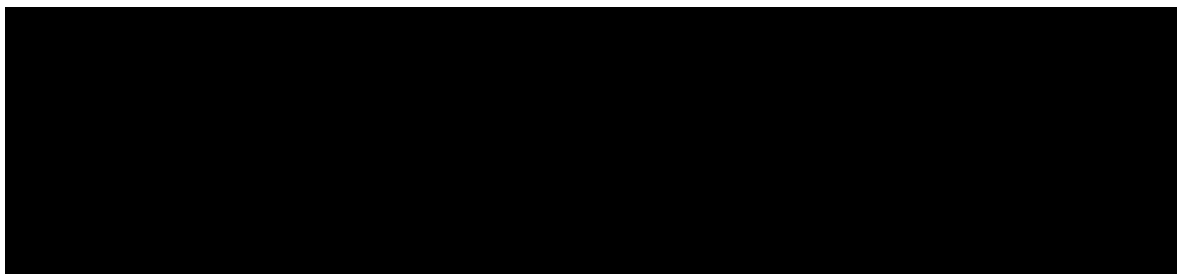
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706398-01	OV-04_17ET015_060917_EEL_01_WB	0.2698	20	QC	-	-	MS/MSD	
1706399-21	HORSESHOE CRAB_060717_EEL_BAIT	0.262	20	-	-	-		
1706400-19	OB-05_17ET141_060617_EEL_19_WB	0.2855	20	-	-	-		
1706400-20	OB-05_17ET141_060617_EEL_20_WB	0.2924	20	-	-	-		
1706443-01	OL-2611-01	0.2559	20	-	-	-	Scan all data for level IV report	



PREPARATION BENCH SHEET

2600.2
BC 7/5/17

F706598

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706598-BLK1	Blank	0.25	20					20X -
F706598-BLK2	Blank	0.25	20					20X -
F706598-BLK3	Blank	0.25	20					20X -
F706598-BLK4	Pre homogenization blank 1706400	0.2731	20					20X -
F706598-BLK5	Post homogenization blank 1706400	0.2699	20					20X -
F706598-BLK6	Rinse Blank 1706443	0.2573	20					20X -
F706598-BS1	LCS	0.25	20	1702555	20			20X -
F706598-BS2	DORM4	0.1292	20	1703305	129			400X -
F706598-BSD1	LCS Dup	0.25	20	1702555	20			20X -
F706598-DUP1	Duplicate [1706398-01]	0.2765	20					400X -
F706598-MS1	Matrix Spike [1706398-01]	0.2684	20	1701763	100			400X -
F706598-MSD1	Matrix Spike Dup [1706398-01]	0.2667	20	1701763	100			400X -

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703885	70/30 Digestion Acid	25-Dec-17 00:00
1703305	DORM-4	29-May-20 00:00	1703911	5% BrCl	18-Dec-17 00:00

1703873
1703370
1703377
1703192

2600-2
BC 7/5/17

PREPARATION BENCH SHEET

F706598

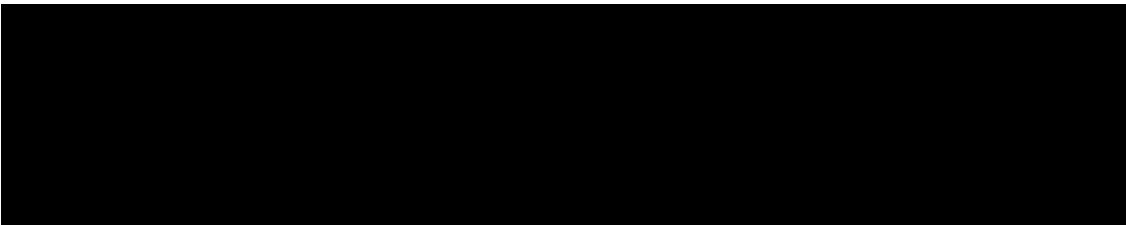
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706398-01	OV-04_17ET015_060917_EEL_01_WB	0.2698	20	QC	-	-	MS/MSD	400X /
1706399-21	HORSESHOE CRAB_060717_EEL_BAIT	0.262	20	-	-	-		400X /
1706400-19	OB-05_17ET141_060617_EEL_19_WB	0.2855	20	-	-	-		400X /
1706400-20	OB-05_17ET141_060617_EEL_20_WB	0.2924	20	-	-	-		400X /
1706443-01	OL-2611-01	0.2559	20	-	-	-	Scan all data for level IV report	100X /



Technician: AMB Batch#: F706598 Date: 6/28/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: 140418015 Calibrated? Yes No
 *Time in: 1825 Actual Temp. (raw): 75.4 °C w/ CF: 74.9 °C 75.0
 Time out: 2025 Actual Temp. (raw): 76.6 °C w/ CF: 75.7 °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1703911) Spike vol.: 100 µL (LIMS ID: 1701763)
 Spike Witness: AMB 6/28/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 6-27-17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1703885 Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 00066804 Boiling Chip lot # 1702551 *Hotblock Position: NZ

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F706598-BLK1	0.2838	23			BS2 = DORMA
2	F706598-BLK2	0.2953	24			
3	F706598-BLK3	0.2633	25			1605470 ^{AMB} 6-28-17
4	F706598-BLK4	0.2731	26			1703305
5	F706598-BLK5	0.2699	27			Comments
6	F706598-BLK6	0.2573	28			BLK4+5: PRE+POST HOMOGEN.
7	F706598-BS1	0.2609	29			BLANKS 1706400.
8	F706598-BSD1	0.2637	30			BLK6: Filter blank for 1706443.
9	F706598-BS2	0.1292	31			DUP1, MS1, MSD1:
10	1706398-01	0.2698	32			1706398-01
11	F706598-MS1	0.2684	33			BS1/BSD1 spiked w/ 20µL of 100 ng/mL
12	F706598-MSD1	0.2667	34			
13	F706598-DUP1	0.2705	35			LIMS: 1702555
14	1706399-21	0.2620	36			Digested ~2.5g sample in 20mL vials due to low volume on sample 1706398-01.
15	1706400-19	0.2855	37			
16	1706400-20	0.2924	38			AMB 6-28-17
17	1706443-01	0.2559	39			
18			40			
19			41			
20			42			
21			43			
22			44			

Failing Data Report - 7G06014

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Beckins 7/6/17
Analyst Reviewed By Date

PLB 7/6/17
Peer Reviewed By Date



Frontier Global Sciences

THg26002-170705-1

Analysis Datasheet for Total Mercury

Date of Analysis: July 05, 2017

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7G06014, 7G06015, 7G06016

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	148.56 units	297.12	130.54 units	261.08	105.1 %Rec
SEQ-CAL2	0						
SEQ-CAL3	1	5.00 ng/L	1218.97 units	243.79	1200.95 units	240.19	96.7 %Rec
SEQ-CAL4	1	20.00 ng/L	4640.70 units	232.04	4622.68 units	231.13	93.1 %Rec
SEQ-CAL5	1	40.00 ng/L	9404.91 units	235.12	9386.89 units	234.67	94.5 %Rec
SEQ-CAL6	1	1.00 ng/L	292.70 units	292.70	274.68 units	274.68	110.6 %Rec
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF Corr. St Dev RF Corr. RSD CF Uncorr. Mean RF
 248.35 +/- 18.74 7.5% RSD 260.15

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	18.02 units	±1.56	0.07 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.987 ng/L	±0.457
BLK	2	3	15.677 ng/L	±13.543
BLK	3	3	2.713 ng/L	±1.484
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber							Correction?	RESP					
Hg2600-2	BC	CAL	SEQ-IBL1	1	7/5/2017 8:54:35	80283-1.RAW	8:54:35 AM	19.80			1.8	0.007	0.007	ng/L		
Hg2600-2	BC	CAL	SEQ-IBL2	1	7/5/2017 8:58:43	80284-1.RAW	8:58:43 AM	17.35			-0.7	-0.003	-0.003	ng/L		
Hg2600-2	BC	CAL	SEQ-IBL3	1	7/5/2017 9:02:52	80285-1.RAW	9:02:52 AM	16.91			-1.1	-0.004	-0.004	ng/L		
Hg2600-2	BC	CAL	SEQ-CAL1	1	7/5/2017 9:07:00	80286-1.RAW	9:07:00 AM	148.56			130.5	0.526	0.526	ng/L		
Hg2600-2	BC	SAM	*SEQ-CAL2	1	7/5/2017 9:11:08	80287-1.RAW	9:11:08 AM	423.90			X	405.9	1.634	1.634	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	7/5/2017 9:15:17	80288-1.RAW	9:15:17 AM	1218.97				1201.0	4.836	4.836	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	7/5/2017 9:19:25	80289-1.RAW	9:19:25 AM	4640.70				4622.7	18.613	18.613	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	7/5/2017 9:23:34	80290-1.RAW	9:23:34 AM	9404.91				9386.9	37.797	37.797	ng/L	
Hg2600-2	BC	SAM	WS	1	7/5/2017 9:31:45	80292-1.RAW	9:31:45 AM	1399.25			X	1381.2	5.562	0.000	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL6	1	7/5/2017 9:35:54	80293-1.RAW	9:35:54 AM	292.70				274.7	1.106	1.106	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	7/5/2017 9:40:02	80291-2.RAW	9:40:02 AM	1254.27				1236.3	4.978	4.978	ng/L	
Hg2600-2	BC	BLK	F706598-BLK1	20	7/5/2017 9:44:11	80294-1.RAW	9:44:11 AM	36.82	1		18.8	0.076	1.514	ng/L		
Hg2600-2	BC	BLK	F706598-BLK2	20	7/5/2017 9:48:19	80295-1.RAW	9:48:19 AM	26.95	1		8.9	0.036	0.720	ng/L		
Hg2600-2	BC	BLK	F706598-BLK3	20	7/5/2017 9:52:27	80296-1.RAW	9:52:27 AM	27.03	1		9.0	0.036	0.726	ng/L		
Hg2600-2	BC	SAM	*F706598-BLK4	20	7/5/2017 9:56:36	80297-1.RAW	9:56:36 AM	24.53	1		6.5	-0.023	-0.462	ng/L		
Hg2600-2	BC	SAM	*F706598-BLK5	20	7/5/2017 10:00:44	80298-1.RAW	10:00:44 AM	23.07	1		5.1	-0.029	-0.580	ng/L		
Hg2600-2	BC	SAM	*F706598-BLK6	20	7/5/2017 10:04:53	80299-1.RAW	10:04:53 AM	24.32	1		6.3	-0.024	-0.479	ng/L		
Hg2600-2	BC	SAM	F706598-BS1	20	7/5/2017 10:09:01	80300-1.RAW	10:09:01 AM	1206.58	1		1188.6	4.736	94.730	ng/L		
Hg2600-2	BC	SAM	F706598-BSD1	20	7/5/2017 10:13:10	80301-1.RAW	10:13:10 AM	1161.89	1		1143.9	4.557	91.131	ng/L		
Hg2600-2	BC	SAM	F706598-BS2	400	7/5/2017 10:17:18	80302-1.RAW	10:17:18 AM	1416.31	1		1398.3	5.628	2251.130	ng/L		
Hg2600-2	BC	SAM	1706398-01	400	7/5/2017 10:21:26	80303-1.RAW	10:21:26 AM	2578.96	1		2560.9	10.309	4123.720	ng/L		
Hg2600-2	BC	CAL	SEQ-CCV1	1	7/5/2017 10:25:35	80304-1.RAW	10:25:35 AM	1250.33			1232.3	4.962	4.962	ng/L		
Hg2600-2	BC	CAL	SEQ-CCB1	1	7/5/2017 10:29:43	80305-1.RAW	10:29:43 AM	27.91			9.9	0.040	0.040	ng/L		
Hg2600-2	BC	SAM	1706399-21	400	7/5/2017 10:33:52	80306-1.RAW	10:33:52 AM	505.09	1		487.1	1.959	783.499	ng/L		
Hg2600-2	BC	SAM	1706400-19	400	7/5/2017 10:38:00	80307-1.RAW	10:38:00 AM	2704.06	1		2686.0	10.813	4325.209	ng/L		
Hg2600-2	BC	SAM	1706400-20	400	7/5/2017 10:42:08	80308-1.RAW	10:42:08 AM	2021.83	1		2003.8	8.066	3226.394	ng/L		
Hg2600-2	BC	SAM	1706443-01	100	7/5/2017 10:46:17	80309-1.RAW	10:46:17 AM	1626.48	1		1608.5	6.467	646.669	ng/L		
Hg2600-2	BC	SAM	F706598-DUP1	400	7/5/2017 10:50:25	80310-1.RAW	10:50:25 AM	2522.53	1		2504.5	10.082	4032.833	ng/L		
Hg2600-2	BC	SAM	F706598-MS1	400	7/5/2017 10:54:34	80311-1.RAW	10:54:34 AM	5390.11	1		5372.1	21.629	8651.420	ng/L		
Hg2600-2	BC	SAM	F706598-MSD1	400	7/5/2017 10:58:42	80312-1.RAW	10:58:42 AM	5413.33	1		5395.3	21.722	8688.819	ng/L		
Hg2600-2	BC	BLK	F707257-BLK1	100	7/5/2017 11:06:42	80313-1.RAW	11:06:42 AM	95.67	1		77.7	0.313	31.266	ng/L		
Hg2600-2	BC	BLK	F707257-BLK2	100	7/5/2017 11:10:50	80314-1.RAW	11:10:50 AM	40.24	2		22.2	0.089	8.947	ng/L		
Hg2600-2	BC	BLK	F707257-BLK3	100	7/5/2017 11:14:59	80315-1.RAW	11:14:59 AM	34.95	2		16.9	0.068	6.817	ng/L		
Hg2600-2	BC	CAL	SEQ-CCV2	1	7/5/2017 11:19:07	80316-1.RAW	11:19:07 AM	1274.13			1256.1	5.058	5.058	ng/L		
Hg2600-2	BC	CAL	SEQ-CCB2	1	7/5/2017 11:23:16	80317-1.RAW	11:23:16 AM	35.26			17.2	0.069	0.069	ng/L		
Hg2600-2	BC	SAM	F707257-BS1	400	7/5/2017 11:27:24	80318-1.RAW	11:27:24 AM	1182.74	2		1164.7	4.651	1860.247	ng/L		
Hg2600-2	BC	SAM	WS	1	7/5/2017 11:34:14	80320-1.RAW	11:34:14 AM	121.88		X	103.9	0.418	0.000	ng/L		
Hg2600-2	BC	SAM	F707257-BSD1	400	7/5/2017 11:38:22	80319-2.RAW	11:38:22 AM	1152.69	2		1134.7	4.530	1811.848	ng/L		
Hg2600-2	BC	SAM	1706889-01	2500	7/5/2017 11:42:31	80321-1.RAW	11:42:31 AM	5372.26	2		5354.2	21.553	53882.180	ng/L		
Hg2600-2	BC	SAM	1706889-02	2500	7/5/2017 11:46:39	80322-1.RAW	11:46:39 AM	5290.45	2		5272.4	21.223	53058.648	ng/L		
Hg2600-2	BC	SAM	1707031-01	2500	7/5/2017 11:50:49	80323-1.RAW	11:50:49 AM	1322.31	2		1304.3	5.246	13113.812	ng/L		
Hg2600-2	BC	SAM	1707031-02	2500	7/5/2017 11:54:58	80324-1.RAW	11:54:58 AM	1937.56	2		1919.5	7.723	19307.057	ng/L		
Hg2600-2	BC	SAM	1707032-01	2500	7/5/2017 11:59:07	80325-1.RAW	11:59:07 AM	1254.57	2		1236.6	4.973	12431.915	ng/L		
Hg2600-2	BC	SAM	1707032-02	2500	7/5/2017 12:03:16	80326-1.RAW	12:03:16 PM	1373.91	2		1355.9	5.453	13633.238	ng/L		
Hg2600-2	BC	SAM	1707033-01	2500	7/5/2017 12:07:24	80327-1.RAW	12:07:24 PM	994.68	2		976.7	3.926	9815.762	ng/L		
Hg2600-2	BC	SAM	1707033-02	2500	7/5/2017 12:11:33	80328-1.RAW	12:11:33 PM	916.77	2		898.8	3.613	9031.489	ng/L		
Hg2600-2	BC	CAL	SEQ-CCV3	1	7/5/2017 12:15:41	80329-1.RAW	12:15:41 PM	1261.88			1243.9	5.008	5.008	ng/L		
Hg2600-2	BC	CAL	SEQ-CCB3	1	7/5/2017 12:19:50	80330-1.RAW	12:19:50 PM	37.26			19.2	0.077	0.077	ng/L		
Hg2600-2	BC	SAM	1706889-01B	100	7/5/2017 12:23:58	80331-1.RAW	12:23:58 PM	64.34	2		46.3	0.030	2.974	ng/L		
Hg2600-2	BC	SAM	1706889-02B	100	7/5/2017 12:28:06	80332-1.RAW	12:28:06 PM	91.53	2		73.5	0.139	13.922	ng/L		
Hg2600-2	BC	SAM	1707031-01B	100	7/5/2017 12:32:15	80333-1.RAW	12:32:15 PM	36.55	2		18.5	-0.082	-8.216	ng/L		
Hg2600-2	BC	SAM	1707031-02B	100	7/5/2017 12:36:23	80334-1.RAW	12:36:23 PM	49.21	2		31.2	-0.031	-3.118	ng/L		
Hg2600-2	BC	SAM	1707032-01B	100	7/5/2017 12:40:32	80335-1.RAW	12:40:32 PM	61.27	2		43.3	0.017	1.738	ng/L		
Hg2600-2	BC	SAM	1707032-02B	100	7/5/2017 12:44:40	80336-1.RAW	12:44:40 PM	93.10	2		75.1	0.146	14.555	ng/L		
Hg2600-2	BC	SAM	1707033-01B	100	7/5/2017 12:48:48	80337-1.RAW	12:48:48 PM	40.46	2		22.4	-0.066	-6.641	ng/L		
Hg2600-2	BC	SAM	1707033-02B	100	7/5/2017 12:52:57	80338-1.RAW	12:52:57 PM	50.13	2		32.1	-0.027	-2.747	ng/L		
Hg2600-2	BC	SAM	1706889-01C	2500	7/5/2017 12:57:05	80339-1.RAW	12:57:05 PM	5322.01	2		5304.0	21.351	53376.344	ng/L		

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	SAM	1706889-02C	2500	7/5/2017 13:01:14	80340-1.RAW	1:01:14 PM	5084.02	2		5066.0	20.392	50980.644	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	7/5/2017 13:05:23	80341-1.RAW	1:05:23 PM	1313.78			1295.8	5.217	5.217	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	7/5/2017 13:09:33	80342-1.RAW	1:09:33 PM	50.40			32.4	0.130	0.130	ng/L	
Hg2600-2	BC	SAM	1707032-01C	2500	7/5/2017 13:13:41	80343-1.RAW	1:13:41 PM	2792.08	2		2774.1	11.164	27909.087	ng/L	
Hg2600-2	BC	SAM	1707032-02C	2500	7/5/2017 13:17:49	80344-1.RAW	1:17:49 PM	2817.75	2		2799.7	11.267	28167.491	ng/L	
Hg2600-2	BC	SAM	1707033-01C	2500	7/5/2017 13:21:58	80345-1.RAW	1:21:58 PM	2731.70	2		2713.7	10.921	27301.279	ng/L	
Hg2600-2	BC	SAM	1707033-02C	2500	7/5/2017 13:26:06	80346-1.RAW	1:26:06 PM	2736.70	2		2718.7	10.941	27351.611	ng/L	
Hg2600-2	BC	SAM	F707257-DUP1	2500	7/5/2017 13:30:15	80347-1.RAW	1:30:15 PM	1366.77	2		1348.8	5.425	13561.364	ng/L	
Hg2600-2	BC	SAM	F707257-MS1	2500	7/5/2017 13:34:23	80348-1.RAW	1:34:23 PM	6175.25	2		6157.2	24.786	61965.388	ng/L	
Hg2600-2	BC	SAM	F707257-MSD1	2500	7/5/2017 13:38:32	80349-1.RAW	1:38:32 PM	6485.45	2		6467.4	26.035	65087.982	ng/L	
Hg2600-2	BC	SAM	EFGS07654 tv 200ng	400	7/5/2017 13:48:37	80350-1.RAW	1:48:37 PM	3187.73		X	3169.7	12.763	5105.205	ng/L	
Hg2600-2	BC	SAM	EFGS10049 tv 200ng	400	7/5/2017 13:52:46	80351-1.RAW	1:52:46 PM	3172.51		X	3154.5	12.702	5080.691	ng/L	
Hg2600-2	BC	SAM	EFGS07879 tv 200ng	400	7/5/2017 13:56:54	80352-1.RAW	1:56:54 PM	3085.97		X	3068.0	12.353	4941.308	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	7/5/2017 14:01:03	80353-1.RAW	2:01:03 PM	1345.22			1327.2	5.344	5.344	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	7/5/2017 14:05:11	80354-1.RAW	2:05:11 PM	53.60			35.6	0.143	0.143	ng/L	
Hg2600-2	BC	SAM	EFGS07922 tv 200ng	400	7/5/2017 14:09:20	80355-1.RAW	2:09:20 PM	2976.22		X	2958.2	11.911	4764.542	ng/L	
Hg2600-2	BC	BLK	F706635-BLK1	20	7/5/2017 14:13:28	80356-1.RAW	2:13:28 PM	71.80		3 X	53.8	0.217	4.331	ng/L	
Hg2600-2	BC	BLK	F706635-BLK2	20	7/5/2017 14:17:36	80357-1.RAW	2:17:36 PM	47.73		3 X	29.7	0.120	2.393	ng/L	
Hg2600-2	BC	BLK	F706635-BLK3	20	7/5/2017 14:21:45	80358-1.RAW	2:21:45 PM	35.60		3 X	17.6	0.071	1.416	ng/L	
Hg2600-2	BC	SAM	F706635-BS1	20	7/5/2017 14:25:53	80359-1.RAW	2:25:53 PM	1222.48		3 X	1204.5	4.850	96.996	ng/L	
Hg2600-2	BC	SAM	F706635-BSD1	20	7/5/2017 14:30:02	80360-1.RAW	2:30:02 PM	1279.08		3 X	1261.1	5.078	101.555	ng/L	
Hg2600-2	BC	SAM	1706489-01	20	7/5/2017 14:34:10	80361-1.RAW	2:34:10 PM	108.85		3 X	90.8	0.366	7.315	ng/L	
Hg2600-2	BC	SAM	1706489-02	20	7/5/2017 14:38:18	80362-1.RAW	2:38:18 PM	112.85		3 X	94.8	0.382	7.637	ng/L	
Hg2600-2	BC	SAM	1706489-03	20	7/5/2017 14:42:27	80363-1.RAW	2:42:27 PM	116.32		3 X	98.3	0.396	7.916	ng/L	
Hg2600-2	BC	SAM	1706489-04	20	7/5/2017 14:46:35	80364-1.RAW	2:46:35 PM	3938.26		3 X	3920.2	15.785	315.701	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	7/5/2017 14:50:44	80365-1.RAW	2:50:44 PM	1294.32			1276.3	5.139	5.139	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	7/5/2017 14:54:52	80366-1.RAW	2:54:52 PM	90.86			72.8	0.293	0.293	ng/L	
Hg2600-2	BC	SAM	1706489-05	20	7/5/2017 14:59:02	80367-1.RAW	2:59:02 PM	379.86		3 X	361.8	1.457	29.139	ng/L	
Hg2600-2	BC	SAM	1706489-13	20	7/5/2017 15:03:10	80368-1.RAW	3:03:10 PM	654.13		3 X	636.1	2.561	51.227	ng/L	
Hg2600-2	BC	SAM	1706489-14	20	7/5/2017 15:07:18	80369-1.RAW	3:07:18 PM	7543.72		3 X	7525.7	30.303	606.053	ng/L	
Hg2600-2	BC	SAM	1706489-15	20	7/5/2017 15:11:27	80370-1.RAW	3:11:27 PM	230.61		3 X	212.6	0.856	17.120	ng/L	
Hg2600-2	BC	SAM	1706489-19	20	7/5/2017 15:15:35	80371-1.RAW	3:15:35 PM	693.39		3 X	675.4	2.719	54.388	ng/L	
Hg2600-2	BC	SAM	F706635-DUP1	20	7/5/2017 15:19:44	80372-1.RAW	3:19:44 PM	122.85		3 X	104.8	0.422	8.442	ng/L	
Hg2600-2	BC	SAM	F706635-MS1	400	7/5/2017 15:23:52	80373-1.RAW	3:23:52 PM	3272.91		3 X	3254.9	13.106	5242.398	ng/L	
Hg2600-2	BC	SAM	F706635-MSD1	400	7/5/2017 15:28:00	80374-1.RAW	3:28:00 PM	3209.34		3 X	3191.3	12.850	5140.010	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	7/5/2017 15:32:09	80375-1.RAW	3:32:09 PM	1348.95			1330.9	5.359	5.359	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	7/5/2017 15:36:17	80376-1.RAW	3:36:17 PM	60.34			42.3	0.170	0.170	ng/L	

TotalMercury EPA1631
 Operati 8C
 BlankS: 18.016
 Calib Eqn: Conc = (Area-18.01
 Run Date: 7/5/2017
 Blank SD: 1.556739291
 Worksh THg260(CalibFa 248.35 Status: QC Warnings:9/QC E Run Time: 13:44:28
 Blank RSD%: 8.640954294
 Method #### R: 1 R2: 0.9999
 CF SD: 18.74652292
 CF RSD%: 7.548294776

SampleID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ref)	Flags	RunCount	Comment
Clean				0.00	10.27					80278-1.RAW	8:35:10	2550.14	Clean	OK	1	
clean				0.00	0.03					80279-1.RAW	8:38:01	6.95	Clean	OK	1	
ws				18.02	0.01					80280-1.RAW	8:42:09	20.83	Sample	OK	1	
ws				18.02	0.00					80281-1.RAW	8:46:18	16.51	Sample	OK	1	
ws				18.02	0.01					80282-1.RAW	8:50:26	21.25	Sample	OK	1	
SEQ-IBL1	A1		1	0.00	0.08					80283-1.RAW	8:54:35	19.80	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.07					80284-1.RAW	8:58:43	17.35	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.07					80285-1.RAW	9:02:52	16.91	Sample	OK	1	
SEQ-CAL1	A4		1	18.02	0.53			105.13		80286-1.RAW	9:07:00	148.56	Sample	OK	1	
*SEQ-CAL2	A5		1	18.02	1.63			147.81		80287-1.RAW	9:11:08	423.90	Sample	OK	1	
SEQ-CAL3	A6		1	18.02	4.84			96.71		80288-1.RAW	9:15:17	1218.97	Sample	OK	1	
SEQ-CAL4	A7		1	18.02	18.61			93.07		80289-1.RAW	9:19:25	4640.70	Sample	OK	1	
SEQ-CAL5	A8		1	18.02	37.80			94.49		80290-1.RAW	9:23:34	9404.91	Sample	OK	1	
WS				18.02	5.56					80292-1.RAW	9:31:45	1399.25	Sample	OK	1	
SEQ-CAL6	C1		1	18.02	1.11			110.60		80293-1.RAW	9:35:54	292.70	Sample	OK	1	
SEQ-ICV1	A9		1	18.02	4.98			99.56		80291-2.RAW	9:40:02	1254.27	Sample	OK	1	
F706598-BLK1	A10		20	18.02	1.51					80294-1.RAW	9:44:11	36.82	Sample	OK	1	
F706598-BLK2	A11		20	18.02	0.72					80295-1.RAW	9:48:19	26.96	Sample	OK	1	
F706598-BLK3	A12		20	18.02	0.73					80296-1.RAW	9:52:27	27.03	Sample	OK	1	
*F706598-BLK4	A13		20	18.02	0.52					80297-1.RAW	9:56:36	24.53	Sample	OK	1	
*F706598-BLK5	A14		20	18.02	0.41					80298-1.RAW	10:00:44	23.07	Sample	OK	1	
*F706598-BLK6	A15		20	18.02	0.51					80299-1.RAW	10:04:53	24.32	Sample	OK	1	
F706598-BS1	A16		20	18.02	95.71					80300-1.RAW	10:09:01	1206.58	Sample	OK	1	
F706598-BSD1	A17		20	18.02	92.12					80301-1.RAW	10:13:10	1161.89	Sample	OK	1	
F706598-BS2	A18		400	18.02	2252.10					80302-1.RAW	10:17:18	1416.31	Sample	OK	1	
1706398-01	A19		400	18.02	4124.67					80303-1.RAW	10:21:26	2578.96	Sample	OK	1	
SEQ-CCV1	A20		1	18.02	4.96			99.24		80304-1.RAW	10:25:35	1250.33	Sample	OK	1	
SEQ-CCB1	A21		1	18.02	0.04			0.00		80305-1.RAW	10:29:43	27.91	Sample	OK	1	
1706399-21	B1		400	18.02	784.48					80306-1.RAW	10:33:52	505.09	Sample	OK	1	
1706400-19	B2		400	18.02	4326.15					80307-1.RAW	10:38:00	2704.06	Sample	OK	1	
1706400-20	B3		400	18.02	3227.34					80308-1.RAW	10:42:08	2021.83	Sample	OK	1	
1706443-01	B4		100	18.02	647.65					80309-1.RAW	10:46:17	1626.48	Sample	OK	1	
F706598-DUP1	B5		400	18.02	4033.77					80310-1.RAW	10:50:25	2522.53	Sample	OK	1	
F706598-MS1	B6		400	18.02	8652.30			214.44		80311-1.RAW	10:54:34	5390.11	Sample	OK	1	
F706598-MSD1	B7		400	18.02	8689.71					80312-1.RAW	10:58:42	5413.33	Sample	OK	1	
F707257-BLK1	B8		100	18.02	31.27					80313-1.RAW	11:06:42	95.67	Sample	OK	1	
F707257-BLK2	B9		100	18.02	8.95					80314-1.RAW	11:10:50	40.24	Sample	OK	1	
F707257-BLK3	B10		100	18.02	6.82					80315-1.RAW	11:14:59	34.95	Sample	OK	1	
SEQ-CCV2	B11		1	18.02	5.06			101.15		80316-1.RAW	11:19:07	1274.13	Sample	OK	1	
SEQ-CCB2	B12		1	18.02	0.07			0.00		80317-1.RAW	11:23:16	35.26	Sample	OK	1	
F707257-BS1	B13		400	18.02	1875.91					80318-1.RAW	11:27:24	1182.74	Sample	OK	1	
WS				18.02	0.42					80320-1.RAW	11:34:14	121.88	Sample	OK	1	
F707257-BSD1	B14		400	18.02	1827.51					80319-2.RAW	11:38:22	1152.69	Sample	OK	1	started to sample wrong cup
1706889-01	B15		2500	18.02	53897.24					80321-1.RAW	11:42:31	5372.26	Sample	OK	1	
1706889-02	B16		2500	18.02	53073.68					80322-1.RAW	11:46:39	5290.45	Sample	OK	1	
1707031-01	B17		2500	18.02	13129.39					80323-1.RAW	11:50:49	1322.31	Sample	OK	1	
1707031-02	B18		2500	18.02	19322.51					80324-1.RAW	11:54:58	1937.55	Sample	OK	1	
1707032-01	B19		2500	18.02	12447.51					80325-1.RAW	11:59:07	1254.57	Sample	OK	1	
1707032-02	B20		2500	18.02	13648.74					80326-1.RAW	12:03:16	1373.91	Sample	OK	1	
1707033-01	B21		2500	18.02	9831.33					80327-1.RAW	12:07:24	994.68	Sample	OK	1	
1707033-02	C1		2500	18.02	9047.10					80328-1.RAW	12:11:33	916.77	Sample	OK	1	
SEQ-CCV3	C2		1	18.02	5.01			100.17		80329-1.RAW	12:15:41	1261.88	Sample	OK	1	
SEQ-CCB3	C3		1	18.02	0.08			0.00		80330-1.RAW	12:19:50	37.26	Sample	OK	1	
1706889-01B	C4		100	18.02	18.65					80331-1.RAW	12:23:58	64.34	Sample	OK	1	

1706889-02B	C5	100	18.02	29.60		80332-1.RAW	12:28:06	91.53	Sample	OK	1
1707031-01B	C6	100	18.02	7.46		80333-1.RAW	12:32:15	36.55	Sample	OK	1
1707031-02B	C7	100	18.02	12.56		80334-1.RAW	12:36:23	49.21	Sample	OK	1
1707032-01B	C8	100	18.02	17.42		80335-1.RAW	12:40:32	61.27	Sample	OK	1
1707032-02B	C9	100	18.02	30.23		80336-1.RAW	12:44:40	93.10	Sample	OK	1
1707033-01B	C10	100	18.02	9.04		80337-1.RAW	12:48:48	40.46	Sample	OK	1
1707033-02B	C11	100	18.02	12.93		80338-1.RAW	12:52:57	50.13	Sample	OK	1
1706889-01C	C12	2500	18.02	53391.37		80339-1.RAW	12:57:05	5322.01	Sample	OK	1
1706889-02C	C13	2500	18.02	50995.69		80340-1.RAW	13:01:14	5084.02	Sample	OK	1
SEQ-CCV4	C14	1	18.02	5.22	104.35	80341-1.RAW	13:05:23	1313.78	Sample	OK	1
SEQ-CCB4	C15	1	18.02	0.13	0.00	80342-1.RAW	13:09:33	50.40	Sample	OK	1
1707032-01C	C16	2500	18.02	27924.44		80343-1.RAW	13:13:41	2792.08	Sample	OK	1
1707032-02C	C17	2500	18.02	28182.82		80344-1.RAW	13:17:49	2817.75	Sample	OK	1
1707033-01C	C18	2500	18.02	27316.66		80345-1.RAW	13:21:58	2731.70	Sample	OK	1
1707033-02C	C19	2500	18.02	27367.01		80346-1.RAW	13:26:06	2736.70	Sample	OK	1
F707257-DUP1	C20	2500	18.02	13576.88		80347-1.RAW	13:30:15	1366.77	Sample	OK	1
F707257-MS1	C21	2500	18.02	61980.35	456.48	80348-1.RAW	13:34:23	6175.25	Sample	OK	1
F707257-MSD1	A1	2500	18.02	65102.90		80349-1.RAW	13:38:32	6485.45	Sample	OK	1
EFGS07654 tv 2(A2	A2	400	18.02	5105.14		80350-1.RAW	13:48:37	3187.73	Sample	OK	1
EFGS10049 tv 2(A3	A3	400	18.02	5080.63		80351-1.RAW	13:52:46	3172.51	Sample	OK	1
EFGS07879 tv 2(A4	A4	400	18.02	4941.26		80352-1.RAW	13:56:54	3085.97	Sample	OK	1
SEQ-CCV5	A5	1	18.02	5.34	106.88	80353-1.RAW	14:01:03	1345.22	Sample	OK	1
SEQ-CCB5	A6	1	18.02	0.14	0.00	80354-1.RAW	14:05:11	53.60	Sample	OK	1
EFGS07922 tv 2(A7	A7	400	18.02	4764.49		80355-1.RAW	14:09:20	2976.22	Sample	OK	1
F706635-BLK1	A8	20	18.02	4.33		80356-1.RAW	14:13:28	71.80	Sample	OK	1
F706635-BLK2	A9	20	18.02	2.39		80357-1.RAW	14:17:36	47.73	Sample	OK	1
F706635-BLK3	A10	20	18.02	1.42		80358-1.RAW	14:21:45	35.60	Sample	OK	1
F706635-BS1	A11	20	18.02	97.00		80359-1.RAW	14:25:53	1222.48	Sample	OK	1
F706635-BSD1	A12	20	18.02	101.55		80360-1.RAW	14:30:02	1279.08	Sample	OK	1
1706489-01	A13	20	18.02	7.31		80361-1.RAW	14:34:10	108.85	Sample	OK	1
1706489-02	A14	20	18.02	7.64		80362-1.RAW	14:38:18	112.85	Sample	OK	1
1706489-03	A15	20	18.02	7.92		80363-1.RAW	14:42:27	116.32	Sample	OK	1
1706489-04	A16	20	18.02	315.70		80364-1.RAW	14:46:35	3938.26	Sample	OK	1
SEQ-CCV6	A17	1	18.02	5.14	102.78	80365-1.RAW	14:50:44	1294.32	Sample	OK	1
SEQ-CCB6	A18	1	18.02	0.29	0.00	80366-1.RAW	14:54:52	90.86	Sample	OK	1
1706489-05	A19	20	18.02	29.14		80367-1.RAW	14:59:02	379.86	Sample	OK	1
1706489-13	A20	20	18.02	51.23		80368-1.RAW	15:03:10	654.13	Sample	OK	1
1706489-14	A21	20	18.02	606.05		80369-1.RAW	15:07:18	7543.72	Sample	OK	1
1706489-15	B1	20	18.02	17.12		80370-1.RAW	15:11:27	230.61	Sample	OK	1
1706489-19	B2	20	18.02	54.39		80371-1.RAW	15:15:35	693.39	Sample	OK	1
F706635-DUP1	B3	20	18.02	8.44		80372-1.RAW	15:19:44	122.85	Sample	OK	1
F706635-MS1	B4	400	18.02	5242.33	55518.70	80373-1.RAW	15:23:52	3272.91	Sample	OK	1
F706635-MSD1	B5	400	18.02	5139.95		80374-1.RAW	15:28:00	3209.34	Sample	OK	1
SEQ-CCV7	B6	1	18.02	5.36	107.18	80375-1.RAW	15:32:09	1348.95	Sample	OK	1
SEQ-CCB7	B7	1	18.02	0.17	0.00	80376-1.RAW	15:36:17	60.34	Sample	OK	1

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7G06014, 7G06015, 7G06016
Reviewer: <i>R 7/6/17</i>	Dataset ID(s): THg26002-170705-1
Date: 7/6/2017	WO (s) #: VARIOUS
Batch #(s): F707257, F706598, F706635	

• Select the correct preparation method.

Analyte	Prep Method	Matrix
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest Air/Gas
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb HF/HNO3/HCl Digest Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation Water
<input type="checkbox"/> Hg0	NA	NA Water
<input type="checkbox"/> Inorg Hg	NA	NA Water

Analyst Initials: BC **Reviewer Initials:** R 7/6/17

- | | | | |
|---|---|--|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | | | |
| (b) Check 5% of transcription from Instrument print-out and Excel file | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | | | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 50 ml / aliquot = Excel dilution value | | | |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7G06014, 7G06015, 7G06016
Reviewer: 0 <i>R 7/6/17</i>	Dataset ID(s): THg26002-170705-1
Date: 7/6/2017	WO (s) #: VARIOUS
Batch #(s): F707257, F706598, F706635	0

Analyst Initials BC **Reviewer Initials** R 7/6/17

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7G06014, 7G06015, 7G06016
Reviewer: 0 <i>BC 7/6/17</i>	Dataset ID(s): THg26002-170705-1
Date: 7/6/2017	WO (s) #: VARIOUS
Batch #(s): F707257, F706598, F706635	0

Analyst Initials *BC* **Reviewer Initials** *BC 7/6/17*

- | | | | | |
|--|--|-------------------------------|---|-------------------------------------|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| Comments: _____ | | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> | |
| Comments: _____ | | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| Comments: _____ | | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 27. Is the B trap <5% A Traps | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

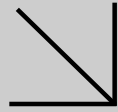
Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | | |
|---|----------------------------------|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ | IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ | Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ | LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ | LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

Supplemental Report 1

The original report has been revised to include the Level IV deliverables package.



WORK ORDER NUMBER: 17-06-1520

The difference is service



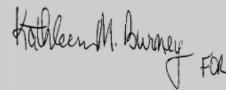
AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Eurofins Frontier Global Sciences, Inc.

Client Project Name: 1706399

Attention: Amy Goodall
11720 North Creek Parkway North
Suite 4
Bothell, WA 98011-8244



Approved for release on 07/13/2017 by:
Carla Hollowell
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Work Order Number: 17-06-1520

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Client Project Name: 1706399
Work Order Number: 17-06-1520

CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received 21 Tissue samples on June 21, 2017. A total of 21 containers were received in good condition and at a temperature of 2.5°C, which is within the recommended temperature criteria of >0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
BO-04_17ET002_060517_EEL_01_WB	17-06-1520-1	06/05/17 09:48	06/21/17 10:30
BO-04_17ET002_060517_EEL_02_WB	17-06-1520-2	06/05/17 09:48	06/21/17 10:30
BO-04_17ET002_060517_EEL_03_WB	17-06-1520-3	06/05/17 09:48	06/21/17 10:30
BO-04_17ET003_060517_EEL_04_WB	17-06-1520-4	06/05/17 09:53	06/21/17 10:30
BO-04_17ET004_060517_EEL_05_WB	17-06-1520-5	06/05/17 09:57	06/21/17 10:30
BO-04_17ET005_060517_EEL_06_WB	17-06-1520-6	06/05/17 10:01	06/21/17 10:30
BO-04_17ET009_060517_EEL_07_WB	17-06-1520-7	06/05/17 10:10	06/21/17 10:30
BO-04_17ET012_060517_EEL_08_WB	17-06-1520-8	06/05/17 10:18	06/21/17 10:30
BO-04_17ET015_060517_EEL_09_WB	17-06-1520-9	06/05/17 10:51	06/21/17 10:30
BO-04_17ET015_060517_EEL_10_WB	17-06-1520-10	06/05/17 10:51	06/21/17 10:30
BO-04_17ET015_060517_EEL_11_WB	17-06-1520-11	06/05/17 10:51	06/21/17 10:30
BO-04_17ET015_060517_EEL_12_WB	17-06-1520-12	06/05/17 10:51	06/21/17 10:30
BO-04_17ET015_060517_EEL_13_WB	17-06-1520-13	06/05/17 10:51	06/21/17 10:30
BO-04_17ET015_060517_EEL_14_WB	17-06-1520-14	06/05/17 10:51	06/21/17 10:30
BO-04_17ET015_060517_EEL_15_WB	17-06-1520-15	06/05/17 10:51	06/21/17 10:30
BO-04_17ET016_060517_EEL_16_WB	17-06-1520-16	06/05/17 11:00	06/21/17 10:30
BO-04_17ET016_060517_EEL_17_WB	17-06-1520-17	06/05/17 11:00	06/21/17 10:30
BO-04_17ET017_060517_EEL_18_WB	17-06-1520-18	06/05/17 11:08	06/21/17 10:30
BO-04_17ET018_060517_EEL_19_WB	17-06-1520-19	06/05/17 11:13	06/21/17 10:30
BO-04_17ET020_060517_EEL_20_WB	17-06-1520-20	06/05/17 11:19	06/21/17 10:30
HORSESHOE CRAB_060717_EEL_BAIT	17-06-1520-21	06/07/17 10:14	06/21/17 10:30

DATA SUMMARY:

Pursuant to the chain of custody document, the samples were analyzed using the following methodologies:

- % Lipids via MeCl₂ Ext. (NOAA 1993a)

The samples were analyzed within the suggested EPA holding time for the requested methods, unless otherwise noted below.

Sample results were reported in the RL format.

Client Project Name: 1706399
Work Order Number: 17-06-1520

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Manual integrations made to the data will be noted in the following narrative. The initial and amended chromatograms have been included in the data package.

All sample and instrument QC were within acceptance criteria, unless otherwise noted below.

% Lipids via MeCl₂ Ext. (NOAA 1993a):

Samples -1 through -21 were analyzed for % Lipids via MeCl₂ Ext. (NOAA 1993a). The samples were prepared and analyzed on 07/03/17 in batch #s 170703B11 / 170703D11 and 170703B12 / 170703D12.

*Due to limited sample the lab was unable to perform the duplicate analysis on sample-1 however the QC duplicate was performed on sample -12.

Sample and QC:

- QC Batch #s 170703B11 / 170703D11: (Associated with samples -1 through -20)

Sample -12 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

- QC Batch #s 170703B12 / 170703D12: (Associated with sample -21)

A sample from another work order was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

Work Order Narrative

Work Order: 17-06-1520

Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/21/17. They were assigned to Work Order 17-06-1520.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



Calscience

Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order: 17-06-1520
11720 North Creek Parkway North, Suite 4	Project Name: 1706399
Bothell, WA 98011-8244	PO Number:
	Date/Time Received: 06/21/17 10:30
	Number of Containers: 21

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
BO-04_17ET002_060517_EEL_01_WB	17-06-1520-1	06/05/17 09:48	1	Tissue
BO-04_17ET002_060517_EEL_02_WB	17-06-1520-2	06/05/17 09:48	1	Tissue
BO-04_17ET002_060517_EEL_03_WB	17-06-1520-3	06/05/17 09:48	1	Tissue
BO-04_17ET003_060517_EEL_04_WB	17-06-1520-4	06/05/17 09:53	1	Tissue
BO-04_17ET004_060517_EEL_05_WB	17-06-1520-5	06/05/17 09:57	1	Tissue
BO-04_17ET005_060517_EEL_06_WB	17-06-1520-6	06/05/17 10:01	1	Tissue
BO-04_17ET009_060517_EEL_07_WB	17-06-1520-7	06/05/17 10:10	1	Tissue
BO-04_17ET012_060517_EEL_08_WB	17-06-1520-8	06/05/17 10:18	1	Tissue
BO-04_17ET015_060517_EEL_09_WB	17-06-1520-9	06/05/17 10:51	1	Tissue
BO-04_17ET015_060517_EEL_10_WB	17-06-1520-10	06/05/17 10:51	1	Tissue
BO-04_17ET015_060517_EEL_11_WB	17-06-1520-11	06/05/17 10:51	1	Tissue
BO-04_17ET015_060517_EEL_12_WB	17-06-1520-12	06/05/17 10:51	1	Tissue
BO-04_17ET015_060517_EEL_13_WB	17-06-1520-13	06/05/17 10:51	1	Tissue
BO-04_17ET015_060517_EEL_14_WB	17-06-1520-14	06/05/17 10:51	1	Tissue
BO-04_17ET015_060517_EEL_15_WB	17-06-1520-15	06/05/17 10:51	1	Tissue
BO-04_17ET016_060517_EEL_16_WB	17-06-1520-16	06/05/17 11:00	1	Tissue
BO-04_17ET016_060517_EEL_17_WB	17-06-1520-17	06/05/17 11:00	1	Tissue
BO-04_17ET017_060517_EEL_18_WB	17-06-1520-18	06/05/17 11:08	1	Tissue
BO-04_17ET018_060517_EEL_19_WB	17-06-1520-19	06/05/17 11:13	1	Tissue
BO-04_17ET020_060517_EEL_20_WB	17-06-1520-20	06/05/17 11:19	1	Tissue
HORSESHOE CRAB_060717_EEL_BAIT	17-06-1520-21	06/07/17 10:14	1	Tissue



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Calscience

Analytical Report

Eurofins Frontier Global Sciences, Inc.
11720 North Creek Parkway North, Suite 4
Bothell, WA 98011-8244

Date Received: 06/21/17
Work Order: 17-06-1520
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)
Units: %

Project: 1706399

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BO-04_17ET002_060517_EEL_01_WB	17-06-1520-1-AA	06/05/17 09:48	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		9.5	0.10		1.00		
BO-04_17ET002_060517_EEL_02_WB	17-06-1520-2-AA	06/05/17 09:48	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		12	0.10		1.00		
BO-04_17ET002_060517_EEL_03_WB	17-06-1520-3-AA	06/05/17 09:48	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		8.8	0.10		1.00		
BO-04_17ET003_060517_EEL_04_WB	17-06-1520-4-AA	06/05/17 09:53	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.2	0.10		1.00		
BO-04_17ET004_060517_EEL_05_WB	17-06-1520-5-AA	06/05/17 09:57	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.4	0.10		1.00		
BO-04_17ET005_060517_EEL_06_WB	17-06-1520-6-AA	06/05/17 10:01	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.3	0.10		1.00		
BO-04_17ET009_060517_EEL_07_WB	17-06-1520-7-AA	06/05/17 10:10	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.1	0.10		1.00		
BO-04_17ET012_060517_EEL_08_WB	17-06-1520-8-AA	06/05/17 10:18	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		6.7	0.10		1.00		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Eurofins Frontier Global Sciences, Inc.
11720 North Creek Parkway North, Suite 4
Bothell, WA 98011-8244

Date Received: 06/21/17
Work Order: 17-06-1520
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)
Units: %

Project: 1706399

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BO-04_17ET015_060517_EEL_09_WB	17-06-1520-9-AA	06/05/17 10:51	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.78	0.10		1.00		
BO-04_17ET015_060517_EEL_10_WB	17-06-1520-10-AA	06/05/17 10:51	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.6	0.10		1.00		
BO-04_17ET015_060517_EEL_11_WB	17-06-1520-11-AA	06/05/17 10:51	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.2	0.10		1.00		
BO-04_17ET015_060517_EEL_12_WB	17-06-1520-12-AA	06/05/17 10:51	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		9.6	0.10		1.00		
BO-04_17ET015_060517_EEL_13_WB	17-06-1520-13-AA	06/05/17 10:51	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.41	0.10		1.00		
BO-04_17ET015_060517_EEL_14_WB	17-06-1520-14-AA	06/05/17 10:51	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		8.6	0.10		1.00		
BO-04_17ET015_060517_EEL_15_WB	17-06-1520-15-AA	06/05/17 10:51	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.9	0.10		1.00		
BO-04_17ET016_060517_EEL_16_WB	17-06-1520-16-AA	06/05/17 11:00	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		7.7	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Eurofins Frontier Global Sciences, Inc.
11720 North Creek Parkway North, Suite 4
Bothell, WA 98011-8244

Date Received: 06/21/17
Work Order: 17-06-1520
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)
Units: %

Project: 1706399

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BO-04_17ET016_060517_EEL_17_WB	17-06-1520-17-AA	06/05/17 11:00	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.2	0.10		1.00		
BO-04_17ET017_060517_EEL_18_WB	17-06-1520-18-AA	06/05/17 11:08	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.4	0.10		1.00		
BO-04_17ET018_060517_EEL_19_WB	17-06-1520-19-AA	06/05/17 11:13	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.70	0.10		1.00		
BO-04_17ET020_060517_EEL_20_WB	17-06-1520-20-AA	06/05/17 11:19	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.0	0.10		1.00		
HORSESHOE CRAB_060717_EEL_BAIT	17-06-1520-21-AA	06/07/17 10:14	Tissue	N/A	07/03/17	07/03/17 00:00	170703B12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.40	0.10		1.00		
Method Blank	099-14-104-177	N/A	Tissue	N/A	07/03/17	07/03/17 00:00	170703B11
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		
Method Blank	099-14-104-178	N/A	Tissue	N/A	07/03/17	07/03/17 00:00	170703B12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.
11720 North Creek Parkway North, Suite 4
Bothell, WA 98011-8244

Date Received: 06/21/17
Work Order: 17-06-1520
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)

Project: 1706399

Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
BO-04_17ET015_060517_EEL_12_WB	Sample	Tissue	N/A	07/03/17 00:00	07/03/17 00:00	170703D11
BO-04_17ET015_060517_EEL_12_WB	Sample Duplicate	Tissue	N/A	07/03/17 00:00	07/03/17 00:00	170703D11

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	9.556	9.352	2	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.
 11720 North Creek Parkway North, Suite 4
 Bothell, WA 98011-8244

Date Received: 06/21/17
 Work Order: 17-06-1520
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)

Project: 1706399

Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
17-06-1521-1	Sample	Tissue	N/A	07/03/17 00:00	07/03/17 00:00	170703D12
17-06-1521-1	Sample Duplicate	Tissue	N/A	07/03/17 00:00	07/03/17 00:00	170703D12

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
% Lipids	2.508	2.296	9	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

Glossary of Terms and Qualifiers

Work Order: 17-06-1520

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.

1706399

17-06-1520

SENDING LABORATORY:

Eurofins Frontier Global Sciences, Inc.
11720 North Creek Parkway North, Suite 400
Bothell, WA 98011
Phone: (425) 686-1996
Fax: (425) 686-3096
Project Manager: Amy Goodall

RECEIVING LABORATORY:

Eurofins Calscience, Inc
7440 Lincoln Way
Garden Grove, CA 92841
Phone :7148955494
Fax: x

Analysis **Comments**

Sample ID: BO-04_17ET002_060517_EEL_01_WB

EFGS Lab ID: 1706399-01 Matrix: Tissue

Sampled: 05-Jun-17 09:48 Eastern Due: 12-Jul-17 19:00
MS/MSD

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for ool samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.
Homogenization work instructions can be found in D4 as FFSR-P-SP-W111642 (A-C)~~

Containers Supplied:

34_Plastic Bag (C)

Sample ID: BO-04_17ET002_060517_EEL_02_WB

EFGS Lab ID: 1706399-02 Matrix: Tissue

Sampled: 05-Jun-17 09:48 Eastern Due: 12-Jul-17 19:00


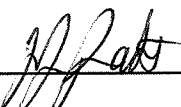

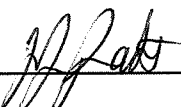
Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for ool samples, Large code for worms and large fish, use Small for blood samples, and medium for everything else.
Homogenization work instructions can be found in D4 as FFSR-P-SP-W111642 (A-C)~~

Containers Supplied:

34_Plastic Bag (C)

	6/20/17		6/21/17
Released By	Date	Received By	Date
	6/20/17		6/21/17 1026030
Released By	Date	Received By	Date

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SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
1706399

1520

Analysis **Comments**

3 Sample ID: BO-04_17ET002_060517_EEL_03_WB

EFGS Lab ID: 1706399-03 Matrix: Tissue

Sampled: 05-Jun-17 09:48 Eastern

Due: 12-Jul-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

For homogenization add X Large code for eel samples, Large code for worms and large fish, Small for blood samples, and Medium for everything else. Homogenization work instructions can be found in D4 as EFSR-P-SP-W111642 (AG)

Containers Supplied:

34_Plastic Bag (C)

4 Sample ID: BO-04_17ET003_060517_EEL_04_WB

EFGS Lab ID: 1706399-04 Matrix: Tissue

Sampled: 05-Jun-17 09:53 Eastern

Due: 12-Jul-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else. Homogenization work instructions can be found in D4 as EFSR-P-SP-W111642 (AG)

Containers Supplied:

34_Plastic Bag (C)

5 Sample ID: BO-04_17ET004_060517_EEL_05_WB

EFGS Lab ID: 1706399-05 Matrix: Tissue

Sampled: 05-Jun-17 09:57 Eastern

Due: 12-Jul-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

For homogenization add X Large code for eel samples, Large code for worms and large fish, Small for blood samples, and Medium for everything else. Homogenization work instructions can be found in D4 as EFSR-P-SP-W111642 (AG)

Containers Supplied:

34_Plastic Bag (C)

Released By

Date

Received By

Date

Released By

Date

Received By

Date

6/20/17

6/20/17

6/21/17 1030

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SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
1706399

1520

Analysis **Comments**

6 Sample ID: BO-04_17ET005_060517_EEL_06_WB

EFGS Lab ID: 1706399-06 Matrix: Tissue

Sampled: 05-Jun-17 10:01 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.
Homogenization work Instructions can be found in D4 of EFSR P. SP. WI11649 (AC)~~

Containers Supplied:

34_Plastic Bag (C)

7 Sample ID: BO-04_17ET009_060517_EEL_07_WB

EFGS Lab ID: 1706399-07 Matrix: Tissue

Sampled: 05-Jun-17 10:10 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.
Homogenization work Instructions can be found in D4 of EFSR P. SP. WI11649 (AC)~~

Containers Supplied:

34_Plastic Bag (C)

✓ Sample ID: BO-04_17ET012_060517_EEL_08_WB

EFGS Lab ID: 1706399-08 Matrix: Tissue

Sampled: 05-Jun-17 10:18 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and medium for everything else.
Homogenization work Instructions can be found in D4 of EFSR P. SP. WI11649 (AC)~~

Containers Supplied:

34_Plastic Bag (C)

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Date

Received By

Date

Return to Contents

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
1706399

1520

Analysis **Comments**

9 Sample ID: BO-04_17ET015_060517_EEL_09_WB

EFGS Lab ID: 1706399-09 Matrix: Tissue

Sampled: 05-Jun-17 10:51 Eastern

Due: 12-Jul-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add N-Large code for eel samples, Large code for worms and large fish, and Small for blood samples, and Medium for everything else.
Homogenization work instructions can be found in D4 as EFSR-P-SP-W111642 (AG)~~

Containers Supplied:

34_Plastic Bag (C)

10 Sample ID: BO-04_17ET015_060517_EEL_10_WB

EFGS Lab ID: 1706399-10 Matrix: Tissue

Sampled: 05-Jun-17 10:51 Eastern

Due: 12-Jul-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add N-Large code for eel samples, Large code for worms and large fish, and Small for blood samples, and Medium for everything else.
Homogenization work instructions can be found in D4 as EFSR-P-SP-W111642 (AG)~~

Containers Supplied:

34_Plastic Bag (C)

11 Sample ID: BO-04_17ET015_060517_EEL_11_WB

EFGS Lab ID: 1706399-11 Matrix: Tissue

Sampled: 05-Jun-17 10:51 Eastern

Due: 12-Jul-17 19:00


Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add N-Large code for eel samples, Large code for worms and large fish, and Small for blood samples, and Medium for everything else.
Homogenization work instructions can be found in D4 as EFSR-P-SP-W111642 (AG)~~


Containers Supplied:

34_Plastic Bag (C)


 6/20/17
Released By Date

Received By

Date

 6/20/17
Released By Date

Received By

 6/21/17 1030
Date

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SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
1706399

1520

Analysis **Comments**

12 Sample ID: BO-04_17ET015_060517_EEL_12_WB

EFGS Lab ID: 1706399-12 Matrix: Tissue

Sampled: 05-Jun-17 10:51 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1 Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.
Homogenization work instructions can be found in D4 as EFGS P-SP-W111642 (AG)~~

Containers Supplied:

34_Plastic Bag (C)

13 Sample ID: BO-04_17ET015_060517_EEL_13_WB

EFGS Lab ID: 1706399-13 Matrix: Tissue

Sampled: 05-Jun-17 10:51 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1 Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.
Homogenization work instructions can be found in D4 as EFGS P-SP-W111642 (AG)~~

Containers Supplied:

34_Plastic Bag (C)

14 Sample ID: BO-04_17ET015_060517_EEL_14_WB

EFGS Lab ID: 1706399-14 Matrix: Tissue

Sampled: 05-Jun-17 10:51 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1 Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.
Homogenization work instructions can be found in D4 as EFGS P-SP-W111642 (AG)~~

Containers Supplied:

34_Plastic Bag (C)

Released By

Date

Received By

Date

Released By

Date

Received By

Date

6/20/17

6/20/17

[Signature]

6/21/17 1030

Return to Contents

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
1706399

1520

Analysis **Comments**

13 Sample ID: BO-04_17ET015_060517_EEL_15_WB

EFGS Lab ID: 1706399-15 Matrix: Tissue

Sampled: 05-Jun-17 10:51 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.
Homogenization work instructions can be found in D4 as EFSR-P-SP-W111642 (AG)~~

Containers Supplied:

34_Plastic Bag (C)

16 Sample ID: BO-04_17ET016_060517_EEL_16_WB

EFGS Lab ID: 1706399-16 Matrix: Tissue

Sampled: 05-Jun-17 11:00 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.
Homogenization work instructions can be found in D4 as EFSR-P-SP-W111642 (AG)~~

Containers Supplied:

34_Plastic Bag (C)

17 Sample ID: BO-04_17ET016_060517_EEL_17_WB

EFGS Lab ID: 1706399-17 Matrix: Tissue

Sampled: 05-Jun-17 11:00 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.
Homogenization work instructions can be found in D4 as EFSR-P-SP-W111642 (AG)~~

Containers Supplied:

34_Plastic Bag (C)

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Date

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Date

6/20/17

6/20/17

1/21/17 1030

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
1706399

1520

Analysis **Comments**

18 Sample ID: BO-04_17ET017_060518_EEL_18_WB

EFGS Lab ID: 1706399-18 Matrix: Tissue

Sampled: 05-Jun-17 11:08 Eastern

Due: 12-Jul-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.
Homogenization work Instructions can be found in D4 as EFSR-P-SP-W111642 (AG)~~

Containers Supplied:

34_Plastic Bag (C)

19 Sample ID: BO-04_17ET018_060518_EEL_19_WB

EFGS Lab ID: 1706399-19 Matrix: Tissue

Sampled: 05-Jun-17 11:13 Eastern

Due: 12-Jul-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.
Homogenization work Instructions can be found in D4 as EFSR-P-SP-W111642 (AG)~~

Containers Supplied:

34_Plastic Bag (C)

20 Sample ID: BO-04_17ET020_060518_EEL_20_WB

EFGS Lab ID: 1706399-20 Matrix: Tissue

Sampled: 05-Jun-17 11:19 Eastern

Due: 12-Jul-17 19:00


Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.
Homogenization work Instructions can be found in D4 as EFSR-P-SP-W111642 (AG)~~

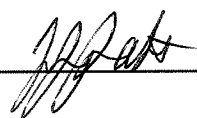
Containers Supplied:

34_Plastic Bag (C)

Released By  6/20/17 Date

Received By _____ Date

Released By  6/20/17 Date

Received By  6/21/17 1030 Date

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SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
1706399

1520

Analysis Comments

2i Sample ID: HORSESHOE CRAB_060717_EEL_BAIT

EFGS Lab ID: 1706399-21 Matrix: Tissue

Sampled: 07-Jun-17 10:14 Eastern

Due: 12-Jul-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add H Large code for cell samples, L large code for worms and large code Small for blood samples, and Medium for everything else.
Homogenization instructions can be found in D4 as EFGS D-CP-INT11912 (1/10)~~

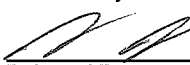
Containers Supplied:

34_Plastic Bag (C)

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 6/20/17
Released By Date

Received By Date

 6/20/17
Released By Date

Received By  6/21/17 1030
Date

FRONT DESK
(425) 686-1996
FRONTIER GLOBAL SCIENCES
11720 N CREEK PKWY N
BOTHELL WA 98011-8244

11 LBS

1 OF 1

DWT: 12,12,12

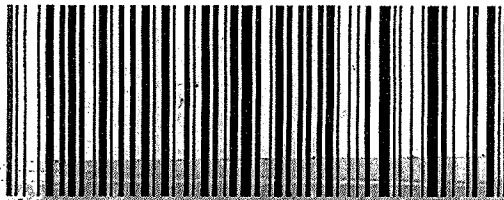
SHIP TO:

SAMPLE RECEIVING
(714) 895-5494
EUROFINS CALSCIENCE, INC.
7440 LINCOLN WAY
GARDEN GROVE CA 92841



UPS NEXT DAY AIR
TRACKING #: 1Z 86W 050 01 5103 9794

1



BILLING: P/P

Dept No.: OVERHEAD
REF 2:Subcontract

WS 20.0.20 Zebra ZF 400 87.0A 04/2017



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1520

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SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: EFGS

DATE: 06 / 21 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 2.5 °C (w/ CF): 2.5 °C; Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____)

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: Air Filter

Checked by: IS

CUSTODY SEAL:

Cooler Present and Intact Present but Not Intact Not Present N/A

Checked by: IS

Sample(s) Present and Intact Present but Not Intact Not Present N/A

Checked by: IOS3

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples Yes No N/A

COC document(s) received complete Yes No N/A

Sampling date Sampling time Matrix Number of containers

No analysis requested Not relinquished No relinquished date No relinquished time

Sampler's name indicated on COC Yes No N/A

Sample container label(s) consistent with COC Yes No N/A

Sample container(s) intact and in good condition Yes No N/A

Proper containers for analyses requested Yes No N/A

Sufficient volume/mass for analyses requested Yes No N/A

Samples received within holding time Yes No N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH Residual Chlorine Dissolved Sulfide Dissolved Oxygen Yes No N/A

Proper preservation chemical(s) noted on COC and/or sample container Yes No N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics Total Metals Dissolved Metals

Container(s) for certain analysis free of headspace Yes No N/A

Volatile Organics Dissolved Gases (RSK-175) Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500) Ferrous Iron (SM 3500) Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation Yes No N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: VOA VOA_h VOA_{na2} 100PJ 100PJ_{na2} 125AGB 125AGB_h 125AGB_p 125PB

125PB_{z_{na}} 250AGB 250CGB 250CGB_s 250PB 250PB_n 500AGB 500AGJ 500AG_J_s

500PB 1AGB 1AGB_{na2} 1AGB_s 1PB 1PB_{na} _____ _____ _____

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® (____) TerraCores® (____) _____

Air: Tedlar™ Canister Sorbent Tube PUF _____ Other Matrix (tissue): 2 _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: IOS3

s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, z_{na} = Zn (CH₃CO₂)₂ + NaOH

Received by: 1017

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Kathleen Burney

From: Amy Goodall
Sent: Wednesday, June 21, 2017 10:56 AM
To: Carla Hollowell; Kathleen Burney
Subject: 1706399 - Sample ID Update, can you update this on your end?
Attachments: 1706399 sub COC.pdf

Hi Carla and Kathy,

We sent the attached samples to you yesterday and they should have arrived this morning.

We had a typo on our end with the sample IDs. Can you update the following;

1706399 -18, -19, and -20 – Please change from 060518 to 060517

Thanks
Amy

Amy Goodall
Senior Project Manager Group Leader



Eurofins Frontier Global Sciences
11720 North Creech Parkway, Suite 100
Bohemia, VA 22011
United States
Direct: 252-252-5577
Main: 252-252-1507
Fax: 252-252-1000

amy.goodall@eurofins.com
www.eurofins.com



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% Lipids via MeCl₂ Ext. (NOAA 1993a)

RAW DATA

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

1 **CLIENT SAMPLE NUMBER:** BO-04_17ET002_060517_EEL_01_WB

LCS/MB BATCH: 170703B11 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	9.51	1.00	9.51	0.10	



RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

2 **CLIENT SAMPLE NUMBER:** BO-04_17ET002_060517_EEL_02_WB

LCS/MB BATCH: 170703B1 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	12.2	1.00	12.2	0.10	

**RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

3 **CLIENT SAMPLE NUMBER: BO-04_17ET002_060517_EEL_03_WB**

<u>LCS/MB BATCH:</u> 170703B11	<u>SAMPLE VOLUME / WEIGHT:</u> DEFAULT: 20.00 g
<u>MS/MSD BATCH:</u> 170703D11	<u>FINAL VOLUME / WEIGHT:</u> DEFAULT: 2.00 ml
<u>UNITS:</u> %	<u>ADJUSTMENT RATIO TO PF:</u> 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	8.76	1.00	8.76	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION : N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

4 **CLIENT SAMPLE NUMBER:** BO-04_17ET003_060517_EEL_04_WB

LCS/MB BATCH: 170703B11 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	1.23	1.00	1.23	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

5 **CLIENT SAMPLE NUMBER:** BO-04_17ET004_060517_EEL_05_WB

LCS/MB BATCH: 170703B11 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.38	1.00	4.38	0.10	

**RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

6 **CLIENT SAMPLE NUMBER:** BO-04_17ET005_060517_EEL_06_WB

LCS/MB BATCH: 170703B11 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	3.25	1.00	3.25	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

7 **CLIENT SAMPLE NUMBER:** BO-04_17ET009_060517_EEL_07_WB

LCS/MB BATCH: 170703B11 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	3.14	1.00	3.14	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

8 **CLIENT SAMPLE NUMBER:** BO-04_17ET012_060517_EEL_08_WB

LCS/MB BATCH: 170703B11 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	6.67	1.00	6.67	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

9 **CLIENT SAMPLE NUMBER:** BO-04_17ET015_060517_EEL_09_WB

LCS/MB BATCH: 170703B11 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.776	1.00	0.776	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

10 **CLIENT SAMPLE NUMBER:** BO-04_17ET015_060517_EEL_10_WB

LCS/MB BATCH: 170703B11 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	2.58	1.00	2.58	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

11 **CLIENT SAMPLE NUMBER:** BO-04_17ET015_060517_EEL_11_WB

LCS/MB BATCH: 170703B11 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	1.23	1.00	1.23	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

12 **CLIENT SAMPLE NUMBER:** BO-04_17ET015_060517_EEL_12_WB

LCS/MB BATCH: 170703B11 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	9.56	1.00	9.56	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

13 CLIENT SAMPLE NUMBER: BO-04_17ET015_060517_EEL_13_WB

LCS/MB BATCH: 170703B11 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.407	1.00	0.407	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

14 **CLIENT SAMPLE NUMBER:** BO-04_17ET015_060517_EEL_14_WB

LCS/MB BATCH: 170703B11 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	8.60	1.00	8.60	0.10	



RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

15 **CLIENT SAMPLE NUMBER:** BO-04_17ET015_060517_EEL_15_WB

LCS/MB BATCH: 170703B11 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	3.94	1.00	3.94	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

16 **CLIENT SAMPLE NUMBER: BO-04_17ET016_060517_EEL_16_WB**

LCS/MB BATCH: 170703B11 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	7.72	1.00	7.72	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

17 **CLIENT SAMPLE NUMBER:** BO-04_17ET016_060517_EEL_17_WB

LCS/MB BATCH: 170703B11 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.18	1.00	4.18	0.10	


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RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

18 **CLIENT SAMPLE NUMBER:** BO-04_17ET017_060517_EEL_18_WB

LCS/MB BATCH: 170703B11 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	1.40	1.00	1.40	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

19 **CLIENT SAMPLE NUMBER:** BO-04_17ET018_060517_EEL_19_WB

LCS/MB BATCH: 170703B11 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.704	1.00	0.704	0.10	

**RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

20 **CLIENT SAMPLE NUMBER: BO-04_17ET020_060517_EEL_20_WB**

LCS/MB BATCH: 170703B11 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g
MS/MSD BATCH: 170703D11 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	2.02	1.00	2.02	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1520
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

21 CLIENT SAMPLE NUMBER: HORSESHOE CRAB_060717_EEL_BAIT

LCS/MB BATCH: 170703B12 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g
MS/MSD BATCH: 170703D12 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.400	1.00	0.400	0.10	

METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

MB SAMPLE ID: 099-14-104-177
MB BATCH ID: 170703B11
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:
MATRIX: Tissue

DATA FILE:

CLIENT WORK ORDER: 17-06-1520

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
1		BO-04_17ET002_060517_EEL_01_	2017-07-03 00:00	WB
2		BO-04_17ET002_060517_EEL_02_	2017-07-03 00:00	WB
3		BO-04_17ET002_060517_EEL_03_	2017-07-03 00:00	WB
4		BO-04_17ET003_060517_EEL_04_	2017-07-03 00:00	WB
5		BO-04_17ET004_060517_EEL_05_	2017-07-03 00:00	WB
6		BO-04_17ET005_060517_EEL_06_	2017-07-03 00:00	WB
7		BO-04_17ET009_060517_EEL_07_	2017-07-03 00:00	WB
8		BO-04_17ET012_060517_EEL_08_	2017-07-03 00:00	WB
9		BO-04_17ET015_060517_EEL_09_	2017-07-03 00:00	WB
10		BO-04_17ET015_060517_EEL_10_	2017-07-03 00:00	WB
11		BO-04_17ET015_060517_EEL_11_	2017-07-03 00:00	WB
12		BO-04_17ET015_060517_EEL_12_	2017-07-03 00:00	WB
13		BO-04_17ET015_060517_EEL_13_	2017-07-03 00:00	WB
14		BO-04_17ET015_060517_EEL_14_	2017-07-03 00:00	WB
15		BO-04_17ET015_060517_EEL_15_	2017-07-03 00:00	WB
16		BO-04_17ET016_060517_EEL_16_	2017-07-03 00:00	WB
17		BO-04_17ET016_060517_EEL_17_	2017-07-03 00:00	WB
18		BO-04_17ET017_060517_EEL_18_	2017-07-03 00:00	WB
19		BO-04_17ET018_060517_EEL_19_	2017-07-03 00:00	WB
20		BO-04_17ET020_060517_EEL_20_	2017-07-03 00:00	WB

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RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

MB **CLIENT SAMPLE NUMBER:** Method Blank

LCS/MB BATCH: 170703B11 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.00600	1.00	ND	0.10	

**DUPLICATE REPORT
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

DUP SAMPLE ID: 17-06-1520-12
DUP BATCH: 170703D11
INSTRUMENTS:
SAMPLE: N/A
DUP SAMPLE: N/A

EXTRACTION: N/A
D/T EXTRACTED:
SAMPLE: 2017-07-03 00:00
DUP SAMPLE: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED:
SAMPLE: 2017-07-03 00:00
DUP SAMPLE: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	9.556	9.352	2	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

MB SAMPLE ID: 099-14-104-178
MB BATCH ID: 170703B12
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:
MATRIX: Tissue

DATA FILE:

CLIENT WORK ORDER: 17-06-1520

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
21	HORSESHOE		2017-07-03 00:00	
		CRAB_060717_EEL_BAIT		

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

MB **CLIENT SAMPLE NUMBER:** Method Blank

LCS/MB BATCH: 170703B12 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.00800	1.00	ND	0.10	

**DUPLICATE REPORT
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

DUP SAMPLE ID: 17-06-1521-1
DUP BATCH: 170703D12
INSTRUMENTS:
SAMPLE: N/A
DUP SAMPLE: N/A

EXTRACTION: N/A
D/T EXTRACTED:
SAMPLE: 2017-07-03 00:00
DUP SAMPLE: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED:
SAMPLE: 2017-07-03 00:00
DUP SAMPLE: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	2.508	2.296	9	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

Lipid Content Raw Data Logbook

REAGENT NAME / ID #		REAGENT NAME / ID #		SUPPLY NAME / ID #		COMMENTS					
1) CH ₂ Cl ₂	S07-71-12	4) Sand	S07-64-18	1) Filter	S07-65-06						
2) C ₆ H ₁₄											
3) Na ₂ SO ₄	S07-65-01										
MATRIX		BATCH NUMBER		COMMENTS							
Tissue		MB:	170703B11	Instructions: 1. ECI ID consists of Work Order Number and Container ID. 2. C = [(M3 - M2) / M1] × (V1 / V2) × 100 3. RPD = Sample% - Duplicate% × 2 / (Sample% + Duplicate%) × 100							
		Sample Dup	170703D11								
Sample	ECI ID #	LIPID CONTENT (%)	RPD %	EXTRACT VOLUME (mL)	BALANCE ID #	TISSUE SAMPLE MASS (g)	WEIGHING DISH MASS (g)	LIPID RESIDUE MASS (g)	LIPID CONTENT (%)	ANALYST	COMMENTS
Duplicate	17-06-1520-12AA	9.556	2.2	COLLECTED (V1)		(M1)	INITIAL (M2)	(M3 - M2)	(C)		
	17-06-1520-12AA	9.352		ANALYZED (V2)			FINAL (M3)				
				CONTROL LIMIT							
7/3/17	MB	5.00	52	1	52	5.00	1.8628	0.0003	0.006	684	
7/3/17	Duplicate	5.00	52	1	52	5.00	1.8709	0.4676	9.352	684	
7/3/17		5.00	52	1	52	5.00	1.8715	0.4778	9.556	684	
7/3/17		5.00	52	1	52	5.00	1.8691	0.4753	9.506	684	
7/3/17		5.00	52	1	52	5.00	1.8755	0.6118	12.236	684	
7/3/17		5.00	52	1	52	5.00	1.8956	0.4379	8.758	684	
7/3/17		4.00	52	1	52	4.00	1.8851	0.0491	1.228	684	
7/3/17		5.00	52	1	52	5.00	1.8698	0.2191	4.382	684	
7/3/17		4.00	52	1	52	4.00	1.8632	0.1301	3.253	684	
7/3/17		5.00	52	1	52	5.00	1.8644	0.1568	3.136	684	
7/3/17		5.00	52	1	52	5.00	1.8778	0.3336	6.672	684	
7/3/17		5.00	52	1	52	5.00	1.8726	0.0388	0.776	684	
7/3/17		5.00	52	1	52	5.00	1.8923	0.1290	2.580	684	
7/3/17		5.00	52	1	52	5.00	1.8853	0.0614	1.228	684	
7/3/17		4.50	52	1	52	4.50	1.8723	0.0183	0.407	684	
7/3/17		4.90	52	1	52	4.90	1.8866	0.4213	8.598	684	
7/3/17		5.00	52	1	52	5.00	1.8418	0.1971	3.942	684	
7/3/17		5.00	52	1	52	5.00	1.8549	0.3862	7.724	684	
7/3/17		5.00	52	1	52	5.00	1.8557	0.2088	4.176	684	
7/3/17		5.00	52	1	52	5.00	1.8541	0.0701	1.402	684	
7/3/17		5.00	52	1	52	5.00	1.8573	0.0352	0.704	684	
7/3/17		5.00	52	1	52	5.00	1.8666	0.1009	2.018	684	

Analysis Method (EPA Method): 608 8081 8082 8141 8310 TO-13 TO-4 Lipids
 8270 (Soil Soil SIM SUPER PAH SIM PAH SIM Pest SIM PCB cong. SIM FL)

Extraction Method (EPA Method): 3510 3520 3540 3541 3545 3550 3580

Analyst ID#: Measuring Sample- 680 Start Extraction- 680 Blow Down- 680 Clean Up-

Matrix: Soil Aqueous Oil Wipe Filter Tissue Air

Balance ID#: 70 Filter ID#: 507-65-06 ASE ID#: Soxtherm ID#: 1-8 Orbit Shaker ID#: Sonicator ID#:

Ext. Start Date/Time: 7/3/17 9:30 Ext. End Date/Time: 7/3/17 12:00

Sand or Wipe ID#: 507-64-18 Drying Agent: Na₂SO₄ Diatomaceous Earth
Drying Agent(s) ID#: 507-65-01

Surrogate Std ID# & Volume Added (mL):
Spike Std ID# & Volume Added (mL): Spike Added to: LCS LCSD MS MSD

Extraction Solvent: MeCl₂ 1:1 Hexane-Acetone 1:1 MeCl₂-Acetone 9:1 Hexane-Diethyl-ether Acetonitrile

Extraction Solvent ID#: 507-71-12 Exchange Solvent (Hexane Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up: 3620 Florisil 3630 SGC 3660 Sulfur 3665 Acid Other Cartridge ID#:

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #:	Sample W (g) / V (mL)		Clean Up Performed	Comments
	Initial	Final		
170703 B11 / D11				
Cel ID#:				
MB	5.0	1	<input type="checkbox"/>	
LCS	/	/	<input type="checkbox"/>	
LCSD	/	/	<input type="checkbox"/>	
MS	/	/	<input type="checkbox"/>	
MSD DUP 17-06-1520-12AA	5.0	1	<input type="checkbox"/>	
17-06-1520-12AA	5.0	1	<input type="checkbox"/>	
-1	5.0	1	<input type="checkbox"/>	
-2	5.0	1	<input type="checkbox"/>	
-3	5.0	1	<input type="checkbox"/>	
-4	4.0	1	<input type="checkbox"/>	
-5	5.0	1	<input type="checkbox"/>	
-6	4.0	1	<input type="checkbox"/>	
-7	5.0	1	<input type="checkbox"/>	
-8	5.0	1	<input type="checkbox"/>	
-9	5.0	1	<input type="checkbox"/>	
-10	5.0	1	<input type="checkbox"/>	
-11	5.0	1	<input type="checkbox"/>	
-13	4.5	1	<input type="checkbox"/>	
-14	4.9	1	<input type="checkbox"/>	
-15	5.0	1	<input type="checkbox"/>	
-16	5.0	1	<input type="checkbox"/>	
-17	5.0	1	<input type="checkbox"/>	
-18	5.0	1	<input type="checkbox"/>	
-19	5.0	1	<input type="checkbox"/>	
-20 AA	5.0	1	<input type="checkbox"/>	

Peer Reviewed by: 684

Peer Reviewed Date: 7/3/17

Revision Date: 10/20/16

BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 07/03/17 Initials: 1134

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (If not passed, note removal or corrective action)
25	1	1.00	0.98 - 1.02	(Y) N	IO Lab
	100	99.92	98.00 - 102.00	(Y) N	
	500	499.68	498.00 - 502.00	(Y) N	
62	0.002	0.0020	0.00180 - 0.00220	(Y) N	IO Lab
	1	0.9994	0.99900 - 1.00100	(Y) N	
	100	99.9953	99.90000 - 100.10000	(Y) N	
26	1	1.00	0.98 - 1.02	(Y) N	IO Lab
	100	99.98	98.00 - 102.00	(Y) N	
55	1	0.99	0.98 - 1.02	(Y) N	IO Lab
	100	99.97	98.00 - 102.00	(Y) N	
	500	499.91	498.00 - 502.00	(Y) N	
11	1	1.00	0.98 - 1.02	(Y) N	IO Lab
	100	100.00	98.00 - 102.00	(Y) N	
66	0.002	0.0019	0.00180 - 0.00220	(Y) N	Metals
	1	0.9996	0.99900 - 1.00100	(Y) N	
	100	99.9995	99.90000 - 100.10000	(Y) N	
53	0.1		0.09 - 0.11	Y N	Extractions fluctuating - marked not in use
	1		0.98 - 1.02	Y N	
	100		98.00 - 102.00	Y N	
	500		498 - 502	Y N	
70	1	1.01	0.98 - 1.02	(Y) N	Extractions
	100	99.82	98.00 - 102.00	(Y) N	
	500	499.18	498.00 - 502.00	(Y) N	
57	100	100.0	98.0-102.0	(Y) N	Extractions
	1000	1000.0	998.0-1002.0	(Y) N	
	2000	2000.0	1998.0-2002.0	(Y) N	
52	0.002	0.0020	0.0018 - 0.0022	(Y) N	Extractions
	1	0.9997	0.9990 - 1.0010	(Y) N	
	100	99.9955	99.9000 - 100.1000	(Y) N	
71	0.002	0.0020	0.0018 - 0.0022	(Y) N	BOD Room
	1	0.9996	0.9990 - 1.0010	(Y) N	
	100	99.9956	99.9000 - 100.1000	(Y) N	
63	0.1	0.10	0.09 - 0.11	(Y) N	BOD Room
	100	99.99	98.00 - 102.00	(Y) N	
64	1	1.01	0.98 - 1.02	(Y) N	Metals Clean Room
	10	10.01	9.8 - 10.2	(Y) N	
	100	100.00	98.00 - 102.00	(Y) N	
72	0.002	0.0021	0.0018 - 0.0022	(Y) N	Oil & Grease Room
	1	0.9995	0.9990 - 1.0010	(Y) N	
	100	100.0005	99.9000 - 100.1000	(Y) N	
30	1	1.01	0.98 - 1.02	(Y) N	Oil & Grease Room
	100	100.03	98.00 - 102.00	(Y) N	

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Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	8330 Surrogate	Restek	31453	A0124792	2/28/02	1 ml	G	4/27/17	zbr	5-16-17	785	
2												
3												
4												
5												
6												
7												
8												
9												
10												
11	Dichloromethane	EMD	DX083FS	57076	4/26/17	200LXZ	DRUM	4/26/17	142	4/26/17	142	
12	Custom PCB	AccuSTD	S-3850-R2	244057126	5/14/24	1 ml	G	4/28/17	zbr			
13												
14	8151 Spike	ChemServ	M-OSM 81501 B99-5ML	5733 800	6/30/18	5 ml	G	5/1/17	zbr	6/22/17	1096	
15												
16												
17												
18	Sand	EMD	51075-30	XH27A	5/2/22	1248X2	P	5/2/17	785	5/2/17	785	
19	SVOC Custom STD	AccuSTD	S-22976	216041571-d1	6/1/19	1 ml	G	5/5/17	zbr	6/15/17	905	Verified
20												
21												
22												
23												
24	Dichloromethane	EMD	DX083FS	57118	5/2/20	200LXZ	DRUM	5/5/17	142	5/5/17	142	
25	Hexane 95%		HX0295CS39	57057	5/15/20	200L						95%

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	Sodium Sulfate Anhydrous	Fisher	S421-10	166736	1/31/22	10kg x 5	P	5/12/17	1109	5/22/17	1109	
2	Sodium Chloride	Fisher	S271-10	163664	1/31/22	10kg x 2	P	5/22/17	928	5/22/17	928	
3	Sodium chloride	Fisher	S271-10	163535	5-23-22	10kg x 5	P	5-23-17	785	5-23-17	785	
4	Acetonitrile	Fisher	A 998-4	165380	5-23-20	4L x 3	G	5-23-17	288	5-23-17	785	
5	↓	↓	↓	102849	↓	4L x 3	G	5-23-17	↓	↓	↓	
6	Filter paper 18.5cm	Fisher	09-790-14F	A 1003602	NA	100 sheets x 3	P	5-23-17	785	5-23-17	785	
7	↓	↓	↓	A 1018687	↓	100 sheets x 3	P	↓	↓	↓	↓	
8	Chlorinated Herbicides - 8150B	Chem Service	MCSH8151899-ML	5133900	6/30/2018	1 ML	G	5/24/17	944			
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/6/17	1026	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
13	EPN	Accustd	P-220S-A	216091279	9/27/18	1 ML	G	5/25/17	424	6/21/17	424	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
15	Sulfotep	Accustd	M-622-24	214011220-01	3/8/19	1 ML	G	5/25/17	424			
16	Custom Pesticide STD	Accustd	S-22740-R1	213051032-5	08/24/18	1 ml	G		669			
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
21	Ethanol	Accustd	M-80156-001A	214101327	10/21/24	100% 5/25/17	G	5/25/17	1028			
22	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
23	Tetraethyl lead	Accustd	S-1263	216101270	10/24/16	5X/ml	G	5/25/17	262	7-5-17	904	
24	Coal Tar	↓	ALR-0945-T	214101128-01	6/18/18	1 ml	G	↓	↓	↓	↓	
25	2025-5-20-17											

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	8141 spike	Restek	32277	AD123432	12/2017	1ml	G	6/7/17	428			
2										7/1/17	785	
3										7/1/17	785	
4										06/13/17	610	
5										06/23/17	610	
6												
7												
8												
9												
10												
11	Membrane disc Filter (E.I.L.)	Restek	Supp-450	T60011	N/A	5 boxes	B	06/09/17	787	06/09/17	787	
12	Dichloromethane	EMD	D208215539	57132	6/8/2022	200L	PTUM	6/8/17	142	6/8/17	142	
13	Dibromochloromethane	AccuStd	M-502-17	215071153	7/14/2018	1 mL	G	6/9/17	1028			
14												
15	Hexachloropentadien	Ultras	EPA-1127-1	CM-1765E	7/31/19	1ml			669	06/26/17	669	
16												
17		Restek	32232	A0127073	4/2022					05/26/17	669	
18												
19												
20	8141 Custom STD	Ultras	CMS-11539	CR-2563	02/31/18							
21												
22												
23												
24												
25	Cellulose Filter for ASE 350	Restek	26168	105404	N/A	100PK x 350	P	6-16-17	785	6-16-17	785	

COMMENTS:

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1706400

July 14, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1706400

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July 14, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OB-05_17ET100_060517_EEL_01_WB	1706400-01	Tissue	05-Jun-17 13:00	13-Jun-17 10:00
OB-05_17ET100_060517_EEL_02_WB	1706400-02	Tissue	05-Jun-17 13:00	13-Jun-17 10:00
OB-05_17ET100_060517_EEL_03_WB	1706400-03	Tissue	05-Jun-17 13:00	13-Jun-17 10:00
OB-05_17ET111_060517_EEL_04_WB	1706400-04	Tissue	05-Jun-17 14:18	13-Jun-17 10:00
OB-05_17ET111_060517_EEL_05_WB	1706400-05	Tissue	05-Jun-17 14:18	13-Jun-17 10:00
OB-05_17ET110_060517_EEL_06_WB	1706400-06	Tissue	05-Jun-17 14:22	13-Jun-17 10:00
OB-05_17ET110_060517_EEL_07_WB	1706400-07	Tissue	05-Jun-17 14:22	13-Jun-17 10:00
OB-05_17ET104_060517_EEL_08_WB	1706400-08	Tissue	05-Jun-17 14:37	13-Jun-17 10:00
OB-05_17ET104_060517_EEL_09_WB	1706400-09	Tissue	05-Jun-17 14:37	13-Jun-17 10:00
OB-05_17ET101_060517_EEL_10_WB	1706400-10	Tissue	05-Jun-17 14:47	13-Jun-17 10:00
OB-05_17ET101_060517_EEL_11_WB	1706400-11	Tissue	05-Jun-17 14:47	13-Jun-17 10:00
OB-05_17ET141_060617_EEL_12_WB	1706400-12	Tissue	06-Jun-17 11:20	13-Jun-17 10:00
OB-05_17ET141_060617_EEL_13_WB	1706400-13	Tissue	06-Jun-17 11:20	13-Jun-17 10:00
OB-05_17ET141_060617_EEL_14_WB	1706400-14	Tissue	06-Jun-17 11:20	13-Jun-17 10:00
OB-05_17ET141_060617_EEL_15_WB	1706400-15	Tissue	06-Jun-17 11:20	13-Jun-17 10:00
OB-05_17ET141_060617_EEL_16_WB	1706400-16	Tissue	06-Jun-17 11:20	13-Jun-17 10:00
OB-05_17ET141_060617_EEL_17_WB	1706400-17	Tissue	06-Jun-17 11:20	13-Jun-17 10:00
OB-05_17ET141_060617_EEL_18_WB	1706400-18	Tissue	06-Jun-17 11:20	13-Jun-17 10:00
OB-05_17ET141_060617_EEL_19_WB	1706400-19	Tissue	06-Jun-17 11:20	13-Jun-17 10:00
OB-05_17ET141_060617_EEL_20_WB	1706400-20	Tissue	06-Jun-17 11:20	13-Jun-17 10:00

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The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King**Reported:**
14-Jul-17 11:23

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 6/13/2017 10:00:00 AM. The samples were received intact, on-ice within two sealed cooler at -42.0 and -47.0 degrees Celsius.

The tissue samples were sent to Eurofins Calscience for % Lipids by NOAA 1993a after EFGS completed the homogenization. The final data can be found at the end of the report after the Mercury raw data.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

The samples were prepped in batches F706521 and F706598. They were analyzed in sequences 7F22012 and 7G06014.

Sample 1706400-01 was used as the QC source for the Matrix Spike (MS) and Matrix Spike Duplicate (MSD) in batch F706521.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Maricris dela Rosa, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
14-Jul-17 11:23

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Maricris dela Rosa

Sample Receipt Checklist

EFGS Work Order: 1706400

Client: AMEC Foster Wheeler

Date & Time Received: 6/13/17 10:00

Date Labeled: 6/13/17 Labeled By: CS

Project: _____

Received By: LM

Label Verified By: VW

of Coolers Received: 2 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Q/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID:	CF:	Date/time:	By:
<u>5325</u>	<u>0.0 °C</u>	<u>6/13/17 10:00</u>	<u>LM</u>
Cooler 1: <u>-47 °C</u>	w/ CF: <u>-47 °C</u>	Cooler 4: _____ °C	w/ CF: _____ °C
Cooler 2: <u>-42 °C</u>	w/ CF: <u>42 °C</u>	Cooler 5: _____ °C	w/ CF: _____ °C
Cooler 3: _____ °C	w/ CF: _____ °C	Cooler 6: _____ °C	w/ CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	N	
Preservation type:	N	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	N/A	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	MA	

Anomalies/Non-conformances (attach additional pages if needed):

1706400

Environmental Analysis Request/Chain of Custody

Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101			Matrix		Analyses Requested				For Lab Use Only	
Project Name#: JSDC Penobscot			PN # 3616165052.04A.042		Preservation Codes				SF #	
Project Manager: Rod Pendleton			P.O. #						SCR #	
Sampler: KB/JP			FWSID #						Preservation Codes	
Phone #:			Quote #						H = HCl F = Thiourea	
State where samples were collected: ME			For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>						N = HNO ₃ S = NaOH	
									K = H ₂ SO ₄ P = H ₂ PO ₄	
									U = Other	
Sample Identification			Collection		Total # of Containers				Remarks	
	Date	Time	Grab	Composite	Soil	Water	Other	Hg 1631e	Zinc 1631e	
1	08-05_17ET100_060517_EEL_01_WB	8/5/2017	1300	Grab			WB WB	1	1	1
2	08-05_17ET100_060517_EEL_02_WB	8/5/2017	1300	Grab			WB WB	1	1	1
3	08-05_17ET100_060517_FEL_03_WB	8/5/2017	1300	Grab			WB WB	1	1	1
4	08-05_17ET111_050517_EEL_04_WB	8/5/2017	1418	Grab			WB WB	1	1	1
5	08-05_17ET111_050517_FEL_05_WB	8/5/2017	1418	Grab			WB WB	1	1	1
6	08-05_17ET110_060517_EEL_06_WB	8/5/2017	1422	Grab			WB WB	1	1	1
7	08-05_17ET110_060517_FEL_07_WB	8/5/2017	1422	Grab			WB WB	1	1	1
8	08-05_17ET104_060517_EEL_08_WB	8/5/2017	1437	Grab			WB WB	1	1	1
9	08-05_17ET104_060517_EEL_09_WB	8/5/2017	1437	Grab			WB WB	1	1	1
10	08-05_17ET101_060517_EEL_10_WB	8/5/2017	1447	Grab			WB WB	1	1	1
11	08-05_17ET101_060517_EEL_11_WB	8/5/2017	1447	Grab			WB WB	1	1	1
12	08-05_17ET141_060617_EEL_12_WB	8/6/2017	1120	Grab			WB WB	1	1	1
13	08-05_17ET141_060617_EEL_13_WB	8/6/2017	1120	Grab			WB WB	1	1	1
14	08-05_17ET141_060617_EEL_14_WB	8/6/2017	1120	Grab			WB WB	1	1	1
15	08-05_17ET141_060617_EEL_15_WB	8/6/2017	1120	Grab			WB WB	1	1	1
16	08-05_17ET141_050517_EEL_16_WB	8/5/2017	1120	Grab			WB WB	1	1	1
17	08-05_17ET141_050517_EEL_17_WB	8/5/2017	1120	Grab			WB WB	1	1	1
18	08-05_17ET141_050517_EEL_18_WB	8/5/2017	1120	Grab			WB WB	1	1	1
19	08-05_17ET141_060617_EEL_19_WB	8/6/2017	1120	Grab			WB WB	1	1	1
20	08-05_17ET141_060617_FEL_20_WB	8/6/2017	1120	Grab			WB WB	1	1	1
Turnaround Time Requested (TAT) (please check)			Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Relinquished by: <i>[Signature]</i>		Date: 8/15/17	Time: 14:50	Received by: <i>[Signature]</i>	
Notes:			9020 5603 8357 8 8360 FedEx # _____ # of Copiers: 2		Relinquished by:		Date:	Time:	Received by: <i>[Signature]</i>	
Data Package Options (please check if required)			High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		Relinquished by:		Date:	Time:	Received by: <i>[Signature]</i>	
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			If yes, format: _____		Relinquished by Commercial Carrier:		UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other <input type="checkbox"/>		Temperature upon receipt: -47 °C	

Yes Seal

1706400

Environmental Analysis Request/Chain of Custody

Page 2 of 2

Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101				Matrix			Analyses Requested						For Lab Use Only								
Project Name/#: USDC Penobscot		PN #3616166052.04A.042		<input type="checkbox"/> Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Water <input type="checkbox"/> NPDES <input type="checkbox"/> Tissue			Preservation Codes						SF #: _____								
Project Manager: Rod Pendleton		P.O. #:											SCR #: _____								
Sampler: KB/JP		PWSID #:											Preservation Codes								
Phone #:		Quote #:											I = ICI T = Thioaurate N = INO ₃ B = N=O ₂ S = H ₂ SO ₄ F = H ₂ PO ₄ O = Other								
State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>											Remarks								
Sample Identification		Date	Time	Grab	Composite	Soil	Water	Other:	Total # of Containers	Hg 1631n Ziplock/Frozen	Lipid - NOAA 1993 Ziplock/Frozen										
21	OB-05_17ET100_060517_EEL_WB_MS	6/5/2017	1300	Grab				WE	1	1	1										
22	OB-05_17ET100_060517_EEL_WB_MD	6/5/2017	1300	Grab				WE	1	1	1	Analyze for both Hg and Lipid from each sample Use material for MS and MD									
Turnaround Time Requested (TAT) (please check): Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>				Relinquished by: <i>[Signature]</i>		Date: 6-12-17		Time: 1450		Received by: <i>[Signature]</i>		Date: 6/18/17		Time: 10:00							
Notes: 96205603 8357 21 8366 FedEx # # of Coolers: 2 Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report Report and EDD to: denise.king@amecfw.com / 978-692-8633				Relinquished by:		Date:		Time:		Received by: <i>[Signature]</i>		Date:		Time:							
Data Package Options (please check if required) High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>				Relinquished by:		Date:		Time:		Received by: <i>[Signature]</i>		Date:		Time:							
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, format: _____				Relinquished by Commercial Carrier:		Date:		Time:		Received by:		Date:		Time:							
				UPS _____ FedEx _____ Other _____								Temperature upon receipt: 47 °C									

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Per Seal



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET100_060517_EEL_01_WB
1706400-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	468	1.59	14.2	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	
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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET100_060517_EEL_02_WB
1706400-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	322	1.53	13.7	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET100_060517_EEL_03_WB
1706400-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	293	1.66	14.8	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET111_060517_EEL_04_WB
1706400-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	706	1.52	13.6	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET111_060517_EEL_05_WB
1706400-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	381	1.58	14.1	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



AMEC Foster Wheeler
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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET110_060517_EEL_06_WB
1706400-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	224	1.62	14.5	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET110_060517_EEL_07_WB
1706400-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	92.1	1.54	13.7	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET104_060517_EEL_08_WB
1706400-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	249	1.71	15.2	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET104_060517_EEL_09_WB
1706400-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	417	1.63	14.6	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET101_060517_EEL_10_WB
1706400-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	528	1.71	15.3	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET101_060517_EEL_11_WB
1706400-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	316	1.66	14.8	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET141_060617_EEL_12_WB
1706400-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	234	1.53	13.7	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET141_060617_EEL_13_WB
1706400-13

Analyte	Detection		Reporting		Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit	Limit								
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion												
Mercury	201	1.66	14.9		ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



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271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET141_060617_EEL_14_WB
1706400-14

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	277	1.62	14.5	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



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271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET141_060617_EEL_15_WB
1706400-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	124	1.56	14.0	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



AMEC Foster Wheeler
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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET141_060617_EEL_16_WB
1706400-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	110	1.56	13.9	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET141_060617_EEL_17_WB
1706400-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	80.0	1.68	15.0	ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET141_060617_EEL_18_WB
1706400-18

Analyte	Detection		Reporting		Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit	Limit								
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion												
Mercury	116	1.49	13.3		ng/g	400	F706521	19-Jun-17	7F22012	21-Jun-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET141_060617_EEL_19_WB
1706400-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	303	1.57	14.0	ng/g	400	F706598	26-Jun-17	7G06014	05-Jul-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
06-Jul-17 17:55

OB-05_17ET141_060617_EEL_20_WB
1706400-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	221	1.53	13.7	ng/g	400	F706598	26-Jun-17	7G06014	05-Jul-17	EPA 1631B	

AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	Reported: 06-Jul-17 17:55
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7F22012 - F706521											
Cal Standard (7F22012-CAL1)					Prepared & Analyzed: 21-Jun-17						
Mercury	0.523	-		ng/L	0.50100		104				
Cal Standard (7F22012-CAL2)					Prepared & Analyzed: 21-Jun-17						
Mercury	1.056	-		ng/L	1.0020		105				
Cal Standard (7F22012-CAL3)					Prepared & Analyzed: 21-Jun-17						
Mercury	5.049	-		ng/L	5.0100		101				
Cal Standard (7F22012-CAL4)					Prepared & Analyzed: 21-Jun-17						
Mercury	18.86	-		ng/L	20.040		94.1				
Cal Standard (7F22012-CAL5)					Prepared & Analyzed: 21-Jun-17						
Mercury	37.80	-		ng/L	40.080		94.3				
Calibration Blank (7F22012-CCB1)					Prepared & Analyzed: 21-Jun-17						
Mercury	0.029	-		ng/L							
Calibration Blank (7F22012-CCB2)					Prepared & Analyzed: 21-Jun-17						
Mercury	0.047	-		ng/L							
Calibration Blank (7F22012-CCB3)					Prepared & Analyzed: 21-Jun-17						
Mercury	0.127	-		ng/L							
Calibration Blank (7F22012-CCB4)					Prepared & Analyzed: 21-Jun-17						
Mercury	0.070	-		ng/L							
Calibration Blank (7F22012-CCB5)					Prepared & Analyzed: 21-Jun-17						
Mercury	0.100	-		ng/L							

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Project Manager: Denise King

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7F22012 - F706521											
Calibration Blank (7F22012-CCB6) Prepared & Analyzed: 21-Jun-17											
Mercury	0.115	-		ng/L							
Calibration Blank (7F22012-CCB7) Prepared & Analyzed: 21-Jun-17											
Mercury	0.071	-		ng/L							
Calibration Check (7F22012-CCV1) Prepared & Analyzed: 21-Jun-17											
Mercury	4.816	-		ng/L	5.0000		96.3	77-123			
Calibration Check (7F22012-CCV2) Prepared & Analyzed: 21-Jun-17											
Mercury	4.702	-		ng/L	5.0000		94.0	77-123			
Calibration Check (7F22012-CCV3) Prepared & Analyzed: 21-Jun-17											
Mercury	4.850	-		ng/L	5.0000		97.0	77-123			
Calibration Check (7F22012-CCV4) Prepared & Analyzed: 21-Jun-17											
Mercury	4.836	-		ng/L	5.0000		96.7	77-123			
Calibration Check (7F22012-CCV5) Prepared & Analyzed: 21-Jun-17											
Mercury	4.890	-		ng/L	5.0000		97.8	77-123			
Calibration Check (7F22012-CCV6) Prepared & Analyzed: 21-Jun-17											
Mercury	4.902	-		ng/L	5.0000		98.0	77-123			
Calibration Check (7F22012-CCV7) Prepared & Analyzed: 21-Jun-17											
Mercury	4.727	-		ng/L	5.0000		94.5	77-123			
Instrument Blank (7F22012-IBL1) Prepared & Analyzed: 21-Jun-17											
Mercury	ND	0.004	0.040	ng/L							U

AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	Reported: 06-Jul-17 17:55
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7F22012 - F706521

Instrument Blank (7F22012-IBL2)					Prepared & Analyzed: 21-Jun-17						
Mercury	ND	0.004	0.040	ng/L							U

Instrument Blank (7F22012-IBL3)					Prepared & Analyzed: 21-Jun-17						
Mercury	ND	0.004	0.040	ng/L							U

Initial Cal Check (7F22012-ICV1)					Prepared & Analyzed: 21-Jun-17						
Mercury	5.065	-		ng/L	5.0000		101	79-121			

Batch 7G06014 - F706598

Cal Standard (7G06014-CAL1)					Prepared & Analyzed: 05-Jul-17						
Mercury	0.526	-		ng/L	0.50100		105				

Cal Standard (7G06014-CAL3)					Prepared & Analyzed: 05-Jul-17						
Mercury	4.836	-		ng/L	5.0100		96.5				

Cal Standard (7G06014-CAL4)					Prepared & Analyzed: 05-Jul-17						
Mercury	18.61	-		ng/L	20.040		92.9				

Cal Standard (7G06014-CAL5)					Prepared & Analyzed: 05-Jul-17						
Mercury	37.80	-		ng/L	40.080		94.3				

Cal Standard (7G06014-CAL6)					Prepared & Analyzed: 05-Jul-17						
Mercury	1.106	-		ng/L	1.0020		110				

Calibration Blank (7G06014-CCB1)					Prepared & Analyzed: 05-Jul-17						
Mercury	0.040	-		ng/L							

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7G06014 - F706598											
Calibration Blank (7G06014-CCB2)											
Prepared & Analyzed: 05-Jul-17											
Mercury	0.069	-		ng/L							
Calibration Check (7G06014-CCV1)											
Prepared & Analyzed: 05-Jul-17											
Mercury	4.962	-		ng/L	5.0000		99.2	77-123			
Calibration Check (7G06014-CCV2)											
Prepared & Analyzed: 05-Jul-17											
Mercury	5.058	-		ng/L	5.0000		101	77-123			
Instrument Blank (7G06014-IBL1)											
Prepared & Analyzed: 05-Jul-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7G06014-IBL2)											
Prepared & Analyzed: 05-Jul-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7G06014-IBL3)											
Prepared & Analyzed: 05-Jul-17											
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7G06014-ICV1)											
Prepared & Analyzed: 05-Jul-17											
Mercury	4.978	-		ng/L	5.0000		99.6	79-121			
Batch F706521 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F706521-BLK1)											
Prepared: 19-Jun-17 Analyzed: 21-Jun-17											
Mercury	0.175	0.090	0.800	ng/g							J
Blank (F706521-BLK2)											
Prepared: 19-Jun-17 Analyzed: 21-Jun-17											
Mercury	0.114	0.090	0.800	ng/g							J



AMEC Foster Wheeler
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Project Manager: Denise King

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F706521 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F706521-BLK3) Prepared: 19-Jun-17 Analyzed: 21-Jun-17											
Mercury	ND	0.090	0.800	ng/g							U
Blank (F706521-BLK4) Prepared: 19-Jun-17 Analyzed: 21-Jun-17											
Mercury	ND	0.072	0.641	ng/g							U
Blank (F706521-BLK5) Prepared: 19-Jun-17 Analyzed: 21-Jun-17											
Mercury	ND	0.071	0.635	ng/g							U
LCS (F706521-BS1) Prepared: 19-Jun-17 Analyzed: 21-Jun-17											
Mercury	7.420	0.090	0.800	ng/g	8.0160		92.6	75-125			
LCS (F706521-BS2) Prepared: 19-Jun-17 Analyzed: 21-Jun-17											
Mercury	333.3	3.55	31.7	ng/g	382.50		87.1	75-125			
LCS Dup (F706521-BSD1) Prepared: 19-Jun-17 Analyzed: 21-Jun-17											
Mercury	7.432	0.090	0.800	ng/g	8.0160		92.7	75-125	0.154	24	
Duplicate (F706521-DUP2) Source: 1706400-01 Prepared: 19-Jun-17 Analyzed: 21-Jun-17											
Mercury	508.5	1.74	15.6	ng/g		468.4			8.22	24	
Matrix Spike (F706521-MS1) Source: 1706400-01 Prepared: 19-Jun-17 Analyzed: 21-Jun-17											
Mercury	836.3	1.68	15.0	ng/g	375.80	468.4	97.9	71-125			
Matrix Spike (F706521-MS2) Source: 1706533-06 Prepared: 19-Jun-17 Analyzed: 21-Jun-17											
Mercury	2243	10.2	90.8	ng/g	363.37	1912	91.3	71-125			
Matrix Spike Dup (F706521-MSD1) Source: 1706400-01 Prepared: 19-Jun-17 Analyzed: 21-Jun-17											
Mercury	793.2	1.54	13.7	ng/g	343.64	468.4	94.5	71-125	3.52	24	



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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F706521 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F706521-MSD2)		Source: 1706533-06			Prepared: 19-Jun-17 Analyzed: 21-Jun-17						
Mercury	2383	10.4	92.6	ng/g	370.58	1912	127	71-125	32.9	24	QM-02, QR-08

Batch F706598 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F706598-BLK1)					Prepared: 26-Jun-17 Analyzed: 05-Jul-17						
Mercury	0.121	0.090	0.800	ng/g							J
Blank (F706598-BLK2)					Prepared: 26-Jun-17 Analyzed: 05-Jul-17						
Mercury	ND	0.090	0.800	ng/g							U
Blank (F706598-BLK3)					Prepared: 26-Jun-17 Analyzed: 05-Jul-17						
Mercury	ND	0.090	0.800	ng/g							U
Blank (F706598-BLK4)					Prepared: 26-Jun-17 Analyzed: 05-Jul-17						
Mercury	ND	0.082	0.732	ng/g							F-03, U
Blank (F706598-BLK5)					Prepared: 26-Jun-17 Analyzed: 05-Jul-17						
Mercury	ND	0.083	0.741	ng/g							F-03, U
Blank (F706598-BLK6)					Prepared: 26-Jun-17 Analyzed: 05-Jul-17						
Mercury	ND	0.087	0.777	ng/g							F-03, U
LCS (F706598-BS1)					Prepared: 26-Jun-17 Analyzed: 05-Jul-17						
Mercury	7.578	0.090	0.800	ng/g	8.0160		94.5	75-125			
LCS (F706598-BS2)					Prepared: 26-Jun-17 Analyzed: 05-Jul-17						
Mercury	348.5	3.47	31.0	ng/g	382.50		91.1	75-125			

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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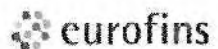
Batch F706598 - EFGS-011 Nitric/Sulfuric Hg Digestion

LCS Dup (F706598-BSD1)		Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	7.290	0.090	0.800	ng/g	8.0160		90.9	75-125	3.87	24	
Duplicate (F706598-DUP1)		Source: 1706398-01 Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	291.7	1.62	14.5	ng/g		305.7			4.68	24	
Matrix Spike (F706598-MS1)		Source: 1706398-01 Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	644.7	1.67	14.9	ng/g	372.58	305.7	91.0	71-125			
Matrix Spike Dup (F706598-MSD1)		Source: 1706398-01 Prepared: 26-Jun-17 Analyzed: 05-Jul-17									
Mercury	651.6	1.68	15.0	ng/g	374.95	305.7	92.2	71-125	1.38	24	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King**Reported:**
06-Jul-17 17:55**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-08 The RPD value for the MS/MSD was outside of acceptance limits. Batch QC acceptable based on matrix duplicate and/or LCS/LCSD RPD values within control limits.
- QM-02 The MS and/or MSD recoveries outside acceptance limits, due to spike concentration less than 1 times the sample concentration. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26003-170621-1

Analysis Datasheet for Total Mercury

Date of Analysis: June 21, 2017

Analyst: BC

Instrument #: Hg2600-3

Units: ng/L

LIMS Sequence #: 7F22010, 7F22011, 7F22012

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	80.24 units	160.47	73.58 units	147.15	104.6 %Rec
SEQ-CAL2	1	1.00 ng/L	155.20 units	155.20	148.54 units	148.54	105.6 %Rec
SEQ-CAL3	1	5.00 ng/L	716.89 units	143.38	710.23 units	142.05	101.0 %Rec
SEQ-CAL4	1	20.00 ng/L	2650.10 units	133.00	2653.44 units	132.67	94.3 %Rec
SEQ-CAL5	1	40.00 ng/L	5324.69 units	133.12	5318.03 units	132.95	94.5 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 140.67 +/- 7.57 5.4% RSD 145.03

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.66 units	±1.80	0.05 ng/L	±0.03

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.511 ng/L	±0.635
BLK	2	3	9.349 ng/L	±4.404
BLK	3	3	2.916 ng/L	±1.450
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER-REVIEWED
 INITIALS: DM 6/22/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	Correction ?	RESP	InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber													
Hg2600-3	BC	CAL	SEQ-IRL1	1	6/21/2017 8:30:50	69012-1.RAW	8:30:59 AM	7.97				1.3	0.039	0.003	ng/L	
Hg2600-3	BC	CAL	SEQ-IDL2	1	6/21/2017 8:35:07	69013-1.RAW	8:35:07 AM	1.34				5.3	-0.038	-0.038	ng/L	
Hg2600-3	BC	CAL	SEQ-IRL2	1	6/21/2017 8:39:16	69014-1.RAW	8:39:15 AM	10.68				4.0	0.079	0.029	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	6/21/2017 8:43:24	69015-1.RAW	8:43:24 AM	80.24				73.6	0.523	0.523	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	6/21/2017 8:47:33	69016-1.RAW	8:47:33 AM	155.20				148.5	1.056	1.056	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	6/21/2017 8:51:41	69017-1.RAW	8:51:41 AM	716.09				710.2	5.049	5.049	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	6/21/2017 8:55:50	69018-1.RAW	8:55:50 AM	2660.10				2653.4	18.863	18.863	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	6/21/2017 8:59:58	69019-1.RAW	8:59:58 AM	5324.69				5318.0	37.805	37.805	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	6/21/2017 9:04:07	69020-1.RAW	9:04:07 AM	719.27				712.6	5.065	5.065	ng/L	
Hg2600-3	BC	BLK	F706521-BLK*	20	6/21/2017 9:08:15	69021-1.RAW	9:08:15 AM	22.02				15.4	0.109	2.181	ng/L	
Hg2600-3	BC	BLK	F706521-BLK2	20	6/21/2017 9:12:24	69022-1.RAW	9:12:24 AM	16.68				10.0	0.071	1.425	ng/L	
Hg2600-1	BC	BLK	F706521-BLK3	20	6/21/2017 9:16:32	69023-1.RAW	9:16:32 AM	13.75				6.5	0.046	0.923	ng/L	
Hg2600-2	BC	SAM	*F706521-BLK4	20	6/21/2017 9:20:40	69024-1.RAW	9:20:40 AM	13.73				7.1	-0.025	-0.506	ng/L	
Hg2600-3	BC	SAM	F706521-BLK5	20	6/21/2017 9:24:49	69025-1.RAW	9:24:49 AM	12.89				5.0	-0.033	-0.654	ng/L	
Hg2600-3	BC	SAM	F706521-BL6	20	6/21/2017 9:28:57	69026-1.RAW	9:28:57 AM	899.67				653.0	4.638	92.753	ng/L	
Hg2600-3	BC	SAM	F706521-BSD1	20	6/21/2017 9:33:05	69027-1.RAW	9:33:06 AM	676.07				654.0	4.045	92.896	ng/L	
Hg2600-3	BC	SAM	F706521-BSD2	400	6/21/2017 9:37:14	69028-1.RAW	9:37:14 AM	747.34				740.7	5.262	2104.518	ng/L	
Hg2600-3	BC	SAM	1706400-C1	400	6/21/2017 9:41:23	69029-1.RAW	9:41:23 AM	2320.53				2313.9	16.445	6577.987	ng/L	
Hg2600-3	BC	SAM	1706400-C2	400	6/21/2017 9:45:31	69030-1.RAW	9:45:31 AM	1681.60				1655.1	11.762	4704.896	ng/L	
Hg2600-3	BC	CAL	SEQ-COV1	1	6/21/2017 9:49:39	69031-1.RAW	9:49:39 AM	694.20				677.5	4.816	4.816	ng/L	
Hg2600-3	BC	CAL	SEQ-COV3	1	6/21/2017 9:53:48	69032-1.RAW	9:53:48 AM	10.72				4.1	0.029	0.029	ng/L	
Hg2600-3	BC	SAM	1706400-03	400	6/21/2017 9:57:56	69033-1.RAW	9:57:56 AM	1299.09				1392.4	9.895	3957.873	ng/L	
Hg2600-3	BC	SAM	1706400-04	400	6/21/2017 10:02:05	69034-1.RAW	10:02:05 AM	3659.83				3652.3	25.959	10393.764	ng/L	
Hg2600-3	BC	SAM	1706400-05	400	6/21/2017 10:06:13	69035-1.RAW	10:06:13 AM	1914.50				1907.8	13.559	5123.433	ng/L	
Hg2600-3	BC	SAM	1706400-06	400	6/21/2017 10:10:22	69036-1.RAW	10:10:22 AM	1093.70				1087.0	7.724	3083.432	ng/L	
Hg2600-3	BC	SAM	1706400-07	400	6/21/2017 10:14:30	69037-1.RAW	10:14:30 AM	473.88				472.3	5.354	1341.518	ng/L	
Hg2600-3	BC	SAM	1706400-08	400	6/21/2017 10:18:39	69038-1.RAW	10:18:39 AM	1157.63				1151.0	8.178	3271.288	ng/L	
Hg2600-3	BC	SAM	1706400-09	400	6/21/2017 10:22:47	69039-1.RAW	10:22:47 AM	2017.85				2011.2	14.293	5717.313	ng/L	
Hg2600-3	BC	SAM	1706400-10	400	6/21/2017 10:26:55	69040-1.RAW	10:26:55 AM	3435.83				3429.2	17.265	6905.855	ng/L	
Hg2600-3	BC	SAM	1706400-11	400	6/21/2017 10:31:04	69041-1.RAW	10:31:04 AM	1507.23				1500.6	10.663	4265.363	ng/L	
Hg2600-3	BC	SAM	1706400-12	400	6/21/2017 10:35:12	69042-1.RAW	10:35:12 AM	1209.51				1203.9	8.548	3419.080	ng/L	
Hg2600-3	BC	CAL	SEQ-COV2	1	6/21/2017 10:39:21	69043-1.RAW	10:39:21 AM	368.74				361.5	4.702	4.702	ng/L	
Hg2600-3	BC	CAL	SEQ-CGB2	1	6/21/2017 10:43:29	69044-1.RAW	10:43:29 AM	13.32				6.7	0.047	0.047	ng/L	
Hg2600-3	BC	SAM	F706400-13	400	6/21/2017 10:47:38	69045-1.RAW	10:47:38 AM	968.69				952.0	6.764	2705.596	ng/L	
Hg2600-3	BC	SAM	F706400-14	400	6/21/2017 10:51:45	69046-1.RAW	10:51:46 AM	1355.48				1348.8	9.585	3933.863	ng/L	
Hg2600-3	BC	SAM	F706400-15	400	6/21/2017 10:55:55	69047-1.RAW	10:55:55 AM	434.21				427.5	4.457	1782.930	ng/L	
Hg2600-3	BC	SAM	F706400-16	400	6/21/2017 11:00:03	69048-1.RAW	11:00:03 AM	586.19				559.5	3.374	1595.503	ng/L	
Hg2600-3	BC	SAM	F706400-17	400	6/21/2017 11:04:11	69049-1.RAW	11:04:11 AM	392.38				375.9	2.669	1057.120	ng/L	
Hg2600-3	BC	SAM	F706400-18	400	6/21/2017 11:08:20	69050-1.RAW	11:08:20 AM	620.55				613.9	4.360	1744.091	ng/L	
Hg2600-3	BC	SAM	F706533-01	400	6/21/2017 11:12:28	69051-1.RAW	11:12:28 AM	49.04				42.4	0.297	118.997	ng/L	
Hg2600-3	BC	SAM	F706533-06	400	6/21/2017 11:16:37	69052-1.RAW	11:16:37 AM	9665.34				9658.7	68.558	27453.054	ng/L	
Hg2600-3	BC	SAM	F706521-DUP1	400	6/21/2017 11:20:45	69053-1.RAW	11:20:45 AM	1929.59				1922.9	13.666	5466.334	ng/L	
Hg2600-3	BC	SAM	F706521-MS1	400	6/21/2017 11:24:54	69054-1.RAW	11:24:54 AM	3823.45				3813.8	27.818	1127.376	ng/L	
Hg2600-1	BC	CAL	SEQ-COV3	1	6/21/2017 11:29:02	69055-1.RAW	11:29:02 AM	688.96				662.3	4.850	4.850	ng/L	
Hg2600-3	BC	CAL	SEQ-CGB3	1	6/21/2017 11:33:11	69056-1.RAW	11:33:11 AM	24.62				17.9	0.127	0.127	ng/L	
Hg2600-3	BC	SAM	F706521-MSD1	400	6/21/2017 11:37:19	69057-1.RAW	11:37:19 AM	4005.89				4059.2	28.852	11540.956	ng/L	
Hg2600-3	BC	SAM	F706533-GARE1	20	6/21/2017 11:41:27	69058-1.RAW	11:41:27 AM	720.82				714.2	5.001	100.025	ng/L	
Hg2600-3	BC	SAM	F706533-DBRE1	2500	6/21/2017 11:45:36	69059-1.RAW	11:45:36 AM	1611.83				1605.2	11.410	28525.964	ng/L	
Hg2600-3	BC	SAM	F706521-MS2	2500	6/21/2017 11:49:44	69060-1.RAW	11:49:44 AM	1743.71				1737.0	12.348	30869.147	ng/L	
Hg2600-3	BC	SAM	F706521-MSD2	2500	6/21/2017 11:53:53	69061-1.RAW	11:53:53 AM	1816.21				1809.5	12.863	37157.686	ng/L	
Hg2600-3	BC	BLK	F706547-BLK1	100	6/21/2017 11:58:01	69062-1.RAW	11:58:01 AM	25.97				19.3	0.137	13.726	ng/L	
Hg2600-3	BC	BLK	F706547-BLK2	100	6/21/2017 12:02:10	69063-1.RAW	12:02:10 PM	19.89				13.2	0.094	9.404	ng/L	
Hg2600-3	BC	BLK	F706547-BLK3	100	6/21/2017 12:06:18	69064-1.RAW	12:06:18 PM	13.58				6.9	0.049	4.919	ng/L	
Hg2600-3	BC	SAM	F706547-ES1	400	6/21/2017 12:10:26	69065-1.RAW	12:10:26 PM	1648.85				1640.0	11.635	4563.960	ng/L	
Hg2600-3	BC	SAM	F706547-ESD1	400	6/21/2017 12:14:35	69066-1.RAW	12:14:35 PM	1651.30				1641.6	11.668	4567.205	ng/L	
Hg2600-3	BC	CAL	SEQ-COV4	1	6/21/2017 12:18:43	69067-1.RAW	12:18:43 PM	686.92				680.3	4.836	4.836	ng/L	
Hg2600-3	BC	CAL	SEQ-CGB4	1	6/21/2017 12:22:52	69068-1.RAW	12:22:52 PM	16.52				9.9	0.070	0.070	ng/L	

Sample				Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	Correction ?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Instrument	Analyst	Type	LabNumber												
Hg2600-3	BC	SAM	1706533-01	100	6/21/2017 12:27:00	69069-1.RAW	12:27:00 PM	2642.37	2		2635.7	18.543	1854.317	ng/L	
Hg2600-3	BC	SAM	1706533-02	100	6/21/2017 12:31:09	69070-1.RAW	12:31:09 PM	2591.81	2		2585.7	18.284	1828.374	ng/L	
Hg2600-3	BC	SAM	1706533-03	100	6/21/2017 12:35:17	69071-1.RAW	12:35:17 PM	81.065	2		25.3	0.086	8.629	ng/L	
Hg2600-3	BC	SAM	1706533-010	100	6/21/2017 12:39:26	69072-1.RAW	12:39:26 PM	93.085	2		17.2	0.029	2.078	ng/L	
Hg2600-3	BC	SAM	1706533-02E	100	6/21/2017 12:43:34	69073-1.RAW	12:43:34 PM	30.60	2		23.9	0.077	7.667	ng/L	
Hg2600-3	BC	SAM	1706533-03D	100	6/21/2017 12:47:42	69074-1.RAW	12:47:42 PM	17.47	2		10.8	0.017	-1.670	ng/L	
Hg2600-3	BC	SAM	F706547-DUP1	100	6/21/2017 12:51:51	69075-1.RAW	12:51:51 PM	2735.23	2		2728.9	19.303	1930.330	ng/L	
Hg2600-3	BC	SAM	F706547-MS1	400	6/21/2017 12:55:50	69076-1.RAW	12:55:59 PM	3280.82	2		3274.2	23.252	9300.765	ng/L	
Hg2600-3	BC	SAM	F706547-MS1	400	6/21/2017 13:00:00	69077-1.RAW	1:00:08 PM	3262.36	2		3255.7	23.121	9278.725	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	6/21/2017 13:06:03	69078-1.RAW	1:06:03 PM	694.49			687.8	4.890	4.890	ng/L	
Hg2600-3	BC	CAL	SEQ-CCR6	1	6/21/2017 13:10:11	69079-1.RAW	1:10:11 PM	20.73061171			14.1	0.100	0.100	ng/L	
Hg2600-3	BC	BLK	F706450-0LK2	20	6/21/2017 13:20:54	69080-1.RAW	1:20:34 PM	33.30	3		31.6	0.225	4.498	ng/L	
Hg2600-3	BC	BLK	F706450-0LK2	20	6/21/2017 13:25:05	69081-1.RAW	1:25:03 PM	24.04	3		18.3	0.130	7.590	ng/L	
Hg2600-3	BC	BLK	F706450-0LK3	20	6/21/2017 13:29:11	69082-1.RAW	1:29:11 PM	18.27	3		11.6	0.083	1.651	ng/L	
Hg2600-3	BC	SAM	F706450-RS1	20	6/21/2017 13:33:20	69083-1.RAW	1:33:20 PM	2106.83	3		2100.2	14.784	295.677	ng/L	
Hg2600-3	BC	SAM	F706450-BSD1	20	6/21/2017 13:37:28	69084-1.RAW	1:37:28 PM	2132.99	3		2127.3	14.977	299.538	ng/L	
Hg2600-3	BC	SAM	1706136-01	25000	6/21/2017 13:41:37	69085-1.RAW	1:41:37 PM	34153.48	3		34146.8	242.742	242741.656	ng/L	
Hg2600-3	BC	SAM	1706260-01	25000	6/21/2017 13:45:45	69086-1.RAW	1:45:45 PM	1342.49	3		1325.6	9.496	2374022.215	ng/L	
Hg2600-3	BC	SAM	1706260-02	25000	6/21/2017 13:49:53	69087-1.RAW	1:49:53 PM	60.93	3		54.3	0.386	66444.084	ng/L	
Hg2600-3	BC	SAM	1706260-03	2500	6/21/2017 13:54:02	69088-1.RAW	1:54:02 PM	302.84	3		256.2	2.104	5260.749	ng/L	
Hg2600-3	BC	SAM	1706260-04	2500	6/21/2017 13:58:10	69089-1.RAW	1:58:10 PM	51.13	3		44.5	0.315	787.450	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	6/21/2017 14:02:19	69090-1.RAW	2:02:19 PM	696.25			689.6	4.902	4.902	ng/L	
Hg2600-3	BC	CAL	SEQ-CCR5	1	6/21/2017 14:06:27	69091-1.RAW	2:06:27 PM	22.88			16.2	0.115	0.115	ng/L	
Hg2600-3	BC	SAM	F706521-DUP2	400	6/21/2017 14:10:36	69092-1.RAW	2:10:36 PM	2303.84	3		2297.2	16.326	6530.546	ng/L	
Hg2600-3	BC	SAM	1706136-01RE1	100000	6/21/2017 14:14:44	69093-1.RAW	2:14:44 PM	3752.87	3		3746.2	26.631	2630095.652	ng/L	
Hg2600-3	BC	SAM	F706260-01RE1	250000	6/21/2017 14:18:52	69094-1.RAW	2:18:52 PM	1251.22	3		1244.6	8.847	2211818.854	ng/L	
Hc2600-3	BC	SAM	F706260-02RE1	2500	6/21/2017 14:23:01	69095-1.RAW	2:23:01 PM	39.86	3		33.2	0.235	587.024	ng/L	
Hg2600-3	BC	SAM	F706260-04RE1	100	6/21/2017 14:27:09	69096-1.RAW	2:27:09 PM	573.06	3		566.4	3.997	399.224	ng/L	
Hc2600-3	BC	SAM	F706260-05	2500	6/21/2017 14:31:18	69097-1.RAW	2:31:18 PM	235.38	3		288.7	2.051	5128.169	ng/L	
Hg2600-3	BC	SAM	1706260-06	2500	6/21/2017 14:35:25	69098-1.RAW	2:35:26 PM	30.76	3		24.1	0.170	425.425	ng/L	
Hg2600-3	BC	SAM	1706260-07	2500	6/21/2017 14:39:35	69099-1.RAW	2:39:35 PM	124.22	3		117.5	0.835	2086.320	ng/L	
Hg2600-3	BC	SAM	1706260-08	2500	6/21/2017 14:43:43	69100-1.RAW	2:43:43 PM	20.64	3		14.0	0.098	245.451	ng/L	
Hg2600-3	BC	SAM	1706260-09	2500	6/21/2017 14:47:52	69101-1.RAW	2:47:52 PM	58.38	3		51.7	0.366	916.176	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	6/21/2017 14:52:00	69102-1.RAW	2:52:00 PM	671.66			665.0	4.727	4.727	ng/L	
Hg2600-3	BC	CAL	SEQ-CCR7	1	6/21/2017 14:56:09	69103-1.RAW	2:56:09 PM	16.65			10.0	0.071	0.071	ng/L	
Hg2600-3	BC	SAM	1706260-02RE2	100	6/21/2017 15:00:17	69104-1.RAW	3:00:17 PM	375.35	3		368.7	2.592	259.173	ng/L	
Hg2600-3	BC	SAM	1706260-06RF1	100	6/21/2017 15:04:23	69105-1.RAW	3:04:23 PM	361.12	3		354.5	2.491	249.050	ng/L	
Hg2600-3	BC	SAM	1706260-07RF1	400	6/21/2017 15:08:34	69106-1.RAW	3:08:34 PM	683.99	3		677.3	4.808	1923.062	ng/L	
Hg2600-3	BC	SAM	1706260-08RF1	100	6/21/2017 15:12:42	69107-1.RAW	3:12:42 PM	249.24	3		242.6	1.695	169.526	ng/L	
Hg2600-3	BC	SAM	1706260-09RF1	100	6/21/2017 15:16:51	69108-1.RAW	3:16:51 PM	1130.82	3		1124.2	7.952	795.222	ng/L	
Hg2600-3	BC	SAM	1706260-10	400	6/21/2017 15:20:59	69109-1.RAW	3:20:59 PM	195.34	3		188.7	1.334	533.591	ng/L	
Hg2600-3	BC	SAM	1706260-11	400	6/21/2017 15:25:08	69110-1.RAW	3:25:08 PM	193.54	3		185.9	1.321	523.474	ng/L	
Hg2600-3	BC	SAM	1706260-12	400	6/21/2017 15:29:16	69111-1.RAW	3:29:16 PM	675.63	3		670.0	4.755	1902.138	ng/L	
Hg2600-3	BC	SAM	1706260-13	400	6/21/2017 15:33:24	69112-1.RAW	3:33:24 PM	239.54	3		232.9	1.648	659.287	ng/L	
Hg2600-3	BC	SAM	1706260-14	400	6/21/2017 15:37:33	69113-1.RAW	3:37:33 PM	563.82	3		557.2	3.933	1581.256	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	6/21/2017 15:41:41	69114-1.RAW	3:41:41 PM	678.38			671.7	4.775	4.775	ng/L	
Hg2600-3	BC	CAL	SEQ-CCR8	1	6/21/2017 15:45:50	69115-1.RAW	3:45:50 PM	19.96			13.3	0.095	0.095	ng/L	
Hg2600-3	BC	SAM	1706260-15	400	6/21/2017 15:49:58	69116-1.RAW	3:49:58 PM	246.78	3		240.1	1.700	679.870	ng/L	
Hg2600-3	BC	SAM	1706260-16	400	6/21/2017 15:54:07	69117-1.RAW	3:54:07 PM	508.36	3		501.7	3.559	1423.729	ng/L	
Hg2600-3	BC	SAM	1706260-17	400	6/21/2017 15:58:15	69118-1.RAW	3:58:15 PM	1082.82	3		1076.2	7.643	3057.155	ng/L	
Hg2600-3	BC	SAM	1706260-18	400	6/21/2017 16:02:24	69119-1.RAW	4:02:24 PM	811.25	3		804.6	5.712	2284.935	ng/L	
Hg2600-3	BC	SAM	1706136-02	2500	6/21/2017 16:06:32	69120-1.RAW	4:06:32 PM	1839.24	3		1832.6	13.026	32565.625	ng/L	
Hg2600-3	BC	SAM	1706136-03	2500	6/21/2017 16:10:40	69121-1.RAW	4:10:40 PM	470.01	3		463.3	3.293	8231.604	ng/L	
Hg2600-3	BC	SAM	1706136-04	100000	6/21/2017 16:14:48	69122-1.RAW	4:14:48 PM	3200.24	3		3193.6	22.702	2270237.316	ng/L	
Hg2600-3	BC	SAM	1706260-19	2500	6/21/2017 16:18:56	69123-1.RAW	4:18:56 PM	1775.29	3		1768.6	12.572	31428.986	ng/L	
Hg2600-3	BC	SAM	1706260-20	2500	6/21/2017 16:23:04	69124-1.RAW	4:23:04 PM	479.59	3		473.0	3.361	8403.723	ng/L	
Hg2600-3	BC	SAM	1706260-21	100000	6/21/2017 16:27:12	69125-1.RAW	4:27:12 PM	3160.28	3		3153.6	22.418	2244832.097	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV9	1	6/21/2017 16:31:21	69126-1.RAW	4:31:21 PM	700.73			694.1	4.934	4.934	ng/L	
Hg2600-3	BC	CAL	SEQ-CCR9	1	6/21/2017 16:35:29	69127-1.RAW	4:35:29 PM	25.40			18.7	0.133	0.133	ng/L	
Hg2600-3	BC	SAM	F706450-DUP1	250000	6/21/2017 16:39:38	69128-1.RAW	4:39:38 PM	2197.41	3		2190.7	15.574	3893380.531	ng/L	
Hg2600-3	BC	SAM	F706450-MS1	2500	6/21/2017 16:43:46	69129-1.RAW	4:43:46 PM	972.89	3		966.2	6.868	17168.765	ng/L	
Hg2600-3	BC	SAM	F706450-MSD1	2500	6/21/2017 16:47:54	69130-1.RAW	4:47:54 PM	988.82	3		982.2	6.981	17452.020	ng/L	
Hg2600-3	BC	SAM	F706450-MS2	400	6/21/2017 16:52:03	69131-1.RAW	4:52:03 PM	3298.68	3		3292.0	23.395	9357.068	ng/L	
Hg2600-3	BC	SAM	F706450-MSD2	400	6/21/2017 16:56:11	69132-1.RAW	4:56:11 PM	3326.80	3		3320.1	23.555	9437.940	ng/L	
Hg2600-3	BC	SAM	F706450-DUP2	250000	6/21/2017 17:00:20	69133-1.RAW	5:00:20 PM	125.17	3		124.5	8.847	2211730.595	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	Correction ?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	CAL	SEQ-CCVA	1	6/21/2017 17:04:28	69134-1.RAW	5:04:28 PM	704.87			698.2	4.963	4.953	ng/L	
Hg2600-3	BC	CAL	SEQ-CCBA	1	6/21/2017 17:08:36	69135-1.RAW	5:08:36 PM	27.19			20.5	0.146	0.146	ng/L	
Hg2600-3	BC	SAM	1706554-C1	1	6/21/2017 17:12:45	69136-1.RAW	5:12:45 PM	15.25		X	8.6	0.051	0.051	ng/L	
Hg2600-3	BC	CAL	SEQ-CCVB	1	6/21/2017 17:16:53	69137-1.RAW	5:16:53 PM	701.96			695.3	4.943	4.943	ng/L	
Hg2600-3	BC	CAL	SEQ-CCBB	1	6/21/2017 17:21:02	69138-1.RAW	5:21:02 PM	21.95			15.3	0.109	0.109	ng/L	

Total Mercury EPA1631		Operator	PC	Blanks	6.662	Calib Lqm	Conc = (Area-6.662	Run Date:	6/21/2017	Blank SD:	4.80057766				
Worksheet		Tha2601	CalibFa	190.67	Status:	QC	Warnings: 4/QC L	Run Time:	13:16:45	Blank RSD%:	72.05675233				
Method		Hg	R:	1	R:	0.9999				CF SD:	7.571643083				
Description		Hg2000J-1/0621-1								CF RSD%:	6.382653782				
Sample ID	Location	Run	Dilute	Blank	Conc (ppt)	M3%	Final Conc	Rec%	QA	Raw Data	RunEnd	Peak (Raw)	Contri (ppt)	Flags	RunCount
Clean				0.00	2.63					69007-1.RAW	8:11:34	370.35	Clean	OK	1
Clean										69008-1.RAW	8:14:25	0.00	Clean	NP	1
WS				6.66	0.00					69009-1.RAW	8:16:34	5.73	Sample	OK	1
WS				6.66	0.00					69010-1.RAW	8:22:42	4.76	Sample	OK	1
WS				6.66	0.00					69011-1.RAW	8:26:51	4.48	Sample	OK	1
SEQ-BLK1	A1			0.00	0.00					69012-1.RAW	8:30:59	7.97	Sample	OK	1
SEQ-BLK2	A2			0.00	0.01					69013-1.RAW	8:35:07	1.34	Sample	OK	1
SEQ-CAL1	A3			0.00	0.02					69014-1.RAW	8:39:16	10.08	Sample	OK	1
SEQ-CAL2	A4			6.66	0.52			104.61		69015-1.RAW	8:42:24	80.24	Sample	OK	1
SEQ-CAL3	A5			6.66	1.06			105.95		69016-1.RAW	8:47:33	155.20	Sample	OK	1
SEQ-CAL4	A6			6.66	5.05			100.88		69017-1.RAW	8:51:41	716.89	Sample	OK	1
SEQ-CAL5	A7			6.66	18.96			94.51		69018-1.RAW	8:55:50	2350.10	Sample	OK	1
SEQ-CAL6	A8			6.66	37.80			94.51		69019-1.RAW	8:59:58	5324.69	Sample	OK	1
SEQ-CAL7	A9			6.66	5.07			101.31		69020-1.RAW	9:04:07	719.22	Sample	OK	1
F706521-BLK1	A10		20	6.66	2.18					69021-1.RAW	9:08:15	32.02	Sample	OK	1
F706521-BLK2	A11		20	6.66	7.42					69022-1.RAW	9:12:24	15.68	Sample	OK	1
F706521-BLK3	A12		20	6.66	0.92					69023-1.RAW	9:16:32	13.15	Sample	OK	1
F706521-BLK4	B1		20	6.66	0.00					69024-1.RAW	9:20:40	13.73	Sample	OK	1
F706521-BLK5	B2		20	6.66	0.86					69025-1.RAW	9:24:49	12.89	Sample	OK	1
F706521-BE1	B3		20	6.66	34.26					69026-1.RAW	9:28:57	609.87	Sample	OK	1
F706521-BSD1	B4		20	6.66	34.41					69027-1.RAW	9:33:06	673.67	Sample	OK	1
F706521-BSD2	B5		400	6.66	2105.13					69028-1.RAW	9:37:14	747.34	Sample	OK	1
1706400-01	B6		400	6.66	6379.50					69029-1.RAW	9:41:23	2320.53	Sample	FB	1
1706400-02	B7		400	6.66	4700.41					69030-1.RAW	9:45:31	1691.80	Sample	OK	1
SEQ-CCV1	B8		1	6.66	4.82			95.33		69031-1.RAW	9:49:39	664.20	Sample	OK	1
SEQ-CCB1	B9		1	6.66	3.03			100		69032-1.RAW	9:53:48	10.72	Sample	OK	1
1706400-03	B10		400	6.66	3909.38					69033-1.RAW	9:57:56	1399.39	Sample	OK	1
1706400-04	B11		400	6.66	11335.27					69034-1.RAW	10:02:05	2606.93	Sample	OK	1
1706400-05	B12		400	6.66	8424.94					69035-1.RAW	10:06:13	1514.50	Sample	OK	1
1706400-06	C1		400	6.66	3090.99					69036-1.RAW	10:10:22	1663.70	Sample	OK	1
1706400-07	C2		400	6.66	1343.33					69037-1.RAW	10:14:30	476.93	Sample	OK	1
1706400-08	C3		400	6.66	3272.80					69038-1.RAW	10:18:39	1157.63	Sample	OK	1
1706400-09	C4		400	6.66	5718.92					69039-1.RAW	10:22:47	2017.65	Sample	FB	1
1706400-10	C5		400	6.66	6907.37					69040-1.RAW	10:26:55	2435.83	Sample	OK	1
1706400-11	C6		400	6.66	4266.87					69041-1.RAW	10:31:04	1507.23	Sample	OK	1
1706400-12	C7		400	6.66	3420.59					69042-1.RAW	10:35:12	1209.61	Sample	OK	1
SEQ-CCV2	C8		1	6.66	4.73			94.05		69043-1.RAW	10:39:21	668.14	Sample	OK	1
SEQ-CCB2	C9		1	6.66	0.05			100		69044-1.RAW	10:43:29	13.32	Sample	OK	1
1706400-13	C10		400	6.66	2707.11					69045-1.RAW	10:47:38	958.66	Sample	OK	1
1706400-14	C11		400	6.66	3825.27					69046-1.RAW	10:51:46	1355.46	Sample	OK	1
1706400-15	C12		400	6.66	1784.44					69047-1.RAW	10:55:55	634.21	Sample	OK	1
1706400-16	D1		400	6.66	1591.01					69048-1.RAW	11:00:03	566.16	Sample	OK	1
1706400-17	D2		400	6.66	1068.93					69049-1.RAW	11:04:11	382.68	Sample	OK	1
1706400-18	D3		400	6.66	1745.00					69050-1.RAW	11:08:20	620.55	Sample	OK	1
1706533-D4	D4		400	6.66	120.80					69051-1.RAW	11:12:28	49.04	Sample	OK	1
1706533-D5	D5		400	6.66	27464.56					69052-1.RAW	11:16:37	9565.34	Sample	OK	1
F706521-BLKP1	D6		400	6.66	5487.84					69053-1.RAW	11:20:45	1829.68	Sample	OK	1
F706521-MS1	D7		400	6.66	11129.69			203.50		69054-1.RAW	11:24:54	3920.45	Sample	OK	1
SEQ-CCV3	D8		1	6.66	4.68			91.01		69055-1.RAW	11:29:02	388.96	Sample	OK	1
SEQ-CCB3	D9		1	6.66	0.13			100		69056-1.RAW	11:33:11	24.52	Sample	OK	1
F706521-MSD1	D10		400	6.66	11542.47					69057-1.RAW	11:37:19	6366.69	Sample	OK	1
F706533-34RE1	D11		20	6.66	101.54					69058-1.RAW	11:41:27	720.82	Sample	OK	1
F706533-35RE1	D12		2500	6.66	28526.67					69059-1.RAW	11:45:36	1811.83	Sample	OK	1
F706521-MS2	A1		2500	6.66	30870.66			108.21		69060-1.RAW	11:49:44	1743.71	Sample	OK	1
F706521-MSD2	A2		2500	6.66	32159.20					69061-1.RAW	11:53:53	1319.21	Sample	OK	1
F706547-BLK1	A3		100	6.66	131.72					69062-1.RAW	11:58:01	25.97	Sample	OK	1
F706547-BLK2	A4		100	6.66	9.46					69063-1.RAW	12:02:10	19.89	Sample	OK	1
F706547-BLK3	A5		100	6.66	4.52					69064-1.RAW	12:06:18	13.58	Sample	OK	1
F706547-BSD1	A6		400	6.66	4663.31					69065-1.RAW	12:10:26	1618.85	Sample	OK	1
SEQ-CCV4	A8		1	6.66	4.84			96.72		69066-1.RAW	12:14:35	1021.30	Sample	OK	1
SEQ-CCB4	A9		1	6.66	0.07			100		69067-1.RAW	12:18:43	668.32	Sample	OK	1
F706533-01	A10		100	6.66	1873.67					69068-1.RAW	12:22:52	16.52	Sample	OK	1
										69069-1.RAW	12:27:00	2642.37	Sample	OK	1

1706533-02	A11	100	6.66	1837.72		69070-1.RAW	12:31:09	2591.81	Sample	FB	-
1706533-03	A12	100	6.66	17.58		69071-1.RAW	12:36:17	31.95	Sample	DK	-
1706533-01B	B1	100	6.66	12.23		69072-1.RAW	12:39:26	23.66	Sample	DK	-
1706533-02B	B2	100	6.66	17.02		69073-1.RAW	12:43:34	30.60	Sample	DK	-
1706533-03B	B3	100	6.66	7.02		69074-1.RAW	12:47:42	7.47	Sample	DK	-
F706547-DUP1	B4	100	6.66	1930.68		69075-1.RAW	12:51:51	2735.23	Sample	DK	-
F706547-MS1	B5	400	6.66	9510.11	479.73	69076-1.RAW	12:55:59	3280.87	Sample	FB	-
F706547-MSL1	B5	400	6.66	9257.62		69077-1.RAW	13:00:08	3252.36	Sample	FB	-
SEQ-CCV5	B7	1	6.66	4.89	97.79	69078-1.RAW	13:05:03	094.49	Sample	DK	-
SEQ-CCB5	B8	1	6.66	0.10	0.00	69079-1.RAW	13:10:11	23.78	Sample	DK	-
F706450-BLK1	B9	20	6.66	4.50		69080-1.RAW	13:20:54	38.30	Sample	DK	-
F706450-LLK2	B10	20	6.66	2.80		69081-1.RAW	13:25:03	24.94	Sample	DK	-
F706450-R1K3	B11	20	6.66	1.05		69082-1.RAW	13:29:11	13.27	Sample	DK	-
F706450-BS1	B12	20	6.66	798.59		69083-1.RAW	13:33:20	2105.03	Sample	DK	-
F706450-ESD1	C1	20	6.66	302.45		69084-1.RAW	13:37:28	2133.70	Sample	DK	-
1706136-01	C2	10000	6.66	2427420.57		69085-1.RAW	13:41:37	34185.48	Sample	FB	-
1706260-01	C3	25000	6.66	2274020.73		69086-1.RAW	13:45:45	1842.49	Sample	DK	-
1706260-02	C4	25000	6.66	5647.90		69087-1.RAW	13:49:53	60.93	Sample	DK	-
1706260-03	C5	2500	6.66	5283.56		69088-1.RAW	13:54:02	302.84	Sample	DK	-
1706260-04	C6	2500	6.66	780.37		69089-1.RAW	13:58:10	51.15	Sample	DK	-
SEQ-CCV5	C7	1	6.66	4.80	56.04	69090-1.RAW	14:02:19	666.25	Sample	DK	-
SEQ-CCB5	C8	1	6.66	0.12	0.00	69091-1.RAW	14:06:27	22.68	Sample	DK	-
F706521-DJP2	C9	200	6.66	6527.35		69092-1.RAW	14:10:35	2303.64	Sample	DK	-
1706136-01RE1	C10	100000	6.66	2663068.57		69093-1.RAW	14:14:42	3752.87	Sample	DK	-
1706260-01RE1	C11	250000	6.66	2211821.77		69094-1.RAW	14:18:52	1251.22	Sample	DK	-
1706260-02RE1	C12	2500	6.66	529.94		69095-1.RAW	14:23:01	39.66	Sample	DK	-
1706260-04RE1	D1	100	6.66	402.04		69096-1.RAW	14:27:09	573.06	Sample	DK	-
1706260-05	D2	2500	6.66	5131.08		69097-1.RAW	14:31:16	295.00	Sample	DK	-
1706260-06	D3	2500	6.66	428.34		69098-1.RAW	14:35:26	20.76	Sample	DK	-
1706260-07	D4	2500	6.66	2088.24		69099-1.RAW	14:39:35	124.22	Sample	DK	-
1706260-08	D5	2500	6.66	240.57		69100-1.RAW	14:43:43	20.64	Sample	DK	-
1706260-09	D6	2600	6.66	919.09		69101-1.RAW	14:47:52	58.38	Sample	DK	-
SEQ-CCV7	D7	1	6.66	4.73	94.55	69102-1.RAW	14:52:00	671.66	Sample	DK	-
SEQ-CCB7	D8	1	6.66	0.07	0.00	69103-1.RAW	14:56:08	16.66	Sample	DK	-
1706260-02REF2	D9	100	6.66	262.09		69104-1.RAW	15:00:17	379.35	Sample	DK	-
1706260-06REF1	D10	100	6.66	251.57		69105-1.RAW	15:04:25	391.12	Sample	DK	-
1706260-07REF1	D11	400	6.66	1925.68		69106-1.RAW	15:08:34	683.09	Sample	DK	-
1706260-08-RL1	D12	100	6.66	172.44		69107-1.RAW	15:12:42	299.24	Sample	DK	-
1706260-08REF1	E1	100	6.66	199.14		69108-1.RAW	15:16:51	1130.82	Sample	DK	-
1706260-10	A2	400	6.66	636.51		69109-1.RAW	15:20:59	195.34	Sample	DK	-
1706260-11	A3	400	6.66	531.36		69110-1.RAW	15:25:08	103.64	Sample	DK	-
1706260-12	A4	400	6.66	1905.05		69111-1.RAW	15:29:16	678.83	Sample	DK	-
1706260-13	A5	400	6.66	352.20		69112-1.RAW	15:33:24	239.54	Sample	DK	-
1706260-14	A8	400	6.66	1584.28		69113-1.RAW	15:37:33	563.82	Sample	DK	-
SEQ-CCV6	A7	1	6.66	4.78	95.50	69114-1.RAW	15:41:41	678.38	Sample	DK	-
SEQ-CCB6	A5	1	6.66	0.09	0.00	69115-1.RAW	15:45:50	19.95	Sample	DK	-
1706260-16	A9	400	6.66	602.79		69116-1.RAW	15:49:58	246.78	Sample	DK	-
1706260-18	A10	400	6.66	1425.64		69117-1.RAW	15:54:07	506.03	Sample	DK	-
1706260-17	A11	400	6.66	3030.07		69118-1.RAW	15:58:15	1687.92	Sample	DK	-
1706260-19	A12	400	6.66	2287.85		69119-1.RAW	16:02:24	811.25	Sample	DK	-
1706136-02	B1	2500	6.66	32539.54		69120-1.RAW	16:06:32	1852.24	Sample	DK	-
1706136-03	B2	2500	6.66	8734.52		69121-1.RAW	16:10:40	440.01	Sample	DK	-
1706136-04	B3	100000	6.66	2270240.23		69122-1.RAW	16:14:48	3200.24	Sample	DK	-
1706260-19	B4	2500	6.66	31431.90		69123-1.RAW	16:18:56	1776.23	Sample	DK	-
1706260-20	B5	2500	6.66	6400.64		69124-1.RAW	16:23:04	476.69	Sample	DK	-
1706260-21	B6	100000	6.66	2941635.01		69125-1.RAW	16:27:12	3160.83	Sample	FB	-
SEQ-CCV9	B7	1	6.66	4.03	90.00	69126-1.RAW	16:31:21	700.75	Sample	DK	-
SEQ-CCB9	B8	1	6.66	0.13	0.00	69127-1.RAW	16:35:29	25.40	Sample	DK	-
F706450-FL1	B9	250000	6.66	3092393.25		69128-1.RAW	16:39:38	2197.41	Sample	DK	-
F706450-MS1	B10	2500	6.66	17171.58	0.44	69129-1.RAW	16:43:46	972.09	Sample	DK	-
F706450-MSD1	B11	2500	6.66	17454.94		69130-1.RAW	16:47:54	968.82	Sample	DK	-
1706450-MS2	B12	400	6.66	8360.88		69131-1.RAW	16:52:02	3298.68	Sample	DK	-
F706450-MSR2	C1	400	6.66	5440.95		69132-1.RAW	16:56:11	3326.80	Sample	DK	-
F706450-DUP2	C2	350000	6.66	2241783.42		69133-1.RAW	17:00:20	1251.11	Sample	DK	-
SEQ-CCVA	C3	1	6.66	4.96		69134-1.RAW	17:04:28	704.87	Sample	DK	-
SEQ-CCJA	C4	1	6.66	0.15		69135-1.RAW	17:08:36	27.19	Sample	DK	-
1706654-01	C5	1	6.66	0.08		69136-1.RAW	17:12:45	15.25	Sample	DK	-
SEQ-CCVE	C6	1	6.66	4.94		69137-1.RAW	17:16:53	701.98	Sample	DK	-

SFO-CCBB	C7	1	6.96	0.11	63'38-1 RAW	1/7/21.02	21.65 Sample	OK	1
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ANALYSIS SEQUENCE

7F22010

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 6/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7F22010-IBL1	QC	1			
7F22010-IBL2	QC	2			
7F22010-IBL3	QC	3			
7F22010-CAL1	QC	4	1702602		
7F22010-CAL2	QC	5	1702603		
7F22010-CAL3	QC	6	1702604		
7F22010-CAL4	QC	7	1702605		
7F22010-CAL5	QC	8	1702606		
7F22010-ICV1	QC	9	1703679		
7F22010-CCV1	QC	10	1703679		
7F22010-CCB1	QC	11			
7F22010-CCV2	QC	12	1703679		
7F22010-CCB2	QC	13			
7F22010-CCV3	QC	14	1703679		
7F22010-CCB3	QC	15			
F706547-BLK1	QC	16			
F706547-BLK2	QC	17			
F706547-BLK3	QC	18			
F706547-BS1	QC	19			
F706547-BSD1	QC	20			
7F22010-CCV4	QC	21	1703679		
7F22010-CCB4	QC	22			
1706533-01	Hg_FSTM_TRAP_A	23			Traps
1706533-02	Hg_FSTM_TRAP_A	24			Traps
1706533-03	Hg_FSTM_TRAP_A	25			Traps
F706547-DUP1	QC	26			
F706547-MS1	QC	27			
F706547-MSD1	QC	28			
7F22010-CCV5	QC	29	1703679		
7F22010-CCB5	QC	30			

Beckins 6/22/17
 Samples Loaded By _____ Date _____

Beckins 6/22/17
 Data Processed By _____ Date _____

*loaded
6/21/17*

Due Date: 6/23/2017

ANALYSIS SEQUENCE

7F22011

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 6/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7F22011-JBL1	QC	1			
7F22011-JBL2	QC	2			
7F22011-JBL3	QC	3			
7F22011-CAL1	QC	4	1702602		
7F22011-CAL2	QC	5	1702603		
7F22011-CAL3	QC	6	1702604		
7F22011-CAL4	QC	7	1702605		
7F22011-CAL5	QC	8	1702606		
7F22011-ICV1	QC	9	1703679		
7F22011-CCV1	QC	10	1703679		
7F22011-CCB1	QC	11			
7F22011-CCV2	QC	12	1703679		
7F22011-CCB2	QC	13			
7F22011-CCV3	QC	14	1703679		
7F22011-CCB3	QC	15			
7F22011-CCV4	QC	16	1703679		
7F22011-CCB4	QC	17			
7F22011-CCV5	QC	18	1703679		
7F22011-CCB5	QC	19			
F706450-BLK1	QC	20			
F706450-BLK2	QC	21			
F706450-BLK3	QC	22			
F706450-BS1	QC	23			
F706450-BSD1	QC	24			
1706136-01	Hg-CVAFS-S-SSE-F3	25			
1706260-01	Hg-CVAFS-S-SSE-F3	26			Scan Data for Level IV
1706260-02	Hg-CVAFS-S-SSE-F3	27			Scan Data for Level IV
1706260-03	Hg-CVAFS-S-SSE-F3	28			Scan Data for Level IV
1706260-04	Hg-CVAFS-S-SSE-F3	29			Scan Data for Level IV
7F22011-CCV6	QC	30	1703679		
7F22011-CCB6	QC	31			
1706136-01RE1	Hg-CVAFS-S-SSE-F3	32			Added 6/22/2017 by BC
1706260-01RE1	Hg-CVAFS-S-SSE-F3	33			Added 6/22/2017 by BC
1706260-02RE1	Hg-CVAFS-S-SSE-F3	34			Added 6/22/2017 by BC
1706260-04RE1	Hg-CVAFS-S-SSE-F3	35			Added 6/22/2017 by BC

Due Date: 7/3/2017

ANALYSIS SEQUENCE

7F22011

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 6/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706260-05	Hg-CVAFS-S-SSE-F3	36			Scan Data for Level IV
1706260-06	Hg-CVAFS-S-SSE-F3	37			Scan Data for Level IV
1706260-07	Hg-CVAFS-S-SSE-F3	38			Scan Data for Level IV
1706260-08	Hg-CVAFS-S-SSE-F3	39			Scan Data for Level IV
1706260-09	Hg-CVAFS-S-SSE-F3	40			Scan Data for Level IV
7F22011-CCV7	QC	41	1703679		
7F22011-CCB7	QC	42			
1706260-02RE2	Hg-CVAFS-S-SSE-F3	43			Added 6/22/2017 by BC
1706260-06RE1	Hg-CVAFS-S-SSE-F3	44			Added 6/22/2017 by BC
1706260-07RE1	Hg-CVAFS-S-SSE-F3	45			Added 6/22/2017 by BC
1706260-08RE1	Hg-CVAFS-S-SSE-F3	46			Added 6/22/2017 by BC
1706260-09RE1	Hg-CVAFS-S-SSE-F3	47			Added 6/22/2017 by BC
1706260-10	Hg-CVAFS-S-SSE-F3	48			Scan Data for Level IV
1706260-11	Hg-CVAFS-S-SSE-F3	49			Scan Data for Level IV
1706260-12	Hg-CVAFS-S-SSE-F3	50			Scan Data for Level IV
1706260-13	Hg-CVAFS-S-SSE-F3	51			Scan Data for Level IV
1706260-14	Hg-CVAFS-S-SSE-F3	52			Scan Data for Level IV
7F22011-CCV8	QC	53	1703679		
7F22011-CCB8	QC	54			
1706260-15	Hg-CVAFS-S-SSE-F3	55			Scan Data for Level IV
1706260-16	Hg-CVAFS-S-SSE-F3	56			Scan Data for Level IV
1706260-17	Hg-CVAFS-S-SSE-F3	57			Scan Data for Level IV
1706260-18	Hg-CVAFS-S-SSE-F3	58			Scan Data for Level IV
1706136-02	Hg-CVAFS-S-SSE-F3	59			
1706136-03	Hg-CVAFS-S-SSE-F3	60			
1706136-04	Hg-CVAFS-S-SSE-F3	61			
1706260-19	Hg-CVAFS-S-SSE-F3	62			Scan Data for Level IV
1706260-20	Hg-CVAFS-S-SSE-F3	63			Scan Data for Level IV
1706260-21	Hg-CVAFS-S-SSE-F3	64			Scan Data for Level IV
7F22011-CCV9	QC	65	1703679		
7F22011-CCB9	QC	66			
F706450-DUP1	QC	67			
F706450-MS1	QC	68			
F706450-MSD1	QC	69			
F706450-MS2	QC	70			

Due Date: 7/3/2017

ANALYSIS SEQUENCE

7F22011

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 6/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F706450-MSD2	QC	71			
F706450-DUP2	QC	72			
7F22011-CCVA	QC	73	1703679		
7F22011-CCBA	QC	74			

[Signature] 6/22/17
Samples Loaded By Date

[Signature] 6/22/17
Data Processed By Date

10-8-8
6/21/17

ANALYSIS SEQUENCE

7F22012

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 6/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7F22012-IBL1	QC	1			
7F22012-IBL2	QC	2			
7F22012-IBL3	QC	3			
7F22012-CAL1	QC	4	1702602		
7F22012-CAL2	QC	5	1702603		
7F22012-CAL3	QC	6	1702604		
7F22012-CAL4	QC	7	1702605		
7F22012-CAL5	QC	8	1702606		
7F22012-ICV1	QC	9	1703679		
F706521-BLK1	QC	10			
F706521-BLK2	QC	11			
F706521-BLK3	QC	12			
F706521-BLK4	QC	13			
F706521-BLK5	QC	14			
F706521-BS1	QC	15			
F706521-BSD1	QC	16			
F706521-BS2	QC	17			
1706400-01	Hg-CVAFS-T-7030	18			
1706400-02	Hg-CVAFS-T-7030	19			
7F22012-CCV1	QC	20	1703679		
7F22012-CCB1	QC	21			
1706400-03	Hg-CVAFS-T-7030	22			
1706400-04	Hg-CVAFS-T-7030	23			
1706400-05	Hg-CVAFS-T-7030	24			
1706400-06	Hg-CVAFS-T-7030	25			
1706400-07	Hg-CVAFS-T-7030	26			
1706400-08	Hg-CVAFS-T-7030	27			
1706400-09	Hg-CVAFS-T-7030	28			
1706400-10	Hg-CVAFS-T-7030	29			
1706400-11	Hg-CVAFS-T-7030	30			
1706400-12	Hg-CVAFS-T-7030	31			
7F22012-CCV2	QC	32	1703679		
7F22012-CCB2	QC	33			
1706400-13	Hg-CVAFS-T-7030	34			
1706400-14	Hg-CVAFS-T-7030	35			

Due Date: 6/23/2017

ANALYSIS SEQUENCE

7F22012

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 6/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706400-15	Hg-CVAFS-T-7030	36			
1706400-16	Hg-CVAFS-T-7030	37			
1706400-17	Hg-CVAFS-T-7030	38			
1706400-18	Hg-CVAFS-T-7030	39			
1706533-04	Hg-CVAFS-T-7030	40			Fly Ash
1706533-06	Hg-CVAFS-T-7030	41			Fly Ash
F706521-DUP1	QC	42			
F706521-MS1	QC	43			
7F22012-CCV3	QC	44	1703679		
7F22012-CCB3	QC	45			
F706521-MSD1	QC	46			
1706533-04RE1	Hg-CVAFS-T-7030	47			Added 6/22/2017 by BC
1706533-06RE1	Hg-CVAFS-T-7030	48			Added 6/22/2017 by BC
F706521-MS2	QC	49			
F706521-MSD2	QC	50			
7F22012-CCV4	QC	51	1703679		
7F22012-CCB4	QC	52			
7F22012-CCV5	QC	53	1703679		
7F22012-CCB5	QC	54			
7F22012-CCV6	QC	55	1703679		
7F22012-CCB6	QC	56			
F706521-DUP2	QC	57			
7F22012-CCV7	QC	58	1703679		
7F22012-CCB7	QC	59			

Beck 6/21/17
 Samples Loaded By Date

Beck 6/21/17
 Data Processed By Date

1096-8
 6/21/17

Due Date: 6/23/2017

Failing Data Report - 7F22011

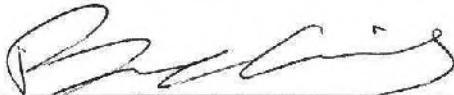
Sample ID	Analysis	Result	MRI	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1706136-01	Hg-CVAFS-S-SSE-F3	735000	3030				ng/g						FAIL-OVER	PASS	E
F706450-DUP1	Hg-CVAFS-S-SSE-F3	1157000	74300	715900	715900		ng/g				47.1	25.00	PASS-OVER	FAIL-DUP	QR-07

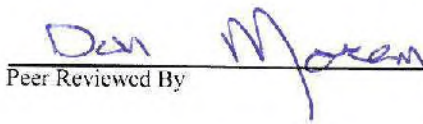
Becing 6/22/17
 Analyst Reviewed By Date

Don Moxem 6/22/17
 Peer Reviewed By Date

Failing Data Report - 7F22012

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1706533-06	Hg-CVAFS-T-7030	1910	13.9				ng/g						FAIL-OVER	PASS	E
F706521-MSD2	Hg-CVAFS-T-7030	2383	92.6	2243	1912	370.58	ng/g	127	71.00	125.00	32.9	24.00	PASS-OVER	FAIL-MSD (Rec. and RPD)	QM-02, QR-08


 Analyst Reviewed By _____ Date 6/22/17


 Peer Reviewed By _____ Date 6/22/17

PREPARATION BENCH SHEET

F706547

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 6/20/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706547-BLK1	Blank	1	40					
F706547-BLK2	Blank	1	40					
F706547-BLK3	Blank	1	40					
F706547-BS1	LCS	1	40	1701763	200			
F706547-BSD1	LCS Dup	1	40	1701763	200			
F706547-DUP1	Duplicate [1706533-01]	1	40					
F706547-MS1	Matrix Spike [1706533-01]	0.003125	0.125	1702556	100			[Spk] 1Trap->40mL, 20mL->20mL; Spiked 0.125mL
F706547-MSD1	Matrix Spike Dup [1706533-01]	0.003125	0.125	1702556	100			[Spk] 1Trap->40mL, 20mL->20mL; Spiked 0.125mL

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1702564	FSTM Lot 170426A	26-Apr-18 00:00
1702556	THg 10ng/mL Calibration Standard	26-Jul-17 00:00	1703183	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1703376		03-Oct-17 00:00
			1703377	THg Dilute 1% BrCl	
			1703613	3% SnCl2 THg reductant	28-Nov-17 00:00
			1703661	70/30 Digestion Acid	16-Dec-17 00:00
			1703696	5% BrCl	07-Nov-17 00:00

PREPARATION BENCH SHEET

F706547

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 6/20/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706533-01	V 14914	1	40	-	-	-	Traps	
1706533-02	V 14915	1	40	-	-	-	Traps	
1706533-03	V 14916	1	40	-	-	-	Traps	

PREPARATION BENCH SHEET

F706450

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-3

Prepared: 6/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706450-BLK1	Blank	0.4	125					
F706450-BLK2	Blank	0.4	125					
F706450-BLK3	Blank	0.4	125					
F706450-BS1	LCS	0.008	2.5	1604715	100			
F706450-BSD1	LCS Dup	0.008	2.5	1604715	100			
F706450-DUP1	Duplicate [1706260-01]	0.4207	125					
F706450-DUP2	AD [1706260-01]	0.4145	125					
F706450-MS1	Matrix Spike [1706260-05]	0.00006761 6	0.02	1702556	25			[Spk] 0.4226g->125mL; 125mL->125mL; Spiked 0.02mL
F706450-MS2	Matrix Spike [1706260-12]	0.0004637	0.125	1702556	100			[Spk] 0.4637g->125mL; 125mL->125mL; Spiked 0.125mL
F706450-MSD1	Matrix Spike Dup [1706260-05]	0.00006761 6	0.02	1702556	25			[Spk] 0.4226g->125mL; 125mL->125mL; Spiked 0.02mL
F706450-MSD2	Matrix Spike Dup [1706260-12]	0.0004637	0.125	1702556	100			[Spk] 0.4637g->125mL; 125mL->125mL; Spiked 0.125mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1604715	Nist 1641D 200X	18-Aug-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702556	THg 10ng/mL Calibration Standard	26-Jul-17 00:00	1702883	0.2 N BRCL MAY 2017	07-Nov-17 00:00
		26-Jul-17 00:00	1703183	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1703376		03-Oct-17 00:00
			1703377	THg Dilute 1% BrCl	
			1703590	IN KOH for SSE	11-Dec-17 00:00
			1703613	3% SnCl2 THg reductant	28-Nov-17 00:00

PREPARATION BENCH SHEET

F706450

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-3

Prepared: 6/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706136-01	1269 SB-359 (1-2)	0.413	125	-	-	-		
1706136-01RE1	1269 SB-359 (1-2)	0.413	125	-	-	-	Added 6/22/2017 by BC	Added 6/22/2017 by BC
1706136-01RE2	1269 SB-359 (1-2)	0.413	125	-	-	-	Added 6/22/2017 by BC	Added 6/22/2017 by BC
1706136-02	HgO	0.4102	125	-	-	-		
1706136-03	HgS	0.4432	125	-	-	-		
1706136-04	Hg2Cl2	0.413	125	-	-	-		
1706260-01	SB-LF1-20D-170523-42-43	0.4145	125	-	-	-	Scan Data for Level IV	
1706260-01RE1	SB-LF1-20D-170523-42-43	0.4145	125	-	-	-	Added 6/22/2017 by BC	Added 6/22/2017 by BC
1706260-02	SB-LF1-20D-170523-47.5-49	0.42	125	-	-	-	Scan Data for Level IV	
1706260-02RE1	SB-LF1-20D-170523-47.5-49	0.42	125	-	-	-	Added 6/22/2017 by BC	Added 6/22/2017 by BC
1706260-02RE2	SB-LF1-20D-170523-47.5-49	0.42	125	-	-	-	Added 6/22/2017 by BC	Added 6/22/2017 by BC
1706260-03	SB-LF1-84-170522-23-24	0.4373	125	-	-	-	Scan Data for Level IV	
1706260-04	SB-LF1-84-170522-26-27	0.4114	125	-	-	-	Scan Data for Level IV	
1706260-04RE1	SB-LF1-84-170522-26-27	0.4114	125	-	-	-	Added 6/22/2017 by BC	Added 6/22/2017 by BC
1706260-05	SB-LF1-85-170522-26-27	0.4226	125	-	-	-	Scan Data for Level IV	
1706260-06	SB-LF1-85-170522-27-28	0.4277	125	-	-	-	Scan Data for Level IV	
1706260-06RE1	SB-LF1-85-170522-27-28	0.4277	125	-	-	-	Added 6/22/2017 by BC	Added 6/22/2017 by BC
1706260-07	SB-LF1-86-170523-27-29	0.4269	125	-	-	-	Scan Data for Level IV	
1706260-07RE1	SB-LF1-86-170523-27-29	0.4269	125	-	-	-	Added 6/22/2017 by BC	Added 6/22/2017 by BC

Due Date: 7/3/2017

PREPARATION BENCH SHEET

F706450

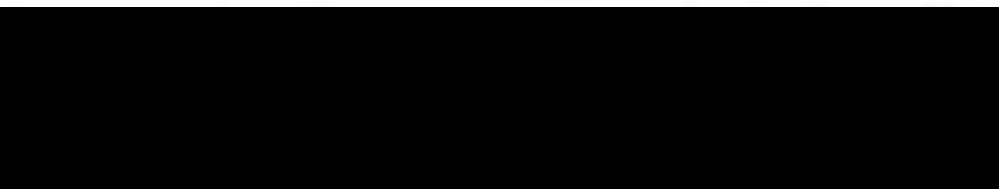
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-3

Prepared: 6/12/2017

1706260-08	SB-LF1-86A-170524-30-31	0.4021	125	-	-	-	Scan Data for Level IV	
1706260-08RE1	SB-LF1-86A-170524-30-31	0.4021	125	-	-	-	Added 6/22/2017 by BC	Added 6/22/2017 by BC
1706260-09	SB-LF1-87-170523-23-24	0.4026	125	-	-	-	Scan Data for Level IV	
1706260-09RE1	SB-LF1-87-170523-23-24	0.4026	125	-	-	-	Added 6/22/2017 by BC	Added 6/22/2017 by BC
1706260-10	SB-LF1-87-170523-27-28	0.4046	125	-	-	-	Scan Data for Level IV	
1706260-11	SB-LF1-88-170522-34-35	0.4075	125	-	-	-	Scan Data for Level IV	
1706260-12	SB-LF1-91A-170531-37-38	0.4637	125	-	-	-	Scan Data for Level IV	
1706260-13	SB-LF1-91A-170531-45-47	0.4167	125	-	-	-	Scan Data for Level IV	
1706260-14	SB-LF1-92A-170601-40-43	0.4015	125	-	-	-	Scan Data for Level IV	
1706260-15	SB-LF1-93-170524-30-32	0.4165	125	-	-	-	Scan Data for Level IV	
1706260-16	SB-LF1-99-170602-44-45	0.493	125	-	-	-	Scan Data for Level IV	
1706260-17	SB-PA-219-17522-14-15	0.4725	125	-	-	-	Scan Data for Level IV	
1706260-18	SB-PA-226-170522-10-11	0.4557	125	-	-	-	Scan Data for Level IV	
1706260-19	HgO	0.4102	125	-	-	-	Scan Data for Level IV	
1706260-20	HgS	0.4432	125	-	-	-	Scan Data for Level IV	
1706260-21	Hg2Cl2	0.413	125	-	-	-	Scan Data for Level IV	



PREPARATION BENCH SHEET

F706521

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706521-BLK1	Blank	0.5	40					
F706521-BLK2	Blank	0.5	40					
F706521-BLK3	Blank	0.5	40					
F706521-BLK4	Blank	0.6242	40					
F706521-BLK5	Blank	0.6301	40					
F706521-BS1	Blank Spike	0.5	40	1702555	40			
F706521-BS2	DORM 4	0.2526	40	1605470	252.6			
F706521-BSD1	Blank Spike dup	0.5	40	1702555	40			
F706521-DUP1	Duplicate [1706400-01]	0.5137	40					
F706521-DUP2	Duplicate [1706400-01]	0.5137	40					
F706521-MS1	Matrix Spike [1706400-01]	0.5322	40	1701763	200			
F706521-MS2	Matrix Spike [1706533-06]	0.5504	40	1701763	200			
F706521-MSD1	Matrix Spike Dup [1706400-01]	0.582	40	1701763	200			
F706521-MSD2	Matrix Spike Dup [1706533-06]	0.5397	40	1701763	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	17-Jul-18 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703183	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703376		03-Oct-17 00:00
			1703377	THg Dilute 1% BrCl	
			1702613	3% SnCl2 THg reductant	28-Nov-17 00:00
			1703644	70/30 Digestion Acid	13-Dec-17 00:00
			1703649	5% BrCl	07-Nov-17 00:00
			1703661	70/30 Digestion Acid	16-Dec-17 00:00

PREPARATION BENCH SHEET

F706521

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs	Raw Data	Sample Comments	Analysis Comments
1706400-01	OB-05_17ET100_060517_EEL_01_WB	0.5618	40	QC	-	-	MS/MSD	
1706400-02	OB-05_17ET100_060517_EEL_02_WB	0.5839	40	-	-	-		
1706400-03	OB-05_17ET100_060517_EEL_03_WB	0.5403	40	-	-	-		
1706400-04	OB-05_17ET111_060517_EEL_04_WB	0.5882	40	-	-	-		
1706400-05	OB-05_17ET111_060517_EEL_05_WB	0.5688	40	-	-	-		
1706400-06	OB-05_17ET110_060517_EEL_06_WB	0.5524	40	-	-	-		
1706400-07	OB-05_17ET110_060517_EEL_07_WB	0.5826	40	-	-	-		
1706400-08	OB-05_17ET104_060517_EEL_08_WB	0.5246	40	-	-	-		
1706400-09	OB-05_17ET104_060517_EEL_09_WB	0.5487	40	-	-	-		
1706400-10	OB-05_17ET101_060517_EEL_10_WB	0.5228	40	-	-	-		
1706400-11	OB-05_17ET101_060517_EEL_11_WB	0.5406	40	-	-	-		
1706400-12	OB-05_17ET141_060617_EEL_12_WB	0.5857	40	-	-	-		
1706400-13	OB-05_17ET141_060617_EEL_13_WB	0.5385	40	-	-	-		
1706400-14	OB-05_17ET141_060617_EEL_14_WB	0.5529	40	-	-	-		
1706400-15	OB-05_17ET141_060617_EEL_15_WB	0.5731	40	-	-	-		
1706400-16	OB-05_17ET141_060617_EEL_16_WB	0.5759	40	-	-	-		
1706400-17	OB-05_17ET141_060617_EEL_17_WB	0.5335	40	-	-	-		
1706400-18	OB-05_17ET141_060617_EEL_18_WB	0.5994	40	-	-	-		
1706533-04	V 14929	0.5845	40	-	-	-	Fly Ash	

Due Date: 6/23/2017

PREPARATION BENCH SHEET

F706521

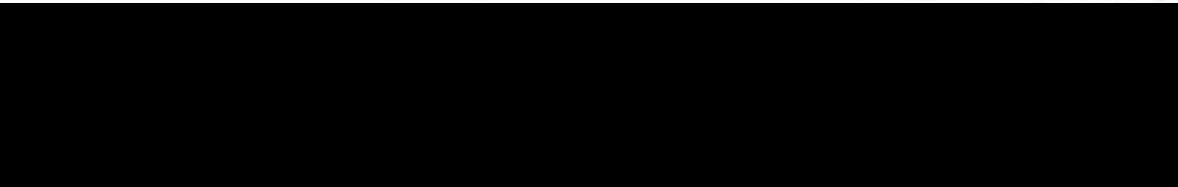
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/19/2017

1706533-04RE1	V 14929	0.5845	40	-	-	-	Added 6/22/2017 by BC	Added 6/22/2017 by BC
1706533-06	V 14931	0.5746	40	-	-	-	Fly Ash	
1706533-06RE1	V 14931	0.5746	40	-	-	-	Added 6/22/2017 by BC	Added 6/22/2017 by BC



PREPARATION BENCH SHEET

F706567

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 6/22/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Spces.	Raw Data	Sample Comments	Analysis Comments
1706654-01	Nitric Acid 1117019	100	101	-	-	-		

Work Order

Client

Project

1706654

QA only

Acid Lot Testing (TM+Hg)

PREPARATION BENCH SHEET

2600.3
 BY 6/21/17

F706450

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-3

Prepared: 6/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706450-BLK1	Blank	0.4	125					20X
F706450-BLK2	Blank	0.4	125					20X
F706450-BLK3	Blank	0.4	125					20X
F706450-BS1	LCS	0.4	125	1604715	100			20X
F706450-BSD1	LCS Dup	0.4	125	1604715	100			20X
F706450-DUP1	Duplicate [1706260-01]	0.4207	125					250,000X
F706450-MS1	Matrix Spike 1706260-05	0.4	125	1702556	25			2500X
F706450-MS2	Matrix Spike 1706260-12	0.4	125	1702556	100			400X
F706450-MSD1	Matrix Spike Dup 1706260-05	0.4	125	1702556	25			2500X
F706450-MSD2	Matrix Spike Dup 1706260-12	0.4	125	1702556	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
			1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
			1702883	0.2 N BRCL MAY 2017	07-Nov-17 00:00
			1703590	1N KOH for SSE	11-Dec-17 00:00

DUP2 - AD
 1706260-01
 250,000X

1703376
 1703377
 1703183
 1703613

PREPARATION BENCH SHEET

F706450

Eurofins Frontier Global Sciences, Inc.

200-3

BL 6/21/17

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-3

Prepared: 6/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706136-01	1269 SB-359 (1-2)	0.413	125	-	-	-		10,000x → 109,000x
1706136-02	HgO	0.4102	125	-	-	-		2500x
1706136-03	HgS	0.4432	125	-	-	-		2500x
1706136-04	Hg2Cl2	0.413	125	-	-	-		100,000x
1706260-01	SB-LF1-20D-170523-42-43	0.4145	125	-	-	-	Scan Data for Level IV	250,000x → 250,000x
1706260-02	SB-LF1-20D-170523-47.5-49	0.42	125	-	-	-	Scan Data for Level IV	250,000x → 2500x → 100x
1706260-03	SB-LF1-84-170522-23-24	0.4373	125	-	-	-	Scan Data for Level IV	2500x
1706260-04	SB-LF1-84-170522-26-27	0.4114	125	-	-	-	Scan Data for Level IV	2500x → 100x
1706260-05	SB-LF1-85-170522-26-27	0.4226	125	-	-	-	Scan Data for Level IV	5000x 2500x
1706260-06	SB-LF1-85-170522-27-28	0.4277	125	-	-	-	Scan Data for Level IV	2500x → 100x
1706260-07	SB-LF1-86-170523-27-29	0.4269	125	-	-	-	Scan Data for Level IV	2500x → 400x
1706260-08	SB-LF1-86A-170524-30-31	0.4021	125	-	-	-	Scan Data for Level IV	2500x → 100x
1706260-09	SB-LF1-87-170523-23-24	0.4026	125	-	-	-	Scan Data for Level IV	2500x → 100x
1706260-10	SB-LF1-87-170523-27-28	0.4046	125	-	-	-	Scan Data for Level IV	400x
1706260-11	SB-LF1-88-170522-34-35	0.4075	125	-	-	-	Scan Data for Level IV	4100x
1706260-12	SB-LF1-91A-170531-37-38	0.4637	125	-	-	-	Scan Data for Level IV	400x
1706260-13	SB-LF1-91A-170531-45-47	0.4167	125	-	-	-	Scan Data for Level IV	400x
1706260-14	SB-LF1-92A-170601-40-43	0.4015	125	-	-	-	Scan Data for Level IV	400x
1706260-15	SB-LF1-93-170524-30-32	0.4165	125	-	-	-	Scan Data for Level IV	400x

Due Date: 7/3/2017

PREPARATION BENCH SHEET

2600-3
 BC 6/21/17

F706450

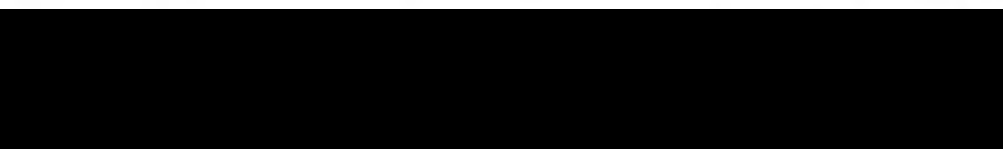
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-3

Prepared: 6/12/2017

1706260-16	SB-LF1-99-170602-44-45	0.493	125	-	-	-	Scan Data for Level IV	400x
1706260-17	SB-PA-219-17522-14-15	0.4725	125	-	-	-	Scan Data for Level IV	400x
1706260-18	SB-PA-226-170522-10-11	0.4557	125	-	-	-	Scan Data for Level IV	400x
1706260-19	HgO	0.4102	125	-	-	-	Scan Data for Level IV	2500x
1706260-20	HgS	0.4432	125	-	-	-	Scan Data for Level IV	2500x
1706260-21	Hg2Cl2	0.413	125	-	-	-	Scan Data for Level IV	400x 10000x



BL 0/21/17
2600-3

PREPARATION BENCH SHEET

F706521

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml.)	Spike ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706521-BLK1	Blank	0.5	40					20X
F706521-BLK2	Blank	0.5	40					20X
F706521-BLK3	Blank	0.5	40					20X
F706521-BLK4	Blank	0.6242	40					20X
F706521-BLK5	Blank	0.6301	40					20X
F706521-BS1	Blank Spike	0.5	40	1702555	40			20X
F706521-BS2	DORM-4	0.2526	40	1605470	3526 3526			400X
F706521-BSD1	Blank Spike dup	0.5	40	1702555	40			20X
F706521-DUP1	Duplicate [1706400-01]	0.5137	40					400X
F706521-MS1	Matrix Spike [1706400-01]	0.5322	40	1701763	200			400X
F706521-MS2	Matrix Spike [1706533-06]	0.5504	40	1701763	200			400X
F706521-MSD1	Matrix Spike Dup [1706400-01]	0.582	40	1701763	200			400X
F706521-MSD2	Matrix Spike Dup [1706533-06]	0.5397	40	1701763	200			400X

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
1605470	DORM-4	17-Jul-18 00:00	1702551	Boiling Clips for AFS prep	31-Dec-17 00:00
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703644	70/30 Digestion Acid	13-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703649	5% BrCl	07-Nov-17 00:00
			1703661	70/30 Digestion Acid	16-Dec-17 00:00

DUP 2 re run of DUP1 400X

1703376
1703377
1703613
1703183

PC 6/21/17
2600-3

PREPARATION BENCH SHEET

F706521

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs	Raw Data	Sample Comments	Analysis Comments
1706400-01	OB-05_17ET100_060517_EEL_01_WB	0.5618	40	QC	-	-	MS/MSD 400X	
1706400-02	OB-05_17ET100_060517_EEL_02_WB	0.5839	40	-	-	-	400X	
1706400-03	OB-05_17ET100_060517_EEL_03_WB	0.5403	40	-	-	-	400X	
1706400-04	OB-05_17ET111_060517_EEL_04_WB	0.5882	40	-	-	-	400X	
1706400-05	OB-05_17ET111_060517_EEL_05_WB	0.5688	40	-	-	-	400X	
1706400-06	OB-05_17ET110_060517_EEL_06_WB	0.5524	40	-	-	-	400X	
1706400-07	OB-05_17ET110_060517_EEL_07_WB	0.5826	40	-	-	-	400X	
1706400-08	OB-05_17ET104_060517_EEL_08_WB	0.5246	40	-	-	-	400X	
1706400-09	OB-05_17ET104_060517_EEL_09_WB	0.5487	40	-	-	-	400X	
1706400-10	OB-05_17ET101_060517_EEL_10_WB	0.5228	40	-	-	-	400X	
1706400-11	OB-05_17ET101_060517_EEL_11_WB	0.5406	40	-	-	-	400X	
1706400-12	OB-05_17ET141_060617_EEL_12_WB	0.5857	40	-	-	-	400X	
1706400-13	OB-05_17ET141_060617_EEL_13_WB	0.5385	40	-	-	-	400X	
1706400-14	OB-05_17ET141_060617_EEL_14_WB	0.5529	40	-	-	-	400X	
1706400-15	OB-05_17ET141_060617_EEL_15_WB	0.5731	40	-	-	-	400X	
1706400-16	OB-05_17ET141_060617_EEL_16_WB	0.5759	40	-	-	-	400X	
1706400-17	OB-05_17ET141_060617_EEL_17_WB	0.5335	40	-	-	-	400X	
1706400-18	OB-05_17ET141_060617_EEL_18_WB	0.5994	40	-	-	-	400X	
1706533-04	V 14929	0.5845	40	-	-	-	Fly Ash 400X 250X 2500X	

Due Date: 6/23/2017

PREPARATION BENCH SHEET

BL 6/21/17
2600-3

F706521

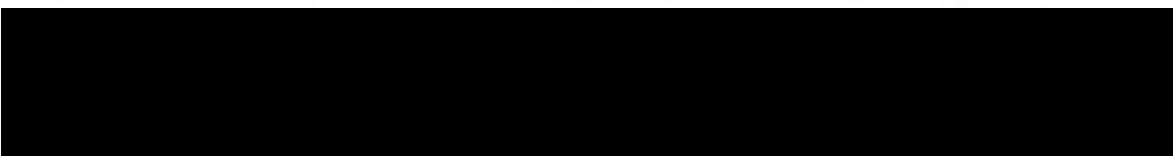
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/19/2017

1706533-06	V 14931	0.5746	40	-	-	-	Fly Ash	400 x 707	
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Technician: Duyen Batch#: F706521 Date: 6/19/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____
 Balance#: 19 Calibrated? Yes No Therm.#: 14545 Vial Type: Glass Teflon
 Calibrated? Yes No
 *Time in: 13:10 Actual Temp. (raw): 74.0 °C w/ CF: 74.1 °C
 Time out: 15:10 Actual Temp. (raw): 78.0 °C w/ CF: 78.1 °C
 *Time in can't begin before target temperature is reached
 Final vol.: 40 mL (LIMS ID: 17063649) Spike vol.: 200 µL (LIMS ID: 1702555)
 Spike Witness: DM 6/19/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: Mu 11619 Calibration Date: 6-13-17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1703644, 1703661 Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Fixed
 Glass Vial # 000662879 Boiling Chip lot # 1702551 *Hotblock Position: B, J

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F706521 Blk1	0.5585	23	1706400-12	0.5857	B52 DOR14
2	F706521 Blk2	0.5418	24	1706400-13B	0.5385	1605470
3	F706521 Blk3	0.5013	25	1706400-14B	0.5529	
4	F706521 B51	0.5128	26	1706400-15	0.5731	Comments
5	F706521 B501	0.5332	27	1706400-16	0.5759	F706521
6	F706521 B52	0.2526	28	1706400-17	0.5335	B51 B501
7	F706521 Dup1	0.5137	29	1706400-18	0.5994	= 100ng/mL
8	F706521 MS1	0.5322	30	1706553-04	0.5895	= 40µg LIMS ID 1702555
9	F706521 MS01	0.5820	31	1706553-06	0.5746	F706521
10	F706521 MS2	0.5504	32	F706521 Blk4	0.6242	MS1 MS01
11	F706521 MS02	0.5397	33	F706521 Blk5	0.6301	1706400-01
12	1706400-01B	0.5618	34			F706521
13	1706400-02B	0.5488	35			Dup1 1706400-01
14	1706400-03B	0.5403	36			MS2 MS02 4/24/17
15	1706400-04	0.5882	37			1706553-04
16	1706400-05	0.5688	38			06
17	1706400-06	0.5524	39			1706400-02B
18	1706400-07	0.5826	40			= 0.5839(g)
19	1706400-08	0.5246	41			F706521 Blanks
20	1706400-09	0.5487	42			4.5
21	1706400-10	0.5228	43			Prep Blank 4
22	1706400-11	0.5406	44			Post Blank 5

PREPARATION BENCH SHEET

82-6/21/17

F706547

2600-3

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 6/20/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706547-BLK1	Blank	1	40					100x
F706547-BLK2	Blank	1	40					100x
F706547-BLK3	Blank	1	40					100x
F706547-BS1	LCS	1	40	1701763	200			400x
F706547-BSD1	LCS Dup	1	40	1701763	200			400x

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1702564	FSTM Lot 170426A	26-Apr-18 00:00
			1703661	70/30 Digestion Acid	16-Dec-17 00:00
			1703696	5% BrCl	07-Nov-17 00:00

DUP 1706533-01 100x
 MSI 1706533-01 100µL 1702556 400x
 MSD1 1706533-01 100µL 1702556 400x

1703376
 1703377
 1703613
 1703183

PREPARATION BENCH SHEET

BCL 6/24/17
2600-3

F706547

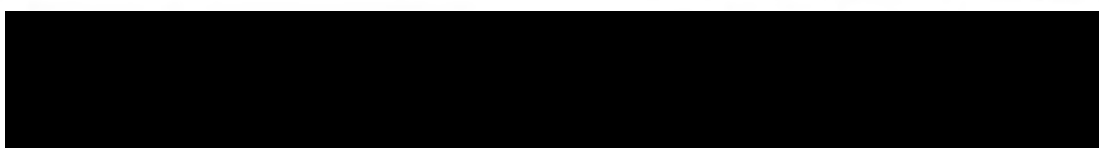
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 6/20/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments
1706533-01	V 14914	1	40	-	-	-	Traps 100X	100X
1706533-02	V 14915	1	40	-	-	-	Traps 100X	100X
1706533-03	V 14916	1	40	-	-	-	Traps 100X	100X



Trap Digestions

Name: PZ Date: 6/20/17 Batch ID: F706547
 Work Order(s): 1706533 Analysis: Total Hg Other _____
 Sample Matrix: FSTM KCl PHg Plug Other _____
 Prep: 70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)
 start time: 16:14, start temp (°C): 58.0 (raw) 57.8 (w/ CF)
 end time: 18:14, end temp (°C): 60.0 (raw) 59.2 (w/ CF) Timer? Yes No
 5% BrCl Oxidation (EFGS-031) start time: _____ (allow samples to sit for at least 4 hr before analysis)
 Other _____

Sample ID Number	Digest vol. (mL)		
F706547-BLW1	40		
F706547-BLW2	40		
F706547-BLW3	40		
F706547-B51	40		
F706547-B5D1	40		
1706533-01A	40		
1706533-01B	40		
1706533-02A	40		
1706533-02B	40		
1706533-03A	40		
1706533-03B	40		
DMW 6-20-17			

Spike ID: 1701763
 Spike Amount (µL): 200
 Spike Witness: DMW 6/20/17
 BrCl ID: 1703696
 70/30: 1703661
 Other: NA
 Thermometer: 14545
 Dispensers: 02K27494
 04N73497
 Other 15406623
 Pipette ID: MW11619
 Cal. Date: 6-20-17
 Vials and Jars lot# 00000000
 Trap Material Lot#: 1702564
 Loader Mass Verified: Yes No
 Comments:
 ALL TRAPS UNSPIKED. DMW 6-20-17
 Brought up to volume
 by CW 6/21/17.

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7F22010, 7F22011, 7F22012
Reviewer:	0	Dataset ID(s):	THg26002-170621-1
Date:	6/22/2017	WO (s) #:	VARIOUS
Batch #(s):	F706450, F706547, F706519		0

Analyst Initials BC Reviewer Initials DM

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF ($\leq 15\%$) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: underspiked MSD, failing DUP samples off curve
13. Are the individual Preparation Blanks < PQL or < 2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or < 2.2xMDL for WI, note which PB(s) are above control limit: _____
 (b) Is the mean PB < PQL or < 2.2xMDL for WI (for appropriate qualification)? YES NO
 (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
 (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or < 2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7F22010, 7F22011, 7F22012
Reviewer:	0	Dataset ID(s):	THg26002-170621-1
Date:	6/22/2017	WO (s) #:	VARIOUS
Batch #(s):	F706450, F706547, F706519		0

Analyst Initials BC Reviewer Initials DM

- 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? YES NO
 Comments: _____

- 21. Are all samples within instrument calibration range? (or at minimum dilution size) PASS FAIL
 Comments: _____

- 22. Are the samples run at the correct dilution level for the method? YES NO
 Comments: _____

- 23. Dissolved < Total (if applicable) YES NO N/A
 Comments: _____

- 24. Effluent < Influent (visually confirm if needed) YES NO N/A
 Comments: _____

- 25. Are re-runs noted with reason? YES NO N/A
 Comments: _____

- 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? YES NO N/A
 Comments: _____

- 27. Is the B trap <5% A Traps YES NO N/A
 Comments: _____

- 28. Are spiked trap recoveries 75-125% of true value? YES NO N/A
 Comments: _____

- 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
 Comments: _____

- 30. Have re-extracts been created for non-reportable samples? YES NO N/A
- 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. YES NO N/A
- 32. Does the data set need scanning? YES NO N/A
- 33. Does the dataset have an LOQ/LOQ or DOC? YES NO N/A
- 34. Water samples: has the preservation log been included in dataset for final volume verification? YES NO N/A
- 35. Water samples-is the final volume correct in the sequence? YES NO N/A

Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- 36. Date of analyst IDOC/CDOC: 1/11/17, 1/27/17 IDOC/CDOC within last 12 months? YES NO
- 37. Date of analyst's SOP reading for method: 5/20/17 Current SOP revision read? YES NO
- 38. Date of LOD: 4/26/17, 5/19/17 LOD within last 3 months? YES NO
- 39. Date of LOQ: 4/26/17, 5/19/17 LOQ within last 3 months? YES NO

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G06014

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *pc* 7/6/17 Analyzed: 7/5/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G06014-IBL1 ✓	QC	1			
7G06014-IBL2 ✓	QC	2			
7G06014-IBL3 ✓	QC	3			
7G06014-CAL1 ✓	QC	4	1702602 ✓		
7G06014-CAL2 ✓	QC	5	1702603 ✓		
7G06014-CAL3 ✓	QC	6	1702604 ✓		
7G06014-CAL4 ✓	QC	7	1702605 ✓		
7G06014-CAL5 ✓	QC	8	1702606 ✓		
7G06014-CAL6 ✓	QC	9	1702603 ✓		
7G06014-ICV1 ✓	QC	10	1703679 ✓		
F706598-BLK1 ✓	QC	11			
F706598-BLK2 ✓	QC	12			
F706598-BLK3 ✓	QC	13			
F706598-BLK4 ✓	QC	14			
F706598-BLK5 ✓	QC	15			
F706598-BLK6 ✓	QC	16			
F706598-BS1 ✓	QC	17			
F706598-BSD1 ✓	QC	18			
F706598-BS2 ✓	QC	19			
1706398-01 ✓	Hg-CVAFS-T-7030	20			
7G06014-CCV1 ✓	QC	21	1703679 ✓		
7G06014-CCB1 ✓	QC	22			
1706399-21 ✓	Hg-CVAFS-T-7030	23			
1706400-19 ✓	Hg-CVAFS-T-7030	24			
1706400-20 ✓	Hg-CVAFS-T-7030	25			
1706443-01 ✓	Hg-CVAFS-T-7030	26			Scan all data for level IV report
F706598-DUP1 ✓	QC	27			
F706598-MS1 ✓	QC	28			
F706598-MSD1 ✓	QC	29			
7G06014-CCV2 ✓	QC	30	1703679 ✓		
7G06014-CCB2 ✓	QC	31			

pc 7/6/17
 Samples Loaded By _____ Date _____

pc 7/6/17
 Data Processed By _____ Date _____

10 added
 7/5/17
pc

Due Date: 7/12/2017

PREPARATION BENCH SHEET

F706598

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706598-BLK1	Blank	0.25	20					
F706598-BLK2	Blank	0.25	20					
F706598-BLK3	Blank	0.25	20					
F706598-BLK4	Pre homogenization blank 1706400	0.2731	20					
F706598-BLK5	Post homogenization blank 1706400	0.2699	20					
F706598-BLK6	Rinse Blank 1706443	0.2573	20					
F706598-BS1	LCS	0.25	20	1702555	20			
F706598-BS2	DORM4	0.1292	20	1703305	129			
F706598-BSD1	LCS Dup	0.25	20	1702555	20			
F706598-DUP1	Duplicate [1706398-01]	0.2765	20					
F706598-MS1	Matrix Spike [1706398-01]	0.2684	20	1701763	100			
F706598-MSD1	Matrix Spike Dup [1706398-01]	0.2667	20	1701763	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703305	DORM-4	29-May-20 00:00	1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703377	THg Dilute 1% BrCl	
			1703873	3% SnCl ₂ THg reductant	19-Dec-17 00:00
			1703885	70/30 Digestion Acid	25-Dec-17 00:00
			1703911	5% BrCl	18-Dec-17 00:00

PREPARATION BENCH SHEET

F706598

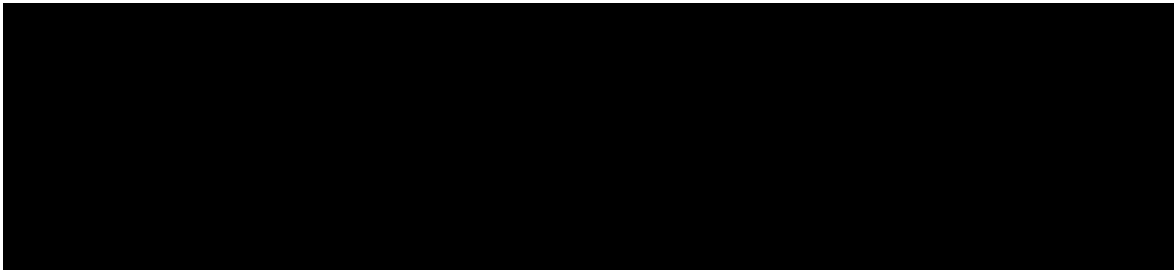
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706398-01	OV-04_17ET015_060917_EEL_01_WB	0.2698	20	QC	-	-	MS/MSD	
1706399-21	HORSESHOE CRAB_060717_EEL_BAIT	0.262	20	-	-	-		
1706400-19	OB-05_17ET141_060617_EEL_19_WB	0.2855	20	-	-	-		
1706400-20	OB-05_17ET141_060617_EEL_20_WB	0.2924	20	-	-	-		
1706443-01	OL-2611-01	0.2559	20	-	-	-	Scan all data for level IV report	



PREPARATION BENCH SHEET

2600.2
BC 7/5/17

F706598

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F706598-BLK1	Blank	0.25	20					20X -
F706598-BLK2	Blank	0.25	20					20X -
F706598-BLK3	Blank	0.25	20					20X -
F706598-BLK4	Pre homogenization blank 1706400	0.2731	20					20X -
F706598-BLK5	Post homogenization blank 1706400	0.2699	20					20X -
F706598-BLK6	Rinse Blank 1706443	0.2573	20					20X -
F706598-BS1	LCS	0.25	20	1702555	20			20X -
F706598-BS2	DORM4	0.1292	20	1703305	129			400X -
F706598-BSD1	LCS Dup	0.25	20	1702555	20			20X -
F706598-DUP1	Duplicate [1706398-01]	0.2765	20					400X -
F706598-MS1	Matrix Spike [1706398-01]	0.2684	20	1701763	100			400X -
F706598-MSD1	Matrix Spike Dup [1706398-01]	0.2667	20	1701763	100			400X -

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703885	70/30 Digestion Acid	25-Dec-17 00:00
1703305	DORM-4	29-May-20 00:00	1703911	5% BrCl	18-Dec-17 00:00

1703873
1703376
1703377
1703182

2600-2
BC 7/5/17

PREPARATION BENCH SHEET

F706598

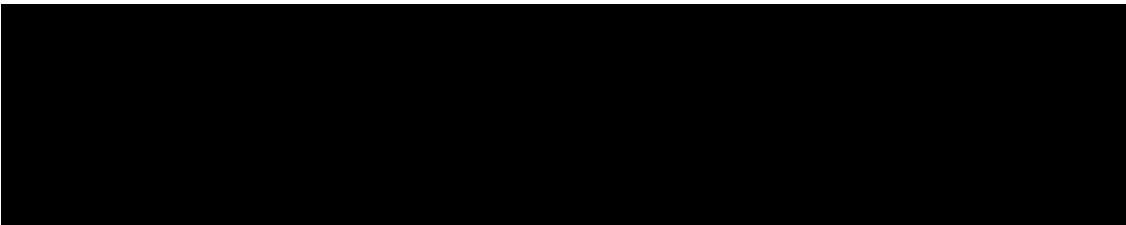
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 6/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706398-01	OV-04_17ET015_060917_EEL_01_WB	0.2698	20	QC	-	-	MS/MSD	400X /
1706399-21	HORSESHOE CRAB_060717_EEL_BAIT	0.262	20	-	-	-		400X /
1706400-19	OB-05_17ET141_060617_EEL_19_WB	0.2855	20	-	-	-		400X /
1706400-20	OB-05_17ET141_060617_EEL_20_WB	0.2924	20	-	-	-		400X /
1706443-01	OL-2611-01	0.2559	20	-	-	-	Scan all data for level IV report	100X /



Technician: AMB Batch#: F706598 Date: 6/28/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: 140418015 Calibrated? Yes No
 *Time in: 1825 Actual Temp. (raw): 75.4 °C w/ CF: 74.9 °C 75.0
 Time out: 2025 Actual Temp. (raw): 76.6 °C w/ CF: 75.7 °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1703911) Spike vol.: 100 µL (LIMS ID: 1701763)
 Spike Witness: AMB 6/28/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 6-27-17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1703885 Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 00066804 Boiling Chip lot # 1702551 *Hotblock Position: NZ

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F706598-BLK1	0.2838	23			BS2 = DORMA
2	F706598-BLK2	0.2953	24			
3	F706598-BLK3	0.2633	25			1605470 ^{AMB} 6-28-17 1703305
4	F706598-BLK4	0.2731	26			Comments
5	F706598-BLK5	0.2699	27			BLK4+5:
6	F706598-BLK6	0.2573	28			PRE+POST HOMOGEN.
7	F706598-BS1	0.2609	29			BLANKS 1706400.
8	F706598-BSD1	0.2637	30			BLK6: Filter blank for 1706443.
9	F706598-BS2	0.1292	31			DUP1, MS1, MSD1:
10	1706398-01	0.2698	32			1706398-01
11	F706598-MS1	0.2684	33			BS1/BSD1 spiked w/ 20µL of 100 ng/mL
12	F706598-MSD1	0.2667	34			
13	F706598-DUP1	0.2705	35			LIMS: 1702555
14	1706399-21	0.2620	36			Digested ~2.5g sample in 20mL vials due to low volume on sample 1706398-01.
15	1706400-19	0.2855	37			
16	1706400-20	0.2924	38			AMB 6-28-17
17	1706443-01	0.2559	39			
18			40			
19			41			
20			42			
21			43			
22			44			

Failing Data Report - 7G06014

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Beckins 7/6/17
Analyst Reviewed By Date

PLB 7/6/17
Peer Reviewed By Date



Frontier Global Sciences

THg26002-170705-1

Analysis Datasheet for Total Mercury

Date of Analysis: July 05, 2017

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7G06014, 7G06015, 7G06016

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	148.56 units	297.12	130.54 units	261.08	105.1 %Rec
SEQ-CAL2	0						
SEQ-CAL3	1	5.00 ng/L	1218.97 units	243.79	1200.95 units	240.19	96.7 %Rec
SEQ-CAL4	1	20.00 ng/L	4640.70 units	232.04	4622.68 units	231.13	93.1 %Rec
SEQ-CAL5	1	40.00 ng/L	9404.91 units	235.12	9386.89 units	234.67	94.5 %Rec
SEQ-CAL6	1	1.00 ng/L	292.70 units	292.70	274.68 units	274.68	110.6 %Rec
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 248.35 +/- 18.74 7.5% RSD 260.15

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	18.02 units	±1.56	0.07 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.987 ng/L	±0.457
BLK	2	3	15.677 ng/L	±13.543
BLK	3	3	2.713 ng/L	±1.484
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?						
Hg2600-2	BC	CAL	SEQ-IBL1	1	7/5/2017 8:54:35	80283-1.RAW	8:54:35 AM	19.80				1.8	0.007	0.007	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	7/5/2017 8:58:43	80284-1.RAW	8:58:43 AM	17.35				-0.7	-0.003	-0.003	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	7/5/2017 9:02:52	80285-1.RAW	9:02:52 AM	16.91				-1.1	-0.004	-0.004	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	7/5/2017 9:07:00	80286-1.RAW	9:07:00 AM	148.56				130.5	0.526	0.526	ng/L	
Hg2600-2	BC	SAM	*SEQ-CAL2	1	7/5/2017 9:11:08	80287-1.RAW	9:11:08 AM	423.90			X	405.9	1.634	1.634	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	7/5/2017 9:15:17	80288-1.RAW	9:15:17 AM	1218.97				1201.0	4.836	4.836	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	7/5/2017 9:19:25	80289-1.RAW	9:19:25 AM	4640.70				4622.7	18.613	18.613	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	7/5/2017 9:23:34	80290-1.RAW	9:23:34 AM	9404.91				9386.9	37.797	37.797	ng/L	
Hg2600-2	BC	SAM	WS	1	7/5/2017 9:31:45	80292-1.RAW	9:31:45 AM	1399.25			X	1381.2	5.562	0.000	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL6	1	7/5/2017 9:35:54	80293-1.RAW	9:35:54 AM	292.70				274.7	1.106	1.106	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	7/5/2017 9:40:02	80291-2.RAW	9:40:02 AM	1254.27				1236.3	4.978	4.978	ng/L	
Hg2600-2	BC	BLK	F706598-BLK1	20	7/5/2017 9:44:11	80294-1.RAW	9:44:11 AM	36.82	1			18.8	0.076	1.514	ng/L	
Hg2600-2	BC	BLK	F706598-BLK2	20	7/5/2017 9:48:19	80295-1.RAW	9:48:19 AM	26.95	1			8.9	0.036	0.720	ng/L	
Hg2600-2	BC	BLK	F706598-BLK3	20	7/5/2017 9:52:27	80296-1.RAW	9:52:27 AM	27.03	1			9.0	0.036	0.726	ng/L	
Hg2600-2	BC	SAM	*F706598-BLK4	20	7/5/2017 9:56:36	80297-1.RAW	9:56:36 AM	24.53	1			6.5	-0.023	-0.462	ng/L	
Hg2600-2	BC	SAM	*F706598-BLK5	20	7/5/2017 10:00:44	80298-1.RAW	10:00:44 AM	23.07	1			5.1	-0.029	-0.580	ng/L	
Hg2600-2	BC	SAM	*F706598-BLK6	20	7/5/2017 10:04:53	80299-1.RAW	10:04:53 AM	24.32	1			6.3	-0.024	-0.479	ng/L	
Hg2600-2	BC	SAM	F706598-BS1	20	7/5/2017 10:09:01	80300-1.RAW	10:09:01 AM	1206.58	1			1188.6	4.736	94.730	ng/L	
Hg2600-2	BC	SAM	F706598-BSD1	20	7/5/2017 10:13:10	80301-1.RAW	10:13:10 AM	1161.89	1			1143.9	4.557	91.131	ng/L	
Hg2600-2	BC	SAM	F706598-BS2	400	7/5/2017 10:17:18	80302-1.RAW	10:17:18 AM	1416.31	1			1398.3	5.628	2251.130	ng/L	
Hg2600-2	BC	SAM	1706398-01	400	7/5/2017 10:21:26	80303-1.RAW	10:21:26 AM	2578.96	1			2560.9	10.309	4123.720	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	7/5/2017 10:25:35	80304-1.RAW	10:25:35 AM	1250.33				1232.3	4.962	4.962	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	7/5/2017 10:29:43	80305-1.RAW	10:29:43 AM	27.91				9.9	0.040	0.040	ng/L	
Hg2600-2	BC	SAM	1706399-21	400	7/5/2017 10:33:52	80306-1.RAW	10:33:52 AM	505.09	1			487.1	1.959	783.499	ng/L	
Hg2600-2	BC	SAM	1706400-19	400	7/5/2017 10:38:00	80307-1.RAW	10:38:00 AM	2704.06	1			2686.0	10.813	4325.209	ng/L	
Hg2600-2	BC	SAM	1706400-20	400	7/5/2017 10:42:08	80308-1.RAW	10:42:08 AM	2021.83	1			2003.8	8.066	3226.394	ng/L	
Hg2600-2	BC	SAM	1706443-01	100	7/5/2017 10:46:17	80309-1.RAW	10:46:17 AM	1626.48	1			1608.5	6.467	646.669	ng/L	
Hg2600-2	BC	SAM	F706598-DUP1	400	7/5/2017 10:50:25	80310-1.RAW	10:50:25 AM	2522.53	1			2504.5	10.082	4032.833	ng/L	
Hg2600-2	BC	SAM	F706598-MS1	400	7/5/2017 10:54:34	80311-1.RAW	10:54:34 AM	5390.11	1			5372.1	21.629	8651.420	ng/L	
Hg2600-2	BC	SAM	F706598-MSD1	400	7/5/2017 10:58:42	80312-1.RAW	10:58:42 AM	5413.33	1			5395.3	21.722	8688.819	ng/L	
Hg2600-2	BC	BLK	F707257-BLK1	100	7/5/2017 11:06:42	80313-1.RAW	11:06:42 AM	95.67	1			77.7	0.313	31.266	ng/L	
Hg2600-2	BC	BLK	F707257-BLK2	100	7/5/2017 11:10:50	80314-1.RAW	11:10:50 AM	40.24	2			22.2	0.089	8.947	ng/L	
Hg2600-2	BC	BLK	F707257-BLK3	100	7/5/2017 11:14:59	80315-1.RAW	11:14:59 AM	34.95	2			16.9	0.068	6.817	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	7/5/2017 11:19:07	80316-1.RAW	11:19:07 AM	1274.13				1256.1	5.058	5.058	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	7/5/2017 11:23:16	80317-1.RAW	11:23:16 AM	35.26				17.2	0.069	0.069	ng/L	
Hg2600-2	BC	SAM	F707257-BS1	400	7/5/2017 11:27:24	80318-1.RAW	11:27:24 AM	1182.74	2			1164.7	4.651	1860.247	ng/L	
Hg2600-2	BC	SAM	WS	1	7/5/2017 11:34:14	80320-1.RAW	11:34:14 AM	121.88		X		103.9	0.418	0.000	ng/L	
Hg2600-2	BC	SAM	F707257-BSD1	400	7/5/2017 11:38:22	80319-2.RAW	11:38:22 AM	1152.69	2			1134.7	4.530	1811.848	ng/L	
Hg2600-2	BC	SAM	1706889-01	2500	7/5/2017 11:42:31	80321-1.RAW	11:42:31 AM	5372.26	2			5354.2	21.553	53882.180	ng/L	
Hg2600-2	BC	SAM	1706889-02	2500	7/5/2017 11:46:39	80322-1.RAW	11:46:39 AM	5290.45	2			5272.4	21.223	53058.648	ng/L	
Hg2600-2	BC	SAM	1707031-01	2500	7/5/2017 11:50:49	80323-1.RAW	11:50:49 AM	1322.31	2			1304.3	5.246	13113.812	ng/L	
Hg2600-2	BC	SAM	1707031-02	2500	7/5/2017 11:54:58	80324-1.RAW	11:54:58 AM	1937.56	2			1919.5	7.723	19307.057	ng/L	
Hg2600-2	BC	SAM	1707032-01	2500	7/5/2017 11:59:07	80325-1.RAW	11:59:07 AM	1254.57	2			1236.6	4.973	12431.915	ng/L	
Hg2600-2	BC	SAM	1707032-02	2500	7/5/2017 12:03:16	80326-1.RAW	12:03:16 PM	1373.91	2			1355.9	5.453	13633.238	ng/L	
Hg2600-2	BC	SAM	1707033-01	2500	7/5/2017 12:07:24	80327-1.RAW	12:07:24 PM	994.68	2			976.7	3.926	9815.762	ng/L	
Hg2600-2	BC	SAM	1707033-02	2500	7/5/2017 12:11:33	80328-1.RAW	12:11:33 PM	916.77	2			898.8	3.613	9031.489	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	7/5/2017 12:15:41	80329-1.RAW	12:15:41 PM	1261.88				1243.9	5.008	5.008	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	7/5/2017 12:19:50	80330-1.RAW	12:19:50 PM	37.26				19.2	0.077	0.077	ng/L	
Hg2600-2	BC	SAM	1706889-01B	100	7/5/2017 12:23:58	80331-1.RAW	12:23:58 PM	64.34	2			46.3	0.030	2.974	ng/L	
Hg2600-2	BC	SAM	1706889-02B	100	7/5/2017 12:28:06	80332-1.RAW	12:28:06 PM	91.53	2			73.5	0.139	13.922	ng/L	
Hg2600-2	BC	SAM	1707031-01B	100	7/5/2017 12:32:15	80333-1.RAW	12:32:15 PM	36.55	2			18.5	-0.082	-8.216	ng/L	
Hg2600-2	BC	SAM	1707031-02B	100	7/5/2017 12:36:23	80334-1.RAW	12:36:23 PM	49.21	2			31.2	-0.031	-3.118	ng/L	
Hg2600-2	BC	SAM	1707032-01B	100	7/5/2017 12:40:32	80335-1.RAW	12:40:32 PM	61.27	2			43.3	0.017	1.738	ng/L	
Hg2600-2	BC	SAM	1707032-02B	100	7/5/2017 12:44:40	80336-1.RAW	12:44:40 PM	93.10	2			75.1	0.146	14.555	ng/L	
Hg2600-2	BC	SAM	1707033-01B	100	7/5/2017 12:48:48	80337-1.RAW	12:48:48 PM	40.46	2			22.4	-0.066	-6.641	ng/L	
Hg2600-2	BC	SAM	1707033-02B	100	7/5/2017 12:52:57	80338-1.RAW	12:52:57 PM	50.13	2			32.1	-0.027	-2.747	ng/L	
Hg2600-2	BC	SAM	1706889-01C	2500	7/5/2017 12:57:05	80339-1.RAW	12:57:05 PM	5322.01	2			5304.0	21.351	53376.344	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	SAM	1706889-02C	2500	7/5/2017 13:01:14	80340-1.RAW	1:01:14 PM	5084.02	2						
Hg2600-2	BC	CAL	SEQ-CCV4	1	7/5/2017 13:05:23	80341-1.RAW	1:05:23 PM	1313.78			5066.0	20.392	50980.644	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	7/5/2017 13:09:33	80342-1.RAW	1:09:33 PM	50.40			1295.8	5.217	5.217	ng/L	
Hg2600-2	BC	SAM	1707032-01C	2500	7/5/2017 13:13:41	80343-1.RAW	1:13:41 PM	2792.08	2		32.4	0.130	0.130	ng/L	
Hg2600-2	BC	SAM	1707032-02C	2500	7/5/2017 13:17:49	80344-1.RAW	1:17:49 PM	2817.75	2		2774.1	11.164	27909.087	ng/L	
Hg2600-2	BC	SAM	1707033-01C	2500	7/5/2017 13:21:58	80345-1.RAW	1:21:58 PM	2731.70	2		2799.7	11.267	28167.491	ng/L	
Hg2600-2	BC	SAM	1707033-02C	2500	7/5/2017 13:26:06	80346-1.RAW	1:26:06 PM	2736.70	2		2713.7	10.921	27301.279	ng/L	
Hg2600-2	BC	SAM	F707257-DUP1	2500	7/5/2017 13:30:15	80347-1.RAW	1:30:15 PM	1366.77	2		2718.7	10.941	27351.611	ng/L	
Hg2600-2	BC	SAM	F707257-MS1	2500	7/5/2017 13:34:23	80348-1.RAW	1:34:23 PM	6175.25	2		1348.8	5.425	13561.364	ng/L	
Hg2600-2	BC	SAM	F707257-MSD1	2500	7/5/2017 13:38:32	80349-1.RAW	1:38:32 PM	6485.45	2		6157.2	24.786	61965.388	ng/L	
Hg2600-2	BC	SAM	EFGS07654 tv 200ng	400	7/5/2017 13:48:37	80350-1.RAW	1:48:37 PM	3187.73		X	6467.4	26.035	65087.982	ng/L	
Hg2600-2	BC	SAM	EFGS10049 tv 200ng	400	7/5/2017 13:52:46	80351-1.RAW	1:52:46 PM	3172.51		X	3169.7	12.763	5105.205	ng/L	
Hg2600-2	BC	SAM	EFGS07879 tv 200ng	400	7/5/2017 13:56:54	80352-1.RAW	1:56:54 PM	3085.97		X	3154.5	12.702	5080.691	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	7/5/2017 14:01:03	80353-1.RAW	2:01:03 PM	1345.22			3068.0	12.353	4941.308	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	7/5/2017 14:05:11	80354-1.RAW	2:05:11 PM	53.60			1327.2	5.344	5.344	ng/L	
Hg2600-2	BC	SAM	EFGS07922 tv 200ng	400	7/5/2017 14:09:20	80355-1.RAW	2:09:20 PM	2976.22		X	35.6	0.143	0.143	ng/L	
Hg2600-2	BC	BLK	F706635-BLK1	20	7/5/2017 14:13:28	80356-1.RAW	2:13:28 PM	71.80		3 X	2958.2	11.911	4764.542	ng/L	
Hg2600-2	BC	BLK	F706635-BLK2	20	7/5/2017 14:17:36	80357-1.RAW	2:17:36 PM	47.73		3 X	53.8	0.217	4.331	ng/L	
Hg2600-2	BC	BLK	F706635-BLK3	20	7/5/2017 14:21:45	80358-1.RAW	2:21:45 PM	35.60		3 X	29.7	0.120	2.393	ng/L	
Hg2600-2	BC	SAM	F706635-BS1	20	7/5/2017 14:25:53	80359-1.RAW	2:25:53 PM	1222.48		3 X	17.6	0.071	1.416	ng/L	
Hg2600-2	BC	SAM	F706635-BSD1	20	7/5/2017 14:30:02	80360-1.RAW	2:30:02 PM	1279.08		3 X	1204.5	4.850	96.996	ng/L	
Hg2600-2	BC	SAM	1706489-01	20	7/5/2017 14:34:10	80361-1.RAW	2:34:10 PM	108.85		3 X	1261.1	5.078	101.555	ng/L	
Hg2600-2	BC	SAM	1706489-02	20	7/5/2017 14:38:18	80362-1.RAW	2:38:18 PM	112.85		3 X	90.8	0.366	7.315	ng/L	
Hg2600-2	BC	SAM	1706489-03	20	7/5/2017 14:42:27	80363-1.RAW	2:42:27 PM	116.32		3 X	94.8	0.382	7.637	ng/L	
Hg2600-2	BC	SAM	1706489-04	20	7/5/2017 14:46:35	80364-1.RAW	2:46:35 PM	3938.26		3 X	98.3	0.396	7.916	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	7/5/2017 14:50:44	80365-1.RAW	2:50:44 PM	1294.32			3920.2	15.785	315.701	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	7/5/2017 14:54:52	80366-1.RAW	2:54:52 PM	90.86			1276.3	5.139	5.139	ng/L	
Hg2600-2	BC	SAM	1706489-05	20	7/5/2017 14:59:02	80367-1.RAW	2:59:02 PM	379.86		3 X	72.8	0.293	0.293	ng/L	
Hg2600-2	BC	SAM	1706489-13	20	7/5/2017 15:03:10	80368-1.RAW	3:03:10 PM	654.13		3 X	361.8	1.457	29.139	ng/L	
Hg2600-2	BC	SAM	1706489-14	20	7/5/2017 15:07:18	80369-1.RAW	3:07:18 PM	7543.72		3 X	636.1	2.561	51.227	ng/L	
Hg2600-2	BC	SAM	1706489-15	20	7/5/2017 15:11:27	80370-1.RAW	3:11:27 PM	230.61		3 X	7525.7	30.303	606.053	ng/L	
Hg2600-2	BC	SAM	1706489-19	20	7/5/2017 15:15:35	80371-1.RAW	3:15:35 PM	693.39		3 X	212.6	0.856	17.120	ng/L	
Hg2600-2	BC	SAM	F706635-DUP1	20	7/5/2017 15:19:44	80372-1.RAW	3:19:44 PM	122.85		3 X	675.4	2.719	54.388	ng/L	
Hg2600-2	BC	SAM	F706635-MS1	400	7/5/2017 15:23:52	80373-1.RAW	3:23:52 PM	3272.91		3 X	104.8	0.422	8.442	ng/L	
Hg2600-2	BC	SAM	F706635-MSD1	400	7/5/2017 15:28:00	80374-1.RAW	3:28:00 PM	3209.34		3 X	3254.9	13.106	5242.398	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	7/5/2017 15:32:09	80375-1.RAW	3:32:09 PM	1348.95			3191.3	12.850	5140.010	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	7/5/2017 15:36:17	80376-1.RAW	3:36:17 PM	60.34			1330.9	5.359	5.359	ng/L	
											42.3	0.170	0.170	ng/L	

TotalMercury
 EPA1631
 Operati 8C
 Worksh THg260(CalibFa 248.35
 Method ##### R: 1
 Descrip THg26002-170705-1
 BlankS: 18.016
 Calib Eqn: Conc = (Area-18.01
 Status: QC Warnings:9/QC E
 R2: 1
 Run Date: 7/5/2017
 Run Time: 13:44:28
 Blank SD: 1.556739291
 Blank RSD%: 8.640954294
 CF SD: 18.74652292
 CF RSD%: 7.548294776

SampleID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ref)	Flags	RunCount	Comment
Clean				0.00	10.27					80278-1.RAW	8:35:10	2550.14	Clean	OK	1	
clean				0.00	0.03					80279-1.RAW	8:38:01	6.95	Clean	OK	1	
ws				18.02	0.01					80280-1.RAW	8:42:09	20.83	Sample	OK	1	
ws				18.02	0.00					80281-1.RAW	8:46:18	16.51	Sample	OK	1	
ws				18.02	0.01					80282-1.RAW	8:50:26	21.25	Sample	OK	1	
SEQ-IBL1	A1		1	0.00	0.08					80283-1.RAW	8:54:35	19.80	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.07					80284-1.RAW	8:58:43	17.35	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.07					80285-1.RAW	9:02:52	16.91	Sample	OK	1	
SEQ-CAL1	A4		1	18.02	0.53			105.13		80286-1.RAW	9:07:00	148.56	Sample	OK	1	
*SEQ-CAL2	A5		1	18.02	1.63			147.81		80287-1.RAW	9:11:08	423.90	Sample	OK	1	
SEQ-CAL3	A6		1	18.02	4.84			96.71		80288-1.RAW	9:15:17	1218.97	Sample	OK	1	
SEQ-CAL4	A7		1	18.02	18.61			93.07		80289-1.RAW	9:19:25	4640.70	Sample	OK	1	
SEQ-CAL5	A8		1	18.02	37.80			94.49		80290-1.RAW	9:23:34	9404.91	Sample	OK	1	
WS				18.02	5.56					80292-1.RAW	9:31:45	1399.25	Sample	OK	1	
SEQ-CAL6	C1		1	18.02	1.11			110.60		80293-1.RAW	9:35:54	292.70	Sample	OK	1	
SEQ-ICV1	A9		1	18.02	4.98			99.56		80291-2.RAW	9:40:02	1254.27	Sample	OK	1	
F706598-BLK1	A10		20	18.02	1.51					80294-1.RAW	9:44:11	36.82	Sample	OK	1	
F706598-BLK2	A11		20	18.02	0.72					80295-1.RAW	9:48:19	26.96	Sample	OK	1	
F706598-BLK3	A12		20	18.02	0.73					80296-1.RAW	9:52:27	27.03	Sample	OK	1	
*F706598-BLK4	A13		20	18.02	0.52					80297-1.RAW	9:56:36	24.53	Sample	OK	1	
*F706598-BLK5	A14		20	18.02	0.41					80298-1.RAW	10:00:44	23.07	Sample	OK	1	
*F706598-BLK6	A15		20	18.02	0.51					80299-1.RAW	10:04:53	24.32	Sample	OK	1	
F706598-BS1	A16		20	18.02	95.71					80300-1.RAW	10:09:01	1206.58	Sample	OK	1	
F706598-BSD1	A17		20	18.02	92.12					80301-1.RAW	10:13:10	1161.89	Sample	OK	1	
F706598-BS2	A18		400	18.02	2252.10					80302-1.RAW	10:17:18	1416.31	Sample	OK	1	
1706398-01	A19		400	18.02	4124.67					80303-1.RAW	10:21:26	2578.96	Sample	OK	1	
SEQ-CCV1	A20		1	18.02	4.96			99.24		80304-1.RAW	10:25:35	1250.33	Sample	OK	1	
SEQ-CCB1	A21		1	18.02	0.04			0.00		80305-1.RAW	10:29:43	27.91	Sample	OK	1	
1706399-21	B1		400	18.02	784.48					80306-1.RAW	10:33:52	505.09	Sample	OK	1	
1706400-19	B2		400	18.02	4326.15					80307-1.RAW	10:38:00	2704.06	Sample	OK	1	
1706400-20	B3		400	18.02	3227.34					80308-1.RAW	10:42:08	2021.83	Sample	OK	1	
1706443-01	B4		100	18.02	647.65					80309-1.RAW	10:46:17	1626.48	Sample	OK	1	
F706598-DUP1	B5		400	18.02	4033.77					80310-1.RAW	10:50:25	2522.53	Sample	OK	1	
F706598-MS1	B6		400	18.02	8652.30			214.44		80311-1.RAW	10:54:34	5390.11	Sample	OK	1	
F706598-MSD1	B7		400	18.02	8689.71					80312-1.RAW	10:58:42	5413.33	Sample	OK	1	
F707257-BLK1	B8		100	18.02	31.27					80313-1.RAW	11:06:42	95.67	Sample	OK	1	
F707257-BLK2	B9		100	18.02	8.95					80314-1.RAW	11:10:50	40.24	Sample	OK	1	
F707257-BLK3	B10		100	18.02	6.82					80315-1.RAW	11:14:59	34.95	Sample	OK	1	
SEQ-CCV2	B11		1	18.02	5.06			101.15		80316-1.RAW	11:19:07	1274.13	Sample	OK	1	
SEQ-CCB2	B12		1	18.02	0.07			0.00		80317-1.RAW	11:23:16	35.26	Sample	OK	1	
F707257-BS1	B13		400	18.02	1875.91					80318-1.RAW	11:27:24	1182.74	Sample	OK	1	
WS				18.02	0.42					80320-1.RAW	11:34:14	121.88	Sample	OK	1	
F707257-BSD1	B14		400	18.02	1827.51					80319-2.RAW	11:38:22	1152.69	Sample	OK	1	started to sample wrong cup
1706889-01	B15		2500	18.02	53897.24					80321-1.RAW	11:42:31	5372.26	Sample	OK	1	
1706889-02	B16		2500	18.02	53073.68					80322-1.RAW	11:46:39	5290.45	Sample	OK	1	
1707031-01	B17		2500	18.02	13129.39					80323-1.RAW	11:50:49	1322.31	Sample	OK	1	
1707031-02	B18		2500	18.02	19322.51					80324-1.RAW	11:54:58	1937.55	Sample	OK	1	
1707032-01	B19		2500	18.02	12447.51					80325-1.RAW	11:59:07	1254.57	Sample	OK	1	
1707032-02	B20		2500	18.02	13648.74					80326-1.RAW	12:03:16	1373.91	Sample	OK	1	
1707033-01	B21		2500	18.02	9831.33					80327-1.RAW	12:07:24	994.68	Sample	OK	1	
1707033-02	C1		2500	18.02	9047.10					80328-1.RAW	12:11:33	916.77	Sample	OK	1	
SEQ-CCV3	C2		1	18.02	5.01			100.17		80329-1.RAW	12:15:41	1261.88	Sample	OK	1	
SEQ-CCB3	C3		1	18.02	0.08			0.00		80330-1.RAW	12:19:50	37.26	Sample	OK	1	
1706889-01B	C4		100	18.02	18.65					80331-1.RAW	12:23:58	64.34	Sample	OK	1	

1706889-02B	C5	100	18.02	29.60		80332-1.RAW	12:28:06	91.53	Sample	OK	1
1707031-01B	C6	100	18.02	7.46		80333-1.RAW	12:32:15	36.55	Sample	OK	1
1707031-02B	C7	100	18.02	12.56		80334-1.RAW	12:36:23	49.21	Sample	OK	1
1707032-01B	C8	100	18.02	17.42		80335-1.RAW	12:40:32	61.27	Sample	OK	1
1707032-02B	C9	100	18.02	30.23		80336-1.RAW	12:44:40	93.10	Sample	OK	1
1707033-01B	C10	100	18.02	9.04		80337-1.RAW	12:48:48	40.46	Sample	OK	1
1707033-02B	C11	100	18.02	12.93		80338-1.RAW	12:52:57	50.13	Sample	OK	1
1706889-01C	C12	2500	18.02	53391.37		80339-1.RAW	12:57:05	5322.01	Sample	OK	1
1706889-02C	C13	2500	18.02	50995.69		80340-1.RAW	13:01:14	5084.02	Sample	OK	1
SEQ-CCV4	C14	1	18.02	5.22	104.35	80341-1.RAW	13:05:23	1313.78	Sample	OK	1
SEQ-CCB4	C15	1	18.02	0.13	0.00	80342-1.RAW	13:09:33	50.40	Sample	OK	1
1707032-01C	C16	2500	18.02	27924.44		80343-1.RAW	13:13:41	2792.08	Sample	OK	1
1707032-02C	C17	2500	18.02	28182.82		80344-1.RAW	13:17:49	2817.75	Sample	OK	1
1707033-01C	C18	2500	18.02	27316.66		80345-1.RAW	13:21:58	2731.70	Sample	OK	1
1707033-02C	C19	2500	18.02	27367.01		80346-1.RAW	13:26:06	2736.70	Sample	OK	1
F707257-DUP1	C20	2500	18.02	13576.88		80347-1.RAW	13:30:15	1366.77	Sample	OK	1
F707257-MS1	C21	2500	18.02	61980.35	456.48	80348-1.RAW	13:34:23	6175.25	Sample	OK	1
F707257-MSD1	A1	2500	18.02	65102.90		80349-1.RAW	13:38:32	6485.45	Sample	OK	1
EFGS07654 tv 2(A2	A2	400	18.02	5105.14		80350-1.RAW	13:48:37	3187.73	Sample	OK	1
EFGS10049 tv 2(A3	A3	400	18.02	5080.63		80351-1.RAW	13:52:46	3172.51	Sample	OK	1
EFGS07879 tv 2(A4	A4	400	18.02	4941.26		80352-1.RAW	13:56:54	3085.97	Sample	OK	1
SEQ-CCV5	A5	1	18.02	5.34	106.88	80353-1.RAW	14:01:03	1345.22	Sample	OK	1
SEQ-CCB5	A6	1	18.02	0.14	0.00	80354-1.RAW	14:05:11	53.60	Sample	OK	1
EFGS07922 tv 2(A7	A7	400	18.02	4764.49		80355-1.RAW	14:09:20	2976.22	Sample	OK	1
F706635-BLK1	A8	20	18.02	4.33		80356-1.RAW	14:13:28	71.80	Sample	OK	1
F706635-BLK2	A9	20	18.02	2.39		80357-1.RAW	14:17:36	47.73	Sample	OK	1
F706635-BLK3	A10	20	18.02	1.42		80358-1.RAW	14:21:45	35.60	Sample	OK	1
F706635-BS1	A11	20	18.02	97.00		80359-1.RAW	14:25:53	1222.48	Sample	OK	1
F706635-BSD1	A12	20	18.02	101.55		80360-1.RAW	14:30:02	1279.08	Sample	OK	1
1706489-01	A13	20	18.02	7.31		80361-1.RAW	14:34:10	108.85	Sample	OK	1
1706489-02	A14	20	18.02	7.64		80362-1.RAW	14:38:18	112.85	Sample	OK	1
1706489-03	A15	20	18.02	7.92		80363-1.RAW	14:42:27	116.32	Sample	OK	1
1706489-04	A16	20	18.02	315.70		80364-1.RAW	14:46:35	3938.26	Sample	OK	1
SEQ-CCV6	A17	1	18.02	5.14	102.78	80365-1.RAW	14:50:44	1294.32	Sample	OK	1
SEQ-CCB6	A18	1	18.02	0.29	0.00	80366-1.RAW	14:54:52	90.86	Sample	OK	1
1706489-05	A19	20	18.02	29.14		80367-1.RAW	14:59:02	379.86	Sample	OK	1
1706489-13	A20	20	18.02	51.23		80368-1.RAW	15:03:10	654.13	Sample	OK	1
1706489-14	A21	20	18.02	606.05		80369-1.RAW	15:07:18	7543.72	Sample	OK	1
1706489-15	B1	20	18.02	17.12		80370-1.RAW	15:11:27	230.61	Sample	OK	1
1706489-19	B2	20	18.02	54.39		80371-1.RAW	15:15:35	693.39	Sample	OK	1
F706635-DUP1	B3	20	18.02	8.44		80372-1.RAW	15:19:44	122.85	Sample	OK	1
F706635-MS1	B4	400	18.02	5242.33	55518.70	80373-1.RAW	15:23:52	3272.91	Sample	OK	1
F706635-MSD1	B5	400	18.02	5139.95		80374-1.RAW	15:28:00	3209.34	Sample	OK	1
SEQ-CCV7	B6	1	18.02	5.36	107.18	80375-1.RAW	15:32:09	1348.95	Sample	OK	1
SEQ-CCB7	B7	1	18.02	0.17	0.00	80376-1.RAW	15:36:17	60.34	Sample	OK	1

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7G06014, 7G06015, 7G06016
Reviewer: 0 <i>R 7/6/17</i>	Dataset ID(s): THg26002-170705-1
Date: 7/6/2017	WO (s) #: VARIOUS
Batch #(s): F707257, F706598, F706635	0

Analyst Initials BC **Reviewer Initials** R 7/6/17

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7G06014, 7G06015, 7G06016
Reviewer:	0 <i>BC 7/6/17</i>	Dataset ID(s):	THg26002-170705-1
Date:	7/6/2017	WO (s) #:	VARIOUS
Batch #(s):	F707257, F706598, F706635		0

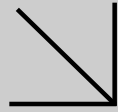
Analyst Initials *BC* Reviewer Initials *BC 7/6/17*

20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? YES NO
- Comments: _____
21. Are all samples within instrument calibration range? (or at minimum dilution size) PASS FAIL
- Comments: _____
22. Are the samples run at the correct dilution level for the method? YES NO
- Comments: _____
23. Dissolved < Total (if applicable) YES NO N/A
- Comments: _____
24. Effluent < Influent (visually confirm if needed) YES NO N/A
- Comments: _____
25. Are re-runs noted with reason? YES NO N/A
- Comments: _____
26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? YES NO N/A
- Comments: _____
27. Is the B trap <5% A Traps YES NO N/A
- Comments: _____
28. Are spiked trap recoveries 75-125% of true value? YES NO N/A
- Comments: _____
29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
- Comments: _____
30. Have re-extracts been created for non-reportable samples? YES NO N/A
31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. YES NO N/A
32. Does the data set need scanning? YES N/A
33. Does the dataset have an LOQ/LOQ or DOC? YES N/A
34. Water samples: has the preservation log been included in dataset for final volume verification? YES NO N/A
35. Water samples-is the final volume correct in the sequence? YES NO N/A
- Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs**
36. Date of analyst IDOC/CDOC: _____ IDOC/CDOC within last 12 months? YES NO
37. Date of analyst's SOP reading for method: _____ Current SOP revision read? YES NO
38. Date of LOD: _____ LOD within last 3 months? YES NO
39. Date of LOQ: _____ LOQ within last 3 months? YES NO

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

Supplemental Report 1

The original report has been revised to include the Level IV deliverables package.

**WORK ORDER NUMBER: 17-06-1332**

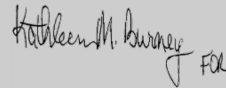
The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For**Client:** Eurofins Frontier Global Sciences, Inc.**Client Project Name:** 1706400

Attention: Amy Goodall
 11720 North Creek Parkway North
 Suite 4
 Bothell, WA 98011-8244



Approved for release on 07/13/2017 by:
 Carla Hollowell
 Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Contents

Client Project Name: 1706400
 Work Order Number: 17-06-1332

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Client Project Name: 1706400
Work Order Number: 17-06-1332

CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received 20 Tissue samples on June 17, 2017. A total of 20 containers were received in good condition and at a temperature of 2.7°C, which is within the recommended temperature criteria of >0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
OB-05_17ET100_060517_EEL_01_WB	17-06-1332-1	06/05/17 13:00	06/17/17 12:45
OB-05_17ET100_060517_EEL_02_WB	17-06-1332-2	06/05/17 13:00	06/17/17 12:45
OB-05_17ET100_060517_EEL_03_WB	17-06-1332-3	06/05/17 13:00	06/17/17 12:45
OB-05_17ET111_060517_EEL_04_WB	17-06-1332-4	06/05/17 14:18	06/17/17 12:45
OB-05_17ET111_060517_EEL_05_WB	17-06-1332-5	06/05/17 14:18	06/17/17 12:45
OB-05_17ET110_060517_EEL_06_WB	17-06-1332-6	06/05/17 14:22	06/17/17 12:45
OB-05_17ET110_060517_EEL_07_WB	17-06-1332-7	06/05/17 14:22	06/17/17 12:45
OB-05_17ET104_060517_EEL_08_WB	17-06-1332-8	06/05/17 14:37	06/17/17 12:45
OB-05_17ET104_060517_EEL_09_WB	17-06-1332-9	06/05/17 14:37	06/17/17 12:45
OB-05_17ET101_060517_EEL_10_WB	17-06-1332-10	06/05/17 14:47	06/17/17 12:45
OB-05_17ET101_060517_EEL_11_WB	17-06-1332-11	06/05/17 14:47	06/17/17 12:45
OB-05_17ET141_060617_EEL_12_WB	17-06-1332-12	06/06/17 11:20	06/17/17 12:45
OB-05_17ET141_060617_EEL_13_WB	17-06-1332-13	06/06/17 11:20	06/17/17 12:45
OB-05_17ET141_060617_EEL_14_WB	17-06-1332-14	06/06/17 11:20	06/17/17 12:45
OB-05_17ET141_060617_EEL_15_WB	17-06-1332-15	06/06/17 11:20	06/17/17 12:45
OB-05_17ET141_060617_EEL_16_WB	17-06-1332-16	06/06/17 11:20	06/17/17 12:45
OB-05_17ET141_060617_EEL_17_WB	17-06-1332-17	06/06/17 11:20	06/17/17 12:45
OB-05_17ET141_060617_EEL_18_WB	17-06-1332-18	06/06/17 11:20	06/17/17 12:45
OB-05_17ET141_060617_EEL_19_WB	17-06-1332-19	06/06/17 11:20	06/17/17 12:45
OB-05_17ET141_060617_EEL_20_WB	17-06-1332-20	06/06/17 11:20	06/17/17 12:45

DATA SUMMARY:

Pursuant to the chain of custody document, the samples were analyzed using the following methodologies:

- % Lipids via MeCl₂ Ext. (NOAA 1993a)

The samples were analyzed within the suggested EPA holding time for the requested methods, unless otherwise noted below.

Sample results were reported in the RL format.

Client Project Name: 1706400

Work Order Number: 17-06-1332

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Manual integrations made to the data will be noted in the following narrative. The initial and amended chromatograms have been included in the data package.

All sample and instrument QC were within acceptance criteria, unless otherwise noted below.

% Lipids via MeCl₂ Ext. (NOAA 1993a):

Samples -1 through -20 were analyzed for % Lipids via MeCl₂ Ext. (NOAA 1993a). The samples were prepared and analyzed on 07/03/17 in batch #s 170703B10 / 170703D10.

Sample and QC:

Sample -1 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/17/17. They were assigned to Work Order 17-06-1332.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



Calscience

Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	17-06-1332
11720 North Creek Parkway North, Suite 4	Project Name:	1706400
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	06/17/17 12:45
	Number of Containers:	20

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
OB-05_17ET100_060517_EEL_01_WB	17-06-1332-1	06/05/17 13:00	1	Tissue
OB-05_17ET100_060517_EEL_02_WB	17-06-1332-2	06/05/17 13:00	1	Tissue
OB-05_17ET100_060517_EEL_03_WB	17-06-1332-3	06/05/17 13:00	1	Tissue
OB-05_17ET111_060517_EEL_04_WB	17-06-1332-4	06/05/17 14:18	1	Tissue
OB-05_17ET111_060517_EEL_05_WB	17-06-1332-5	06/05/17 14:18	1	Tissue
OB-05_17ET110_060517_EEL_06_WB	17-06-1332-6	06/05/17 14:22	1	Tissue
OB-05_17ET110_060517_EEL_07_WB	17-06-1332-7	06/05/17 14:22	1	Tissue
OB-05_17ET104_060517_EEL_08_WB	17-06-1332-8	06/05/17 14:37	1	Tissue
OB-05_17ET104_060517_EEL_09_WB	17-06-1332-9	06/05/17 14:37	1	Tissue
OB-05_17ET101_060517_EEL_10_WB	17-06-1332-10	06/05/17 14:47	1	Tissue
OB-05_17ET101_060517_EEL_11_WB	17-06-1332-11	06/05/17 14:47	1	Tissue
OB-05_17ET141_060617_EEL_12_WB	17-06-1332-12	06/06/17 11:20	1	Tissue
OB-05_17ET141_060617_EEL_13_WB	17-06-1332-13	06/06/17 11:20	1	Tissue
OB-05_17ET141_060617_EEL_14_WB	17-06-1332-14	06/06/17 11:20	1	Tissue
OB-05_17ET141_060617_EEL_15_WB	17-06-1332-15	06/06/17 11:20	1	Tissue
OB-05_17ET141_060617_EEL_16_WB	17-06-1332-16	06/06/17 11:20	1	Tissue
OB-05_17ET141_060617_EEL_17_WB	17-06-1332-17	06/06/17 11:20	1	Tissue
OB-05_17ET141_060617_EEL_18_WB	17-06-1332-18	06/06/17 11:20	1	Tissue
OB-05_17ET141_060617_EEL_19_WB	17-06-1332-19	06/06/17 11:20	1	Tissue
OB-05_17ET141_060617_EEL_20_WB	17-06-1332-20	06/06/17 11:20	1	Tissue


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Calscience

Analytical Report

Eurofins Frontier Global Sciences, Inc.
11720 North Creek Parkway North, Suite 4
Bothell, WA 98011-8244

Date Received: 06/17/17
Work Order: 17-06-1332
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)
Units: %

Project: 1706400

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-05_17ET100_060517_EEL_01_WB	17-06-1332-1-AA	06/05/17 13:00	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.8	0.10		1.00		
OB-05_17ET100_060517_EEL_02_WB	17-06-1332-2-AA	06/05/17 13:00	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.6	0.10		1.00		
OB-05_17ET100_060517_EEL_03_WB	17-06-1332-3-AA	06/05/17 13:00	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.6	0.10		1.00		
OB-05_17ET111_060517_EEL_04_WB	17-06-1332-4-AA	06/05/17 14:18	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.97	0.10		1.00		
OB-05_17ET111_060517_EEL_05_WB	17-06-1332-5-AA	06/05/17 14:18	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.0	0.10		1.00		
OB-05_17ET110_060517_EEL_06_WB	17-06-1332-6-AA	06/05/17 14:22	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.1	0.10		1.00		
OB-05_17ET110_060517_EEL_07_WB	17-06-1332-7-AA	06/05/17 14:22	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.8	0.10		1.00		
OB-05_17ET104_060517_EEL_08_WB	17-06-1332-8-AA	06/05/17 14:37	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.3	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Eurofins Frontier Global Sciences, Inc.
11720 North Creek Parkway North, Suite 4
Bothell, WA 98011-8244

Date Received: 06/17/17
Work Order: 17-06-1332
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)
Units: %

Project: 1706400

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-05_17ET104_060517_EEL_09_WB	17-06-1332-9-AA	06/05/17 14:37	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		6.9	0.10		1.00		
OB-05_17ET101_060517_EEL_10_WB	17-06-1332-10-AA	06/05/17 14:47	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		6.6	0.10		1.00		
OB-05_17ET101_060517_EEL_11_WB	17-06-1332-11-AA	06/05/17 14:47	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.44	0.10		1.00		
OB-05_17ET141_060617_EEL_12_WB	17-06-1332-12-AA	06/06/17 11:20	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.42	0.10		1.00		
OB-05_17ET141_060617_EEL_13_WB	17-06-1332-13-AA	06/06/17 11:20	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.35	0.10		1.00		
OB-05_17ET141_060617_EEL_14_WB	17-06-1332-14-AA	06/06/17 11:20	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.7	0.10		1.00		
OB-05_17ET141_060617_EEL_15_WB	17-06-1332-15-AA	06/06/17 11:20	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.8	0.10		1.00		
OB-05_17ET141_060617_EEL_16_WB	17-06-1332-16-AA	06/06/17 11:20	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.5	0.10		1.00		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Eurofins Frontier Global Sciences, Inc.
11720 North Creek Parkway North, Suite 4
Bothell, WA 98011-8244

Date Received: 06/17/17
Work Order: 17-06-1332
Preparation: N/A
Method: MeCl₂ Ext. (NOAA 1993a)
Units: %

Project: 1706400

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-05_17ET141_060617_EEL_17_WB	17-06-1332-17-AA	06/06/17 11:20	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.7	0.10		1.00		
OB-05_17ET141_060617_EEL_18_WB	17-06-1332-18-AA	06/06/17 11:20	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		6.5	0.10		1.00		
OB-05_17ET141_060617_EEL_19_WB	17-06-1332-19-AA	06/06/17 11:20	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.8	0.10		1.00		
OB-05_17ET141_060617_EEL_20_WB	17-06-1332-20-AA	06/06/17 11:20	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		10	0.10		1.00		
Method Blank	099-14-104-176	N/A	Tissue	N/A	07/03/17	07/03/17 00:00	170703B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.
 11720 North Creek Parkway North, Suite 4
 Bothell, WA 98011-8244

Date Received: 06/17/17
 Work Order: 17-06-1332
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)

Project: 1706400

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
OB-05_17ET100_060517_EEL_01_WB	Sample	Tissue	N/A	07/03/17 00:00	07/03/17 00:00	170703D10
OB-05_17ET100_060517_EEL_01_WB	Sample Duplicate	Tissue	N/A	07/03/17 00:00	07/03/17 00:00	170703D10

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	1.778	1.912	7	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

Glossary of Terms and Qualifiers

Work Order: 17-06-1332

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1706400

17-06-1332

SENDING LABORATORY:

Eurofins Frontier Global Sciences, Inc.
11720 North Creek Parkway North, Suite 400
Bothell, WA 98011
Phone: (425) 686-1996
Fax: (425) 686-3096
Project Manager: Amy Goodall

RECEIVING LABORATORY:

Eurofins Calscience, Inc
7440 Lincoln Way
Garden Grove, CA 92841
Phone :7148955494
Fax: x

Analysis Comments

① Sample ID: OB-05_17ET100_060517_EEL_01_WB

EFGS Lab ID: 1706400-01 Matrix: Tissue
Sampled: 05-Jun-17 13:00 Eastern Due: 12-Jul-17 19:00
MS/MSD

Misc. Subcontract 1 Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required
~~For homogenization add 1X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:
34_Plastic Bag (C)

② Sample ID: OB-05_17ET100_060517_EEL_02_WB

EFGS Lab ID: 1706400-02 Matrix: Tissue
Sampled: 05-Jun-17 13:00 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1 Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required
~~For homogenization add 1X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:
34_Plastic Bag (C)

③ Sample ID: OB-05_17ET100_060517_EEL_03_WB

EFGS Lab ID: 1706400-03 Matrix: Tissue
Sampled: 05-Jun-17 13:00 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1 Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required
~~For homogenization add 1X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:
34_Plastic Bag (C)

Released By Date 6/16/17 Received By Date 6/17/17 12:45
Released By Date 6/16/17 Received By Date 6/17/17 12:45



SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
1706400

Analysis Comments

4 Sample ID: OB-05_17ET111_060517_EEL_04_WB

EFGS Lab ID: 1706400-04 Matrix: Tissue
Sampled: 05-Jun-17 14:18 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1 Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for each sample, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:
34_Plastic Bag (C)

5 Sample ID: OB-05_17ET111_060517_EEL_05_WB

EFGS Lab ID: 1706400-05 Matrix: Tissue
Sampled: 05-Jun-17 14:18 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1 Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for each sample, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:
34_Plastic Bag (C)

6 Sample ID: OB-05_17ET110_060517_EEL_06_WB

EFGS Lab ID: 1706400-06 Matrix: Tissue
Sampled: 05-Jun-17 14:22 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1 Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for each sample, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:
34_Plastic Bag (C)

7 Sample ID: OB-05_17ET110_060517_EEL_07_WB

EFGS Lab ID: 1706400-07 Matrix: Tissue
Sampled: 05-Jun-17 14:22 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1 Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for each sample, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:
34_Plastic Bag (C)

Released By Date 6/16/17
Received By Date 06/17/17 1245

Return to Contents

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
1706400

Analysis **Comments**

⑧ **Sample ID: OB-05_17ET104_060517_EEL_08_WB**

EFGS Lab ID: 1706400-08 **Matrix: Tissue**

Sampled: 05-Jun-17 14:37 Eastern **Due: 12-Jul-17 19:00**

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X. Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:

34_Plastic Bag (C)

⑨ **Sample ID: OB-05_17ET104_060517_EEL_09_WB**

EFGS Lab ID: 1706400-09 **Matrix: Tissue**

Sampled: 05-Jun-17 14:37 Eastern **Due: 12-Jul-17 19:00**

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X. Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:

34_Plastic Bag (C)

⑩ **Sample ID: OB-05_17ET101_060517_EEL_10_WB**

EFGS Lab ID: 1706400-10 **Matrix: Tissue**

Sampled: 05-Jun-17 14:47 Eastern **Due: 12-Jul-17 19:00**

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X. Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:

34_Plastic Bag (C)

⑪ **Sample ID: OB-05_17ET101_060517_EEL_11_WB**

EFGS Lab ID: 1706400-11 **Matrix: Tissue**

Sampled: 05-Jun-17 14:47 Eastern **Due: 12-Jul-17 19:00**


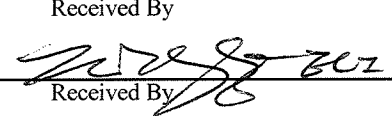
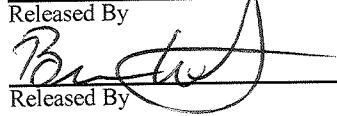
Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X. Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:

34_Plastic Bag (C)

	6/16/17		
Released By	Date	Received By	Date
	6/16/17		06/17/17/245
Released By	Date	Received By	Date



SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
1706400

Analysis **Comments**

12

Sample ID: OB-05_17ET141_060617_EEL_12_WB
EFGS Lab ID: 1706400-12 **Matrix:** Tissue
Sampled: 06-Jun-17 11:20 Eastern **Due:** 12-Jul-17 19:00

Misc. Subcontract 1 **Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required**

~~For homogenization add X Large code for fecal samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:
34_Plastic Bag (C)

13

Sample ID: OB-05_17ET141_060617_EEL_13_WB
EFGS Lab ID: 1706400-13 **Matrix:** Tissue
Sampled: 06-Jun-17 11:20 Eastern **Due:** 12-Jul-17 19:00

Misc. Subcontract 1 **Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required**

~~For homogenization add M Large code for fecal samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:
34_Plastic Bag (C)

14

Sample ID: OB-05_17ET141_060617_EEL_14_WB
EFGS Lab ID: 1706400-14 **Matrix:** Tissue
Sampled: 06-Jun-17 11:20 Eastern **Due:** 12-Jul-17 19:00

Misc. Subcontract 1 **Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required**

~~For homogenization add M Large code for fecal samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:
34_Plastic Bag (C)

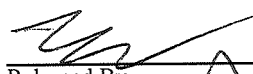
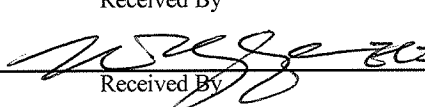
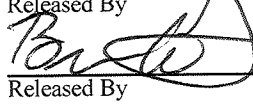
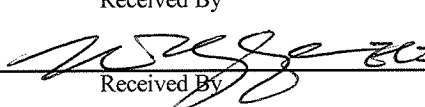
15

Sample ID: OB-05_17ET141_060617_EEL_15_WB
EFGS Lab ID: 1706400-15 **Matrix:** Tissue
Sampled: 06-Jun-17 11:20 Eastern **Due:** 12-Jul-17 19:00

Misc. Subcontract 1 **Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required**

~~For homogenization add X Large code for fecal samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:
34_Plastic Bag (C)

	6/16/17		06/17/17 1245
Released By	Date	Received By	Date
	6/16/17		06/17/17 1245
Released By	Date	Received By	Date



SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
1706400

Analysis **Comments**

⑩ Sample ID: OB-05_17ET141_060617_EEL_16_WB

EFGS Lab ID: 1706400-16 Matrix: Tissue
Sampled: 06-Jun-17 11:20 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1 **Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required**

~~For homogenization add X Large code for ool samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:
34_Plastic Bag (C)

⑪ Sample ID: OB-05_17ET141_060617_EEL_17_WB

EFGS Lab ID: 1706400-17 Matrix: Tissue
Sampled: 06-Jun-17 11:20 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1 **Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required**

~~For homogenization add X Large code for ool samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:
34_Plastic Bag (C)

⑫ Sample ID: OB-05_17ET141_060617_EEL_18_WB

EFGS Lab ID: 1706400-18 Matrix: Tissue
Sampled: 06-Jun-17 11:20 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1 **Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required**

~~For homogenization add X Large code for ool samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:
34_Plastic Bag (C)


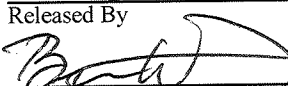

⑬ Sample ID: OB-05_17ET141_060617_EEL_19_WB

EFGS Lab ID: 1706400-19 Matrix: Tissue
Sampled: 06-Jun-17 11:20 Eastern Due: 12-Jul-17 19:00

Misc. Subcontract 1 **Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required**

~~For homogenization add X Large code for ool samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:
34_Plastic Bag (C)

	6/16/17		
Released By	Date	Received By	Date
	6/16/17		6/17/17 1245
Released By	Date	Received By	Date



SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
1706400

Analysis	Comments
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20

Sample ID: OB-05_17ET141_060617_EEL_20_WB

EFGS Lab ID: 1706400-20

Matrix: Tissue

Sampled: 06-Jun-17 11:20 Eastern

Due: 12-Jul-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X-Large code for whole samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.~~

Containers Supplied:

34_Plastic Bag (C)

Return to Contents

[Signature] 6/16/17
Released By _____ Date 6/16/17
[Signature]
Released By _____ Date _____

Received By _____ Date _____
[Signature] 06/17/17 1245
Received By _____ Date _____



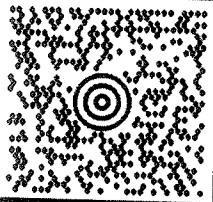
FRONT DESK
(425) 686-1996
FRONTIER GLOBAL SCIENCES
11720 N CREEK PKWY N
BOTHELL WA 98011-8244

19 LBS

1 OF 1

DWT: 19,12,14

SHIP TO:
SAMPLE RECEIVING
(714) 895-5494
EUROFINS CALSCIENCE, INC.
7440 LINCOLN WAY
GARDEN GROVE CA 92841



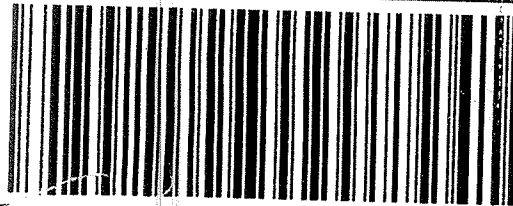
CA 927 9-09



UPS NEXT DAY AIR

TRACKING #: 1Z 86W 050 44 5034 0745

1 S



BILLING: P/P

Expt No.: OVERHEAD
REF 2:Subcontract

WS 20.0.20 Zebra ZP 460 87.0A 04/2017



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SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Eurofins Frontier Global Sciences, Inc.

DATE: 06/17/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 2.7 °C (w/ CF): 2.7 °C; Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____)

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: Air Filter

Checked by: 778

CUSTODY SEAL:

Cooler Present and Intact Present but Not Intact Not Present N/A

Checked by: 778

Sample(s) Present and Intact Present but Not Intact Not Present N/A

Checked by: 1017

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples Yes No N/A

COC document(s) received complete Yes No N/A

Sampling date Sampling time Matrix Number of containers

No analysis requested Not relinquished No relinquished date No relinquished time

Sampler's name indicated on COC Yes No N/A

Sample container label(s) consistent with COC Yes No N/A

Sample container(s) intact and in good condition Yes No N/A

Proper containers for analyses requested Yes No N/A

Sufficient volume/mass for analyses requested Yes No N/A

Samples received within holding time Yes No N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH Residual Chlorine Dissolved Sulfide Dissolved Oxygen Yes No N/A

Proper preservation chemical(s) noted on COC and/or sample container Yes No N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics Total Metals Dissolved Metals

Container(s) for certain analysis free of headspace Yes No N/A

Volatile Organics Dissolved Gases (RSK-175) Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500) Ferrous Iron (SM 3500) Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation Yes No N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: VOA VOA_h VOA_{na2} 100PJ 100PJ_{na2} 125AGB 125AGB_h 125AGB_p 125PB

125PB_z_{na} 250AGB 250CGB 250CGB_s 250PB 250PB_n 500AGB 500AGJ 500AGJ_s

500PB 1AGB 1AGB_{na2} 1AGB_s 1PB 1PB_{na} _____ _____ _____ _____

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (_____) EnCores® (_____) TerraCores® (_____) _____

Air: Tedlar™ Canister Sorbent Tube PUF _____ Other Matrix (issue): Z _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1017

s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, z_{na} = Zn (CH₃CO₂)₂ + NaOH

Reviewed by: 778
Page 108 of 138



% Lipids via MeCl₂ Ext. (NOAA 1993a)

RAW DATA

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

1 **CLIENT SAMPLE NUMBER:** OB-05_17ET100_060517_EEL_01_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	1.78	1.00	1.78	0.10	



RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

2 **CLIENT SAMPLE NUMBER:** OB-05_17ET100_060517_EEL_02_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	1.64	1.00	1.64	0.10	



RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

3 **CLIENT SAMPLE NUMBER:** OB-05_17ET100_060517_EEL_03_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.62	1.00	4.62	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

4 **CLIENT SAMPLE NUMBER:** OB-05_17ET111_060517_EEL_04_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.968	1.00	0.968	0.10	


Return to Contents

**RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

5 **CLIENT SAMPLE NUMBER:** OB-05_17ET111_060517_EEL_05_WB

LCS/MB BATCH: 170703B10 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	1.03	1.00	1.03	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

6 **CLIENT SAMPLE NUMBER:** OB-05_17ET110_060517_EEL_06_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.10	1.00	4.10	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

7 **CLIENT SAMPLE NUMBER:** OB-05_17ET110_060517_EEL_07_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	2.76	1.00	2.76	0.10	



RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

8 **CLIENT SAMPLE NUMBER:** OB-05_17ET104_060517_EEL_08_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	5.31	1.00	5.31	0.10	



RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

9 **CLIENT SAMPLE NUMBER:** OB-05_17ET104_060517_EEL_09_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	6.93	1.00	6.93	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

10 **CLIENT SAMPLE NUMBER:** OB-05_17ET101_060517_EEL_10_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	6.56	1.00	6.56	0.10	



RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

11 **CLIENT SAMPLE NUMBER:** OB-05_17ET101_060517_EEL_11_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.442	1.00	0.442	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

12 **CLIENT SAMPLE NUMBER:** OB-05_17ET141_060617_EEL_12_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.416	1.00	0.416	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

13 **CLIENT SAMPLE NUMBER:** OB-05_17ET141_060617_EEL_13_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.350	1.00	0.350	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

14 **CLIENT SAMPLE NUMBER:** OB-05_17ET141_060617_EEL_14_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	1.69	1.00	1.69	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

15 **CLIENT SAMPLE NUMBER:** OB-05_17ET141_060617_EEL_15_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	5.82	1.00	5.82	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

16 **CLIENT SAMPLE NUMBER:** OB-05_17ET141_060617_EEL_16_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	5.54	1.00	5.54	0.10	



RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

17 **CLIENT SAMPLE NUMBER:** OB-05_17ET141_060617_EEL_17_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.69	1.00	4.69	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

18 **CLIENT SAMPLE NUMBER: OB-05_17ET141_060617_EEL_18_WB**

LCS/MB BATCH: 170703B10 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	6.46	1.00	6.46	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

19 **CLIENT SAMPLE NUMBER: OB-05_17ET141_060617_EEL_19_WB**

LCS/MB BATCH: 170703B10 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	2.75	1.00	2.75	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-06-1332
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

20 **CLIENT SAMPLE NUMBER:** OB-05_17ET141_060617_EEL_20_WB

LCS/MB BATCH: 170703B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g
MS/MSD BATCH: 170703D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml
UNITS: % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	10.4	1.00	10.4	0.10	

METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

MB SAMPLE ID: 099-14-104-176
MB BATCH ID: 170703B10
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:
MATRIX: Tissue

DATA FILE:

CLIENT WORK ORDER: 17-06-1332

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
1		OB-05_17ET100_060517_EEL_01_	2017-07-03 00:00	
	WB			
2		OB-05_17ET100_060517_EEL_02_	2017-07-03 00:00	
	WB			
3		OB-05_17ET100_060517_EEL_03_	2017-07-03 00:00	
	WB			
4		OB-05_17ET111_060517_EEL_04_	2017-07-03 00:00	
	WB			
5		OB-05_17ET111_060517_EEL_05_	2017-07-03 00:00	
	WB			
6		OB-05_17ET110_060517_EEL_06_	2017-07-03 00:00	
	WB			
7		OB-05_17ET110_060517_EEL_07_	2017-07-03 00:00	
	WB			
8		OB-05_17ET104_060517_EEL_08_	2017-07-03 00:00	
	WB			
9		OB-05_17ET104_060517_EEL_09_	2017-07-03 00:00	
	WB			
10		OB-05_17ET101_060517_EEL_10_	2017-07-03 00:00	
	WB			
11		OB-05_17ET101_060517_EEL_11_	2017-07-03 00:00	
	WB			
12		OB-05_17ET141_060617_EEL_12_	2017-07-03 00:00	
	WB			
13		OB-05_17ET141_060617_EEL_13_	2017-07-03 00:00	
	WB			
14		OB-05_17ET141_060617_EEL_14_	2017-07-03 00:00	
	WB			
15		OB-05_17ET141_060617_EEL_15_	2017-07-03 00:00	
	WB			
16		OB-05_17ET141_060617_EEL_16_	2017-07-03 00:00	
	WB			
17		OB-05_17ET141_060617_EEL_17_	2017-07-03 00:00	
	WB			
18		OB-05_17ET141_060617_EEL_18_	2017-07-03 00:00	
	WB			
19		OB-05_17ET141_060617_EEL_19_	2017-07-03 00:00	
	WB			
20		OB-05_17ET141_060617_EEL_20_	2017-07-03 00:00	
	WB			

Return to Contents

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104
INSTRUMENT: N/A
EXTRACTION : N/A
D/T EXTRACTED: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 170703B10 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g
MS/MSD BATCH: FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.00800	1.00	ND	0.10	



DUPLICATE REPORT FOR METHOD: MeCI2 Ext. (NOAA 1993a)

DUP SAMPLE ID: 17-06-1332-1
DUP BATCH: 170703D10
INSTRUMENTS:
SAMPLE: N/A
DUP SAMPLE: N/A

EXTRACTION: N/A
D/T EXTRACTED:
SAMPLE: 2017-07-03 00:00
DUP SAMPLE: 2017-07-03 00:00

ANALYZED BY: 684
D/T ANALYZED:
SAMPLE: 2017-07-03 00:00
DUP SAMPLE: 2017-07-03 00:00
REVIEWED BY:
D/T REVIEWED:

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	1.778	1.912	7	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

Analysis Method (EPA Method): 608 8081 8082 8141 8310 TO-13 TO-4 Lipids
 8270 (Soil Soil SIM SUPER PAH SIM PAH SIM Pest SIM PCB cong. SIM FL)

Extraction Method (EPA Method): 3510 3520 3540 3541 3545 3550 3580

Analyst ID#: Measuring Sample- 680 Start Extraction- 680 Blow Down- 680 Clean Up-

Matrix: Soil Aqueous Oil Wipe Filter Tissue Air

Balance ID#: 70 Filter ID#: 50765-06 ASE ID#: Soxtherm ID#: 1-8 Orbit Shaker ID#: Sonicator ID#:

Ext. Start Date/Time: 7/3/17 9:30 Ext. End Date/Time: 7/3/17 12:00

Sand or Wipe ID#: 507-64-18 Drying Agent: Na₂SO₄ Diatomaceous Earth
Drying Agent(s) ID#: 507-65-01

Surrogate Std ID# & Volume Added (mL):

Spike Std ID# & Volume Added (mL): Spike Added to: LCS LCSD MS MSD

Extraction Solvent: MeCl₂ 1:1 Hexane-Acetone 1:1 MeCl₂-Acetone 9:1 Hexane-Diethyl-ether Acetonitrile

Extraction Solvent ID#: 507-71-12 Exchange Solvent (Hexane Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up: 3620 Florisil 3630 SGC 3660 Sulfur 3665 Acid Other Cartridge ID#:

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #:	Sample W (g) / V (mL)		Clean Up Performed	Comments
	Initial	Final		
<u>170703 D 10</u>				
Cel ID#:	Initial	Final		
MB	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
LCS	<u>/</u>	<u>/</u>	<input type="checkbox"/>	
LCSD	<u>/</u>	<u>/</u>	<input type="checkbox"/>	
MS	<u>/</u>	<u>/</u>	<input type="checkbox"/>	
MSD Dup <u>17-06-1332-1AA</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>17-06-1332-1AA</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-2</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-3</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-4</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-5</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-6</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-7</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-8</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-9</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-10</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-11</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-12</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-13</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-14</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-15</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-16</u>	<u>4.50</u>	<u>1</u>	<input type="checkbox"/>	
<u>-17</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-18</u>	<u>4.50</u>	<u>1</u>	<input type="checkbox"/>	
<u>-19</u>	<u>5.0</u>	<u>1</u>	<input type="checkbox"/>	
<u>-20 AA</u>	<u>5.10</u>	<u>1</u>	<input type="checkbox"/>	

Peer Reviewed by: 684

Peer Reviewed Date: 7/3/17

Revision Date: 10/20/16

BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 07/03/17 Initials: 1134

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (If not passed, note removal or corrective action)
25	1	1.00	0.98 - 1.02	(Y) N	IO Lab
	100	99.92	98.00 - 102.00	(Y) N	
	500	499.68	498.00 - 502.00	(Y) N	
62	0.002	0.0020	0.00180 - 0.00220	(Y) N	IO Lab
	1	0.9994	0.99900 - 1.00100	(Y) N	
	100	99.9953	99.90000 - 100.10000	(Y) N	
26	1	1.00	0.98 - 1.02	(Y) N	IO Lab
	100	99.98	98.00 - 102.00	(Y) N	
55	1	0.99	0.98 - 1.02	(Y) N	IO Lab
	100	99.97	98.00 - 102.00	(Y) N	
	500	499.91	498.00 - 502.00	(Y) N	
11	1	1.00	0.98 - 1.02	(Y) N	IO Lab
	100	100.00	98.00 - 102.00	(Y) N	
66	0.002	0.0019	0.00180 - 0.00220	(Y) N	Metals
	1	0.9996	0.99900 - 1.00100	(Y) N	
	100	99.9995	99.90000 - 100.10000	(Y) N	
53	0.1		0.09 - 0.11	Y N	Extractions <i>fluctuating - marked not in use</i>
	1		0.98 - 1.02	Y N	
	100		98.00 - 102.00	Y N	
	500		498 - 502	Y N	
70	1	1.01	0.98 - 1.02	(Y) N	Extractions
	100	99.82	98.00 - 102.00	(Y) N	
	500	499.18	498.00 - 502.00	(Y) N	
57	100	100.0	98.0-102.0	(Y) N	Extractions
	1000	1000.0	998.0-1002.0	(Y) N	
	2000	2000.0	1998.0-2002.0	(Y) N	
52	0.002	0.0020	0.0018 - 0.0022	(Y) N	Extractions
	1	0.9997	0.9990 - 1.0010	(Y) N	
	100	99.9955	99.9000 - 100.1000	(Y) N	
71	0.002	0.0020	0.0018 - 0.0022	(Y) N	BOD Room
	1	0.9996	0.9990 - 1.0010	(Y) N	
	100	99.9956	99.9000 - 100.1000	(Y) N	
63	0.1	0.10	0.09 - 0.11	(Y) N	BOD Room
	100	99.99	98.00 - 102.00	(Y) N	
64	1	1.01	0.98 - 1.02	(Y) N	Metals Clean Room
	10	10.01	9.8 - 10.2	(Y) N	
	100	100.00	98.00 - 102.00	(Y) N	
72	0.002	0.0021	0.0018 - 0.0022	(Y) N	Oil & Grease Room
	1	0.9995	0.9990 - 1.0010	(Y) N	
	100	100.0005	99.9000 - 100.1000	(Y) N	
30	1	1.01	0.98 - 1.02	(Y) N	Oil & Grease Room
	100	100.03	98.00 - 102.00	(Y) N	

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	8330 Surrogate	Restek	31453	A0124792	2/28/22	1 ml	G	4/27/17	262	5-14-17	785	
2												
3												
4												
5												
6												
7												
8												
9												
10												
11	Dichloromethane	EMD	DX0835	571076	4/26/20	200 L x 2	DRUM	4/26/17	142	4/26/17	142	
12	Custom PCB	AccuSTD	S-3850-R2	244051126	5/14/24	1 ml	G	4/28/17	262			
13												
14	8451 Spike	Chem Serv	M-CSM 84501 B99-5ML	5133 800	6/30/18	5 ml	G	5/1/17	262	6/22/17	1096	
15												
16												
17												
18	Sand	EMD	SX0075-30	XH 27A	5/2/22	1248 L x 2	P	5/2/17	285	5/2/17	285	
19	SVOC Custom STD	AccuSTD	S-22976	216041571-01	6/1/19	1 ml	G	5/15/17	262	6/15/17	904	Verified
20												
21												
22												
23												
24	Dichloromethane	SAND	DX0835	57118	5/15/20	200 L x 2	DRUM	5/15/17	142	5/15/17	142	
25	Hexane 95%		HX0295CS39	57037	5/15/20	200 L						95%

COMMENTS:

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	Sodium Sulfate Anhydrous	Fisher	8421-10	166736	1/31/22	10kg x 5	P	5/20/17	1109	5/22/17	1109	
2	Sodium Chloride	Fisher	5271-10	163664	1/31/22	10kg x 2	P	5/22/17	928	5/22/17	928	
3	Sodium chloride	Fisher	5271-10	167535	5-23-22	10kg x 5	P	5-23-17	785	5-23-17	785	
4	Acetonitrile	Fisher	A 9P8-4	165380	5-23-20	4L x 3	G	5-23-17	785	5-23-17	785	
5	↓	↓	↓	102849	↓	4L x 3	G	5-23-17	↓	↓	↓	
6	Filter paper 18.5cm	Fisher	09-790-14F	A 1003602	NA	100 sheets x 3	P	5-23-17	785	5-23-17	785	
7	↓	↓	↓	A 1018287	↓	100 sheets x 3	P	↓	↓	↓	↓	
8	Chlorinated Herbicides - 8150B	ChemService	MCS18151899-ML	513960	6/20/2018	1ml	G	5/24/17	944			
9	↓	↓	↓	↓	↓	↓	↓	↓	↓	6/6/17	1096	
10	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
12	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
13	EPN	Accustd	P-2205-A	216091279	9/27/18	1ml	G	5/25/17	421	6/21/17	421	
14	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
15	Sulfatep	Accustd	M-622-24	214011220-0	3/8/19	1ml	G	5/25/17	421			
16	Custom Pesticide STD	Accustd	S-22740-R1	213051032-5	08/24/18	1ml	G		669			
17	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
18	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
21	Ethanol	Accustd	M-80156/80151	214101327	10/21/24	1000g x 2 x 1ml	G	5/25/17	1078			
22	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
23	Tetraethyl lead	Accustd	S-1263	216101270	10/24/16	5 x 1ml	G	5/25/17	662	7-11-17	904	
24	Coal Tar	↓	ALR-0945-T	214101128-0	6/18/18	1 ml	G	↓	↓	↓	↓	
25	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
26	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	

COMMENTS:

26r 5-25-17

Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	8141 spike	Restek	32277	A0123432	12/20/17	1 ml	G	6/7/17	424			
2	↓									7/1/17	785	
3										7/1/17	785	
4										06/13/17	610	
5										06/23/17	610	
6												
7												
8												
9												
10												
11		Membrane disc Filter (S.T.L.C)	Pall	Supp-450	T60011	N/A	5 boxes	B	06/09/17	787	06/09/17	787
12	Dichloromethane	EMD	bx08216539	57132	6/8/2018	200L	PLUM	6/8/17	142	6/8/17	142	
13	Dibromochloromethane	AccuStd	M-502-17	215071153	7/14/2018	1 mL	G	6/9/17	1028			
14	↓											
15	Hexachloropentadien	Ultras	EPA-1123-1	CM-1765E	7/31/19	1 ml			669	06/26/17	669	
16	↓											
17	↓	Restek	32232	A0127073	4/2022					06/26/17	669	
18												
19												
20	8141 Custom STD	Ultras	CUS-11539	CR-2563	07/31/18							
21												
22												
23												
24												
25	Cellulose Filter for ASE 350	Restek	26168	105404	N/A	100PK 350	P	6-16-17	785	6-16-17	785	

COMMENTS:

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1708120

PO#

C012505850

September 6, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1708120

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September 6, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 09:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OV-04_17ET628_072817_EEL_02_WB	1708120-01	Tissue	28-Jul-17 14:22	03-Aug-17 09:40
OV-04_17ET628_072817_EEL_03_WB	1708120-02	Tissue	28-Jul-17 14:22	03-Aug-17 09:40
OV-04_17ET628_072817_EEL_04_WB	1708120-03	Tissue	28-Jul-17 14:22	03-Aug-17 09:40
OV-04_17ET628_072817_EEL_05_WB	1708120-04	Tissue	28-Jul-17 14:22	03-Aug-17 09:40
OV-04_17ET628_072817_EEL_06_WB	1708120-05	Tissue	28-Jul-17 14:22	03-Aug-17 09:40

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King**Reported:**
28-Aug-17 09:54

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 8/3/2017 9:40:00 AM . The samples were received intact, on-ice within two sealed coolers at -49.8 and -48.8 degrees Celsius.

The tissue samples were sent to Eurofins Calscience for % Lipids by NOAA 1993a after EFGS completed the homogenization. The final data can be found at the end of the report after the Mercury raw data. This report includes the level II report only. A revised report will be sent later with the level IV data package.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in batch F708302 and analyzed in sequence 7H10026. Sample 1708120-01 was used as the source QC per client request.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Eurofins Frontier Global Sciences, Inc.



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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 09:54

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

EFGS Work Order: 1708120
~~1708118~~ ^{LM} 8/3/17

Client: Ame c

Date & Time Received: 8/3/17 940

Date Labeled: 8/3/17 Labeled By: LM

Project: _____

Received By: CS P

Label Verified By: Bow

of Coolers Received: 1 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y N Temp Blank Used: Y N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>Y</u>	

TID: <u>3150</u>	CF: <u>+0.2 °C</u>	Date/time: <u>8/3/17 940</u>	By: <u>CS P</u>
Cooler 1: <u>-50 °C</u>	w/CF: <u>-49.8°C</u>	Cooler 4: <u>°C</u>	w/CF: <u>°C</u>
Cooler 2: <u>-49 °C</u>	w/CF: <u>-48.8°C</u>	Cooler 5: <u>°C</u>	w/CF: <u>°C</u>
Cooler 3: <u>°C</u>	w/CF: <u>°C</u>	Cooler 6: <u>°C</u>	w/CF: <u>°C</u>

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>MA</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>Y</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>MA</u>	

Anomalies/Non-conformances (attach additional pages if needed):

1708/20

Environmental Analysis Request/Chain of Custody



Page 1 of 1

Client: Amec Foster Wheeler / 511 Congress St, Suite 200 Portland, ME 04101					Matrix			Analyses Requested					For Lab Use Only							
Project Name#: USJC Penobscot					PN # 361E163052 04A 054			Preservation Codes					SF # _____							
Project Manager: Rod Pendleton					P.O. # _____								SCR # _____							
Sampler: JB/DL					PWSID # _____								Preservation Codes							
Phone # _____					Quote # _____								H-HC) I-HC) I-HC) I-HC)							
State where samples were collected: ME					For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								H-HC) I-HC) I-HC) I-HC)							
					Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>								H-HC) I-HC) I-HC) I-HC)							
					Degrade <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/>								H-HC) I-HC) I-HC) I-HC)							
					Water <input type="checkbox"/> NPDES <input type="checkbox"/> Tissue <input type="checkbox"/>								H-HC) I-HC) I-HC) I-HC)							
					Other: _____								H-HC) I-HC) I-HC) I-HC)							
					Total # of Containers								H-HC) I-HC) I-HC) I-HC)							
					Hg 10314, Lipids, NCA, LODs, 20 Bag, 5 trace								H-HC) I-HC) I-HC) I-HC)							
Sample Identification					Collection		Grab		Composite		Soil		Water		Other		Total # of Containers		Remarks	
					Date	Time														
1	OV_04_17FT628_072817_EEL_02_W3				7/28/2017	1422	X						X		1	X			Use volume for MS/MSD	
2	OV_04_17FT628_072817_EEL_03_WB				7/28/2017	1422	X						X		1	X				
3	OV_04_17FT628_072817_EEL_04_WB				7/28/2017	1422	X						X		1	X				
4	OV_04_17FT628_072817_EE_05_WB				7/28/2017	1422	X						X		1	X				
5	OV_04_17FT628_072817_EE_06_WB				7/28/2017	1422	X						X		1	X				
6							X						X		1	X				
7							X						X		1	X				
8							X						X		1	X				
9							X						X		1	X				
10							X						X		1	X				
11							X						X		1	X				
12							X						X		1	X				
13							X						X		1	X				
14							X						X		1	X				
Turnaround Time Requested (TAT) (please check):					Standard <input checked="" type="checkbox"/>		Rush <input type="checkbox"/>		Relinquished by: <i>[Signature]</i>		Date: 8/2/17		Time: 8:40		Received by: <i>[Signature]</i>		Date: 8/2/17		Time: 9:10	
Notes:									Relinquished by:		Date:		Time:		Received by: <i>[Signature]</i>		Date:		Time:	
FedEx # 8103 444 8131					# of Coolers 1				Relinquished by:		Date:		Time:		Received by: <i>[Signature]</i>		Date:		Time:	
Sample disposal - Hold Equipment Blanks * 4 (until 30 days after delivery of report)					Report and EDD to: dense.king@amec.com - 878 692 6633				Relinquished by:		Date:		Time:		Received by: <i>[Signature]</i>		Date:		Time:	
Data Package Options (please check if required):					High <input type="checkbox"/>		Standard <input checked="" type="checkbox"/>		Relinquished by Commercial Carrier:											
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					If yes, format: _____				UPS _____		FedEx _____		Other _____		Temperature upon receipt _____ °C					

ya
-49.8°C
Fndy
9/10

8103 4444 8602
8103 4444 8131



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 09:54

OV-04_17ET628_072817_EEL_02_WB
1708120-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	320	1.70	15.2	ng/g	400	F708302	04-Aug-17	7H10026	10-Aug-17	EPA 1631B	
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AMEC Foster Wheeler
271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 09:54

OV-04_17ET628_072817_EEL_03_WB
1708120-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	176	1.56	13.9	ng/g	400	F708302	04-Aug-17	7H10026	10-Aug-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 09:54

OV-04_17ET628_072817_EEL_04_WB
1708120-03

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	161	1.56	13.9	ng/g	400	F708302	04-Aug-17	7H10026	10-Aug-17	EPA 1631B	



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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 09:54

OV-04_17ET628_072817_EEL_05_WB
1708120-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	153	1.69	15.1	ng/g	400	F708302	04-Aug-17	7H10026	10-Aug-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 09:54

OV-04_17ET628_072817_EEL_06_WB
1708120-05

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	142	1.83	16.3	ng/g	400	F708302	04-Aug-17	7H10026	10-Aug-17	EPA 1631B	

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 09:54

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7H10026 - F708302											
Cal Standard (7H10026-CAL1)						Prepared & Analyzed: 10-Aug-17					
Mercury	0.520	-		ng/L	0.50100		104				
Cal Standard (7H10026-CAL2)						Prepared & Analyzed: 10-Aug-17					
Mercury	1.020	-		ng/L	1.0020		102				
Cal Standard (7H10026-CAL3)						Prepared & Analyzed: 10-Aug-17					
Mercury	4.970	-		ng/L	5.0100		99.2				
Cal Standard (7H10026-CAL4)						Prepared & Analyzed: 10-Aug-17					
Mercury	19.56	-		ng/L	20.040		97.6				
Cal Standard (7H10026-CAL5)						Prepared & Analyzed: 10-Aug-17					
Mercury	38.70	-		ng/L	40.080		96.5				
Calibration Blank (7H10026-CCB1)						Prepared & Analyzed: 10-Aug-17					
Mercury	0.022	-		ng/L							
Calibration Blank (7H10026-CCB2)						Prepared & Analyzed: 10-Aug-17					
Mercury	0.00009	-		ng/L							
Calibration Blank (7H10026-CCB3)						Prepared & Analyzed: 10-Aug-17					
Mercury	0.045	-		ng/L							
Calibration Blank (7H10026-CCB4)						Prepared & Analyzed: 10-Aug-17					
Mercury	0.089	-		ng/L							
Calibration Blank (7H10026-CCB5)						Prepared & Analyzed: 10-Aug-17					
Mercury	0.055	-		ng/L							

Eurofins Frontier Global Sciences, Inc.



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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 09:54

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7H10026 - F708302											
Calibration Blank (7H10026-CCB6) Prepared & Analyzed: 10-Aug-17											
Mercury	0.110	-		ng/L							
Calibration Blank (7H10026-CCB7) Prepared & Analyzed: 10-Aug-17											
Mercury	0.091	-		ng/L							
Calibration Check (7H10026-CCV1) Prepared & Analyzed: 10-Aug-17											
Mercury	4.961	-		ng/L	5.0000		99.2	77-123			
Calibration Check (7H10026-CCV2) Prepared & Analyzed: 10-Aug-17											
Mercury	4.955	-		ng/L	5.0000		99.1	77-123			
Calibration Check (7H10026-CCV3) Prepared & Analyzed: 10-Aug-17											
Mercury	4.992	-		ng/L	5.0000		99.8	77-123			
Calibration Check (7H10026-CCV4) Prepared & Analyzed: 10-Aug-17											
Mercury	4.886	-		ng/L	5.0000		97.7	77-123			
Calibration Check (7H10026-CCV5) Prepared & Analyzed: 10-Aug-17											
Mercury	5.032	-		ng/L	5.0000		101	77-123			
Calibration Check (7H10026-CCV6) Prepared & Analyzed: 10-Aug-17											
Mercury	5.100	-		ng/L	5.0000		102	77-123			
Calibration Check (7H10026-CCV7) Prepared & Analyzed: 10-Aug-17											
Mercury	5.133	-		ng/L	5.0000		103	77-123			
Instrument Blank (7H10026-IBL1) Prepared & Analyzed: 10-Aug-17											
Mercury	ND	0.004	0.040	ng/L							U

AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: WO-04A-050 Project Manager: Denise King	Reported: 28-Aug-17 09:54
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7H10026 - F708302

Instrument Blank (7H10026-IBL2)					Prepared & Analyzed: 10-Aug-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7H10026-IBL3)					Prepared & Analyzed: 10-Aug-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7H10026-ICV1)					Prepared & Analyzed: 10-Aug-17						
Mercury	4.972	-		ng/L	5.0000		99.4	79-121			

Batch F708302 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F708302-BLK1)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	0.131	0.090	0.800	ng/g							J
Blank (F708302-BLK2)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	ND	0.090	0.800	ng/g							U
Blank (F708302-BLK3)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	ND	0.090	0.800	ng/g							U
Blank (F708302-BLK4)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	ND	0.082	0.730	ng/g							FB, U
LCS (F708302-BS1)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	6.643	0.082	0.728	ng/g	7.2926		91.1	75-125			
LCS (F708302-BS2)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	322.1	3.34	29.8	ng/g	382.50		84.2	75-125			

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 09:54

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F708302 - EFGS-011 Nitric/Sulfuric Hg Digestion

LCS Dup (F708302-BSD1)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	6.833	0.079	0.702	ng/g	7.0316		97.2	75-125	6.47	24	
Duplicate (F708302-DUP2)					Source: 1708120-01 Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	304.9	1.55	13.9	ng/g		320.0			4.84	24	
Matrix Spike (F708302-MS2)					Source: 1708120-02 Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	508.4	1.53	13.7	ng/g	342.23	175.8	97.2	71-125			
Matrix Spike (F708302-MS3)					Source: 1708120-01 Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	624.4	1.56	14.0	ng/g	348.80	320.0	87.3	71-125			
Matrix Spike Dup (F708302-MSD2)					Source: 1708120-02 Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	518.7	1.63	14.5	ng/g	363.37	175.8	94.3	71-125	2.95	24	
Matrix Spike Dup (F708302-MSD3)					Source: 1708120-01 Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	661.1	1.75	15.7	ng/g	391.39	320.0	87.2	71-125	0.135	24	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 09:54

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- FB This blank is a filtration blank. Data is reported for informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Analysis Datasheet for Total Mercury

Date of Analysis: August 10, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7H10026, 7H10027

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	66.35 units	132.70	59.69 units	119.38	104.0 %Rec
SEQ-CAL2	1	1.00 ng/L	123.73 units	123.73	117.07 units	117.07	102.0 %Rec
SEQ-CAL3	1	5.00 ng/L	577.00 units	115.40	570.34 units	114.07	99.4 %Rec
SEQ-CAL4	1	20.00 ng/L	2250.90 units	112.55	2244.24 units	112.21	97.8 %Rec
SEQ-CAL5	1	40.00 ng/L	4446.82 units	111.17	4440.16 units	111.00	96.7 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
114.75	+/- 3.46	3.0% RSD	119.11

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IRL	3	6.66 units	+1.46	0.06 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	2	0.600 ng/L	±0.409
BLK	2	3	1.130 ng/L	±0.450
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE

PEER-REVIEWED

 INITIALS: on 8/11/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	SAM	F708302-BS2	400	8/10/2017 11:50:55	72970-1.RAW	11:50:55 AM	827.37	2		620.7	5.407	2162.625	ng/L	
Hg2600-3	BC	SAM	1708004-01	100	8/10/2017 11:55:03	72971-1.RAW	11:55:03 AM	1141.66	2		1135.0	9.880	988.001	ng/L	
Hg2600-3	BC	SAM	1708118-01	400	8/10/2017 11:59:12	72972-1.RAW	11:59:12 AM	138.66	2		131.9	1.147	458.665	ng/L	
Hg2600-3	BC	SAM	1708118-02	400	8/10/2017 12:03:20	72973-1.RAW	12:03:20 PM	124.43	2		117.8	1.024	409.409	ng/L	
Hg2600-3	BC	SAM	1708118-03	400	8/10/2017 12:07:29	72974-1.RAW	12:07:29 PM	149.66	2		143.3	1.246	498.405	ng/L	
Hg2600-3	BC	SAM	1708118-04	400	8/10/2017 12:11:37	72975-1.RAW	12:11:37 PM	140.64	2		134.0	1.165	455.916	ng/L	
Hg2600-3	BC	SAM	1708118-05	400	8/10/2017 12:15:45	72976-1.RAW	12:15:45 PM	130.98	2		124.3	1.081	432.242	ng/L	
Hg2600-3	BC	SAM	1708120-01	400	8/10/2017 12:19:54	72977-1.RAW	12:19:54 PM	1216.11	2		1209.5	10.537	4214.935	ng/L	
Hg2600-3	BC	SAM	1708120-02	400	8/10/2017 12:24:02	72978-1.RAW	12:24:02 PM	730.60	2		723.9	6.306	2522.478	ng/L	
Hg2600-3	BC	SAM	1708120-03	400	8/10/2017 12:28:11	72979-1.RAW	12:28:11 PM	670.66	2		664.0	5.784	2313.531	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	8/10/2017 12:32:15	72980-1.RAW	12:32:19 PM	581.06			577.4	5.032	5.032	ng/L	
Hg2600-3	BC	CAL	SEQ-CCR5	1	8/10/2017 12:36:27	72981-1.RAW	12:36:27 PM	12.97			6.3	0.055	0.055	ng/L	
Hg2600-3	BC	SAM	1708120-04	400	8/10/2017 12:40:36	72982-1.RAW	12:40:36 PM	566.83	2		580.2	5.053	2021.305	ng/L	
Hg2600-3	BC	SAM	1708120-05	400	8/10/2017 12:44:44	72983-1.RAW	12:44:44 PM	505.38	2		498.7	4.343	1737.376	ng/L	
Hg2600-3	BC	SAM	1708118-01RC1	100	8/10/2017 12:48:53	72984-1.RAW	12:48:53 PM	456.42	2		489.8	4.257	425.688	ng/L	
Hg2600-3	BC	SAM	1708118-02RF1	100	8/10/2017 12:53:01	72985-1.RAW	12:53:01 PM	470.80	2		454.1	4.034	403.361	ng/L	
Hg2600-3	BC	SAM	1708118-03RE1	100	8/10/2017 12:57:10	72986-1.RAW	12:57:10 PM	551.14	2		544.5	4.734	473.376	ng/L	
Hg2600-3	BC	SAM	1708118-04RE1	100	8/10/2017 13:01:18	72987-1.RAW	1:01:18 PM	520.87	2		514.2	4.470	445.995	ng/L	
Hg2600-3	BC	SAM	1708118-05RE1	100	8/10/2017 13:05:26	72988-1.RAW	1:05:26 PM	496.46	2		491.8	4.275	427.466	ng/L	
Hg2600-3	BC	SAM	F708302-DUP1	100	8/10/2017 13:14:30	72989-1.RAW	1:14:30 PM	4896.67	2		4890.0	42.604	4260.435	ng/L	
Hg2600-3	BC	SAM	F708302-MS1	400	8/10/2017 13:18:39	72990-1.RAW	1:18:39 PM	2534.86	2		2528.2	22.030	8812.013	ng/L	
Hg2600-3	BC	SAM	F708302-MSD1	400	8/10/2017 13:22:47	72991-1.RAW	1:22:47 PM	2411.91	2		2405.3	20.959	8383.418	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	8/10/2017 13:26:58	72992-1.RAW	1:26:56 PM	591.94			585.2	5.100	5.100	ng/L	
Hg2600-3	BC	CAL	SEQ-CLB6	1	8/10/2017 13:31:04	72993-1.RAW	1:31:04 PM	19.24			12.6	0.110	0.110	ng/L	
Hg2600-3	BC	SAM	F708302-MS2	400	8/10/2017 13:35:12	72994-1.RAW	1:35:12 PM	2137.76	2		2131.1	18.569	7427.748	ng/L	
Hg2600-3	BC	SAM	F708302-MSD2	400	8/10/2017 13:39:21	72995-1.RAW	1:39:21 PM	2054.35	2		2047.7	17.842	7136.966	ng/L	
Hg2600-3	BC	SAM	F708302-DUP2	400	8/10/2017 13:43:29	72996-1.RAW	1:43:29 PM	1270.00	2		1263.3	11.007	4402.792	ng/L	
Hg2600-3	BC	SAM	F708302-MS3	400	8/10/2017 13:47:38	72997-1.RAW	1:47:38 PM	2574.79	2		2568.1	22.378	8951.207	ng/L	
Hg2600-3	BC	SAM	F708302-MSD3	400	8/10/2017 13:51:48	72998-1.RAW	1:51:46 PM	2429.88	2		2423.2	21.115	8446.060	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	8/10/2017 13:55:55	72999-1.RAW	1:55:55 PM	595.66			589.0	5.133	5.133	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	8/10/2017 14:00:03	73000-1.RAW	2:00:03 PM	17.08			10.4	0.091	0.091	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	CAL	SEQ-IBL1	1	8/10/2017 7:54:07	72913-1.RAW	7:54:01 AM	5.00			-1.7	-0.014	-0.014	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	8/10/2017 7:58:09	72914-1.RAW	7:58:09 AM	7.22			0.5	0.005	0.005	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	8/10/2017 8:02:18	72915-1.RAW	8:02:18 AM	7.76			1.1	0.010	0.010	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	8/10/2017 8:06:26	72916-1.RAW	8:06:26 AM	86.35			59.7	0.520	0.520	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	8/10/2017 8:10:35	72917-1.RAW	8:10:35 AM	123.73			117.1	1.020	1.020	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	8/10/2017 8:14:43	72918-1.RAW	8:14:43 AM	577.00			570.3	4.970	4.970	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	8/10/2017 8:18:51	72919-1.RAW	8:18:51 AM	2250.90			2244.2	19.558	19.558	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	8/10/2017 8:23:00	72920-1.RAW	8:23:00 AM	4146.82			4440.2	38.695	38.695	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	8/10/2017 8:27:08	72921-1.RAW	8:27:08 AM	577.14			570.5	4.972	4.972	ng/L	
Hg2600-3	BC	BLK	F707534-BLK1	10	8/10/2017 8:32:11	72922-1.RAW	8:32:11 AM	16.67	1		10.2	0.089	0.890	ng/L	
Hg2600-3	BC	BLK	F707534-BLK2	10	8/10/2017 8:36:19	72923-1.RAW	8:36:19 AM	10.23	1		3.6	0.031	0.311	ng/L	
Hg2600-3	BC	SAM	F707534-BS1	100	8/10/2017 8:40:28	72924-1.RAW	8:40:28 AM	237.79	1		231.1	2.008	200.826	ng/L	
Hg2600-3	BC	SAM	F707534-BSD1	100	8/10/2017 8:44:36	72925-1.RAW	8:44:36 AM	256.85	1		250.2	2.174	217.436	ng/L	
Hg2600-3	BC	SAM	1707619-11	100	8/10/2017 8:48:46	72926-1.RAW	8:48:46 AM	199.90	1		193.3	1.679	167.875	ng/L	
Hg2600-3	BC	SAM	1707619-14	100	8/10/2017 8:52:53	72927-1.RAW	8:52:53 AM	154.78	1		148.1	1.285	128.484	ng/L	
Hg2600-3	BC	SAM	1707619-15	100	8/10/2017 8:57:01	72928-1.RAW	8:57:01 AM	1642.51	1		1635.9	14.250	1425.017	ng/L	
Hg2600-3	BC	SAM	1707619-16	100	8/10/2017 9:01:10	72929-1.RAW	9:01:10 AM	172.60	1		165.8	1.439	143.926	ng/L	
Hg2600-3	BC	SAM	1707619-17	100	8/10/2017 9:05:18	72930-1.RAW	9:05:18 AM	228.39	1		221.7	1.926	192.634	ng/L	
Hg2600-3	BC	SAM	1707619-18	100	8/10/2017 9:09:27	72931-1.RAW	9:09:27 AM	32.13	1		25.5	0.216	21.596	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	8/10/2017 9:13:35	72932-1.RAW	9:13:35 AM	575.93			569.3	4.961	4.961	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	8/10/2017 9:17:43	72933-1.RAW	9:17:43 AM	9.24			2.6	0.022	0.022	ng/L	
Hg2600-3	BC	SAM	1707619-19	100	8/10/2017 9:21:52	72934-1.RAW	9:21:52 AM	1603.35	1		1596.7	13.909	1390.889	ng/L	
Hg2600-3	BC	SAM	1707619-20	100	8/10/2017 9:26:00	72935-1.RAW	9:26:00 AM	3960.51	1		3953.0	34.451	3445.117	ng/L	
Hg2600-3	BC	SAM	1707619-21	100	8/10/2017 9:30:09	72936-1.RAW	9:30:09 AM	1831.38	1		1824.7	15.896	1589.614	ng/L	
Hg2600-3	BC	SAM	1707619-22	100	8/10/2017 9:34:17	72937-1.RAW	9:34:17 AM	2650.43	1		2643.8	23.034	2303.403	ng/L	
Hg2600-3	BC	SAM	1707619-23	100	8/10/2017 9:38:25	72938-1.RAW	9:38:25 AM	780.93	1		783.3	6.820	682.007	ng/L	
Hg2600-3	BC	SAM	1707619-24	100	8/10/2017 9:42:34	72939-1.RAW	9:42:34 AM	166.41	1		159.8	1.386	138.610	ng/L	
Hg2600-3	BC	SAM	1707619-25	100	8/10/2017 9:46:42	72940-1.RAW	9:46:42 AM	1625.13	1		1618.5	14.099	1409.870	ng/L	
Hg2600-3	BC	SAM	1707619-26	100	8/10/2017 9:50:51	72941-1.RAW	9:50:51 AM	1437.72	1		1431.1	12.455	1246.545	ng/L	
Hg2600-3	BC	SAM	1707619-27	100	8/10/2017 9:54:59	72942-1.RAW	9:54:59 AM	112.45	1		105.8	0.915	91.594	ng/L	
Hg2600-3	BC	SAM	1707619-28	100	8/10/2017 9:59:08	72943-1.RAW	9:59:08 AM	27.71	1		21.1	0.177	17.744	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	8/10/2017 10:03:16	72944-1.RAW	10:03:16 AM	575.23			568.6	4.955	4.955	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	8/10/2017 10:07:24	72945-1.RAW	10:07:24 AM	6.87			0.0	0.000	0.000	ng/L	
Hg2600-3	BC	SAM	1707619-29	100	8/10/2017 10:11:33	72946-1.RAW	10:11:33 AM	1358.79	1		1352.1	11.778	1177.759	ng/L	
Hg2600-3	BC	SAM	1707619-30	100	8/10/2017 10:15:41	72947-1.RAW	10:15:41 AM	81.86	1		75.2	0.649	64.935	ng/L	
Hg2600-3	BC	SAM	1707619-31	100	8/10/2017 10:19:50	72948-1.RAW	10:19:50 AM	28.51	1		21.9	0.184	18.441	ng/L	
Hg2600-3	BC	SAM	1707620-02	100	8/10/2017 10:23:58	72949-1.RAW	10:23:58 AM	35.15	1		28.5	0.242	24.228	ng/L	
Hg2600-3	BC	SAM	1707619-18RE1	10	8/10/2017 10:28:07	72950-1.RAW	10:28:07 AM	258.30	1		249.6	2.116	21.155	ng/L	
Hg2600-3	BC	SAM	1707619-27RE1	10	8/10/2017 10:32:15	72951-1.RAW	10:32:15 AM	922.25	1		915.6	7.919	79.192	ng/L	
Hg2600-3	BC	SAM	1707619-28RE1	10	8/10/2017 10:36:23	72952-1.RAW	10:36:23 AM	202.82	1		195.7	1.645	16.451	ng/L	
Hg2600-3	BC	SAM	1707619-30RE1	10	8/10/2017 10:40:32	72953-1.RAW	10:40:32 AM	750.40	1		743.7	6.422	64.215	ng/L	
Hg2600-3	BC	SAM	1707619-31RE1	10	8/10/2017 10:44:40	72954-1.RAW	10:44:40 AM	235.45	1		228.8	1.934	19.338	ng/L	
Hg2600-3	BC	SAM	1707620-02RE1	10	8/10/2017 10:48:49	72955-1.RAW	10:48:49 AM	295.05	1		288.4	2.453	24.533	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	8/10/2017 10:52:57	72956-1.RAW	10:52:57 AM	579.51			572.9	4.992	4.992	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	8/10/2017 10:57:05	72957-1.RAW	10:57:05 AM	11.75			5.1	0.045	0.045	ng/L	
Hg2600-3	BC	SAM	F707534-MS1	100	8/10/2017 11:01:14	72958-1.RAW	11:01:14 AM	738.49	1		731.8	6.376	2550.408	ng/L	
Hg2600-3	BC	SAM	F707534-MSD1	400	8/10/2017 11:05:22	72959-1.RAW	11:05:22 AM	692.41	1		685.8	5.975	2389.880	ng/L	
Hg2600-3	BC	SAM	F707534-MS2	400	8/10/2017 11:09:31	72960-1.RAW	11:09:31 AM	1134.31	1		1127.7	9.826	3930.315	ng/L	
Hg2600-3	BC	SAM	F707534-MSD2	400	8/10/2017 11:13:39	72961-1.RAW	11:13:39 AM	1190.99	1		1184.3	10.320	4127.898	ng/L	
Hg2600-3	BC	BLK	F708302-BLK1	20	8/10/2017 11:17:48	72962-1.RAW	11:17:48 AM	18.09	2		9.4	0.082	1.644	ng/L	
Hg2600-3	BC	BLK	F708302-BLK2	20	8/10/2017 11:21:56	72963-1.RAW	11:21:56 AM	11.28	2		4.6	0.040	0.802	ng/L	
Hg2600-3	BC	BLK	F708302-BLK3	20	8/10/2017 11:26:04	72964-1.RAW	11:26:04 AM	12.03	2		5.4	0.047	0.945	ng/L	
Hg2600-3	BC	SAM	F708302-BLK4	20	8/10/2017 11:30:13	72965-1.RAW	11:30:13 AM	10.68	2		3.9	-0.023	-0.450	ng/L	
Hg2600-3	BC	SAM	F708302-BS1	20	8/10/2017 11:34:21	72966-1.RAW	11:34:21 AM	535.82	2		530.2	4.564	91.275	ng/L	
Hg2600-3	BC	SAM	F708302-BSD1	20	8/10/2017 11:38:30	72967-1.RAW	11:38:30 AM	571.82	2		565.2	4.869	97.376	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	8/10/2017 11:42:38	72968-1.RAW	11:42:38 AM	567.28			560.5	4.886	4.886	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB4	1	8/10/2017 11:46:46	72969-1.RAW	11:46:46 AM	18.85			10.2	0.089	0.089	ng/L	

TotalMercury
EPA1631

Operat BC BlankSi 6.6609 Calib Eqn: Conc = (Area-6.660 Run Date: 8/10/2017 Blank SD: 1.460992236
 Worksh THg260(CalibFa 114.74 Status: QC Warnings:5/QC E Run Time: 13:10:21 Blank RSD%: 21.93384191
 Method ##### R: 1 R2: 1 CF SD: 3.451711905
 Descrip THg26003-170810-1 CF RSD%: 3.00818576

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	1.43					72908-1.RAW	7:34:36	164.55	Clean	OK	1
clean										72909-1.RAW	7:37:27	0.00	Clean	NP	1
ws				6.66	0.00					72910-1.RAW	7:41:36	4.10	Sample	OK	1
ws										72911-1.RAW	7:45:44	0.00	Sample	NP	1
ws				6.66	0.00					72912-1.RAW	7:49:52	3.84	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.04					72913-1.RAW	7:54:01	5.00	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.06					72914-1.RAW	7:58:09	7.22	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.07					72915-1.RAW	8:02:18	7.76	Sample	OK	1
SEQ-CAL1	A4		1	6.66	0.52		104.03			72916-1.RAW	8:06:26	66.35	Sample	OK	1
SEQ-CAL2	A5		1	6.66	1.02		102.02			72917-1.RAW	8:10:35	123.73	Sample	OK	1
SEQ-CAL3	A6		1	6.66	4.97		99.41			72918-1.RAW	8:14:43	577.00	Sample	OK	1
SEQ-CAL4	A7		1	6.66	19.56		97.79			72919-1.RAW	8:18:51	2250.90	Sample	OK	1
SEQ-CAL5	A8		1	6.66	38.70		96.74			72920-1.RAW	8:23:00	4446.82	Sample	OK	1
SEQ-ICV1	A9		1	6.66	4.97		99.43			72921-1.RAW	8:27:08	577.14	Sample	OK	1
F707534-BLK1	A10		10	6.66	0.89					72922-1.RAW	8:32:11	16.87	Sample	OK	1
F707534-BLK2	A11		10	6.66	0.31					72923-1.RAW	8:36:19	10.23	Sample	OK	1
F707534-BS1	A12		100	6.66	201.43					72924-1.RAW	8:40:28	237.79	Sample	OK	1
F707534-BSD1	B1		100	6.66	218.04					72925-1.RAW	8:44:36	256.85	Sample	OK	1
1707619-11	B2		100	6.66	168.48					72926-1.RAW	8:48:45	199.98	Sample	OK	1
1707619-14	B3		100	6.66	129.09					72927-1.RAW	8:52:53	154.78	Sample	OK	1
1707619-15	B4		100	6.66	1425.65					72928-1.RAW	8:57:01	1642.51	Sample	OK	1
1707619-16	B5		100	6.66	144.53					72929-1.RAW	9:01:10	172.50	Sample	OK	1
1707619-17	B6		100	6.66	193.24					72930-1.RAW	9:05:18	228.39	Sample	OK	1
1707619-18	B7		100	6.66	22.20					72931-1.RAW	9:09:27	32.13	Sample	OK	1
SEQ-CCV1	B8		1	6.66	4.96		99.22			72932-1.RAW	9:13:35	575.93	Sample	OK	1
SEQ-CCB1	B9		1	6.66	0.02		0.00			72933-1.RAW	9:17:43	9.24	Sample	OK	1
1707619-19	B10		100	6.66	1391.52					72934-1.RAW	9:21:52	1603.35	Sample	OK	1
1707619-20	B11		100	6.66	3445.80					72935-1.RAW	9:26:00	3960.51	Sample	FB	1
1707619-21	B12		100	6.66	1590.25					72936-1.RAW	9:30:09	1831.38	Sample	OK	1
1707619-22	C1		100	6.66	2304.06					72937-1.RAW	9:34:17	2650.43	Sample	OK	1
1707619-23	C2		100	6.66	682.62					72938-1.RAW	9:38:25	789.93	Sample	OK	1
1707619-24	C3		100	6.66	139.22					72939-1.RAW	9:42:34	166.41	Sample	OK	1
1707619-25	C4		100	6.66	1410.51					72940-1.RAW	9:46:42	1625.13	Sample	OK	1
1707619-26	C5		100	6.66	1247.17					72941-1.RAW	9:50:51	1437.72	Sample	OK	1
1707619-27	C6		100	6.66	92.20					72942-1.RAW	9:54:59	112.45	Sample	OK	1
1707619-28	C7		100	6.66	18.34					72943-1.RAW	9:59:08	27.71	Sample	OK	1
SEQ-CCV2	C8		1	6.66	4.96		99.10			72944-1.RAW	10:03:16	575.23	Sample	OK	1
SEQ-CCB2	C9		1	6.66	0.00		0.00			72945-1.RAW	10:07:24	6.67	Sample	OK	1
1707619-29	C10		100	6.66	1178.39					72946-1.RAW	10:11:33	1358.79	Sample	OK	1
1707619-30	C11		100	6.66	65.53					72947-1.RAW	10:15:41	81.86	Sample	OK	1
1707619-31	C12		100	6.66	19.04					72948-1.RAW	10:19:50	28.51	Sample	OK	1
1707620-02	D1		100	6.66	24.83					72949-1.RAW	10:23:58	35.15	Sample	OK	1
1707619-18RE1	D2		10	6.66	21.76					72950-1.RAW	10:28:07	256.30	Sample	OK	1

1707619-27RE1	D3	10	6.66	79.79		72951-1.RAW	10:32:15	922.25	Sample	OK	1
1707619-28RE1	D4	10	6.66	17.05		72952-1.RAW	10:36:23	202.32	Sample	OK	1
1707619-30RE1	D5	10	6.66	64.82		72953-1.RAW	10:40:32	750.40	Sample	OK	1
1707619-31RE1	D6	10	6.66	19.94		72954-1.RAW	10:44:40	235.45	Sample	OK	1
1707620-02RE1	D7	10	6.66	25.13		72955-1.RAW	10:48:49	295.06	Sample	OK	1
SEQ-CCV3	D8	1	6.66	4.99	99.85	72956-1.RAW	10:52:57	579.51	Sample	OK	1
SEQ-CCB3	D9	1	6.66	0.04	0.00	72957-1.RAW	10:57:05	11.78	Sample	OK	1
F707534-MS1	D10	400	6.66	2551.08	244215.67	72958-1.RAW	11:01:14	738.46	Sample	OK	1
F707534-MSD1	D11	400	6.66	2390.54		72959-1.RAW	11:05:22	692.41	Sample	OK	1
F707534-MS2	D12	400	6.66	3931.02	164.30	72960-1.RAW	11:09:31	1134.31	Sample	OK	1
F707534-MSD2	A1	400	6.66	4128.59		72961-1.RAW	11:13:39	1190.99	Sample	OK	1
F708302-BLK1	A2	20	6.66	1.64		72962-1.RAW	11:17:48	16.09	Sample	OK	1
F708302-BLK2	A3	20	6.66	0.80		72963-1.RAW	11:21:56	11.26	Sample	OK	1
F708302-BLK3	A4	20	6.66	0.95		72964-1.RAW	11:26:04	12.08	Sample	OK	1
F708302-BLK4	A5	20	6.66	0.68		72965-1.RAW	11:30:13	10.56	Sample	OK	1
F708302-BS1	A6	20	6.66	92.41		72966-1.RAW	11:34:21	536.82	Sample	OK	1
F708302-BSD1	A7	20	6.66	98.51		72967-1.RAW	11:38:30	571.82	Sample	OK	1
SEQ-CCV4	A8	1	6.66	4.89	97.72	72968-1.RAW	11:42:38	567.28	Sample	OK	1
SEQ-CCB4	A9	1	6.66	0.09	0.00	72969-1.RAW	11:46:46	16.85	Sample	OK	1
F708302-BS2	A10	400	6.66	2163.80		72970-1.RAW	11:50:55	627.37	Sample	OK	1
1708084-01	A11	100	6.66	989.16		72971-1.RAW	11:55:03	1141.66	Sample	OK	1
1708118-01	A12	400	6.66	459.80		72972-1.RAW	11:59:12	138.56	Sample	OK	1
1708118-02	B1	400	6.66	410.53		72973-1.RAW	12:03:20	124.43	Sample	OK	1
1708118-03	B2	400	6.66	499.53		72974-1.RAW	12:07:29	149.96	Sample	OK	1
1708118-04	B3	400	6.66	467.04		72975-1.RAW	12:11:37	140.64	Sample	OK	1
1708118-05	B4	400	6.66	433.38		72976-1.RAW	12:15:45	130.98	Sample	OK	1
1708120-01	B5	400	6.66	4216.17		72977-1.RAW	12:19:54	1216.11	Sample	OK	1
1708120-02	B6	400	6.66	2523.68		72978-1.RAW	12:24:02	730.60	Sample	OK	1
1708120-03	B7	400	6.66	2314.70		72979-1.RAW	12:28:11	670.66	Sample	OK	1
SEQ-CCV5	B8	1	6.66	5.03	100.64	72980-1.RAW	12:32:19	584.06	Sample	OK	1
SEQ-CCB5	B9	1	6.66	0.05	0.00	72981-1.RAW	12:36:27	12.97	Sample	OK	1
1708120-04	B10	400	6.66	2022.47		72982-1.RAW	12:40:36	586.83	Sample	OK	1
1708120-05	B11	400	6.66	1738.56		72983-1.RAW	12:44:44	505.38	Sample	OK	1
1708118-01RE1	B12	100	6.66	426.83		72984-1.RAW	12:48:53	496.42	Sample	OK	1
1708118-02RE1	C1	100	6.66	404.50		72985-1.RAW	12:53:01	470.80	Sample	OK	1
1708118-03RE1	C2	100	6.66	474.52		72986-1.RAW	12:57:10	551.14	Sample	OK	1
1708118-04RE1	C3	100	6.66	448.14		72987-1.RAW	13:01:18	520.87	Sample	OK	1
1708118-05RE1	C4	100	6.66	428.61		72988-1.RAW	13:05:26	498.46	Sample	OK	1
F708302-DUP1	C5	100	6.66	4261.87		72989-1.RAW	13:14:30	4896.67	Sample	OK	1
F708302-MS1	C6	400	6.66	8813.34	206.76	72990-1.RAW	13:18:39	2534.86	Sample	OK	1
F708302-MSD1	C7	400	6.66	8384.76		72991-1.RAW	13:22:47	2411.91	Sample	OK	1
SEQ-CCV6	C8	1	6.66	5.10	102.00	72992-1.RAW	13:26:56	591.84	Sample	OK	1
SEQ-CCB6	C9	1	6.66	0.11	0.00	72993-1.RAW	13:31:04	19.24	Sample	OK	1
F708302-MS2	C10	400	6.66	7429.07	352150.22	72994-1.RAW	13:35:12	2137.76	Sample	OK	1
F708302-MSD2	C11	400	6.66	7138.28		72995-1.RAW	13:39:21	2054.35	Sample	OK	1
F708302-DUP2	C12	400	6.66	4404.03		72996-1.RAW	13:43:29	1270.00	Sample	OK	1
F708302-MS3	D1	400	6.66	8952.54	203.14	72997-1.RAW	13:47:38	2574.79	Sample	OK	1
F708302-MSD3	D2	400	6.66	8447.39		72998-1.RAW	13:51:46	2429.88	Sample	FB	1

SEQ-CCV7	D3	1	6.66	5.13	102.66	72999-1.RAW	13:55:55	595.66 Sample	OK	1
SEQ-CCB7	D4	1	6.66	0.09	0.00	73000-1.RAW	14:00:03	17.08 Sample	OK	1

ANALYSIS SEQUENCE

7H10026



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H10026-IBL1	QC	1			
7H10026-IBL2	QC	2			
7H10026-IBL3	QC	3			
7H10026-CAL1	QC	4	1704505		
7H10026-CAL2	QC	5	1704506		
7H10026-CAL3	QC	6	1704507		
7H10026-CAL4	QC	7	1704508		
7H10026-CAL5	QC	8	1704509		
7H10026-ICV1	QC	9	1703679		
7H10026-CCV1	QC	10	1703679		
7H10026-CCB1	QC	11			
7H10026-CCV2	QC	12	1703679		
7H10026-CCB2	QC	13			
7H10026-CCV3	QC	14	1703679		
7H10026-CCB3	QC	15			
F708302-BLK1	QC	16			
F708302-BLK2	QC	17			
F708302-BLK3	QC	18			
F708302-BLK4	QC	19			
F708302-BS1	QC	20			
F708302-BSD1	QC	21			
7H10026-CCV4	QC	22	1703679		
7H10026-CCB4	QC	23			
F708302-BS2	QC	24			
1708084-01	Hg-CVAFS-T-7030	25			Scan all data for level IV report
1708118-01	Hg-CVAFS-T-7030	26			
1708118-02	Hg-CVAFS-T-7030	27			
1708118-03	Hg-CVAFS-T-7030	28			
1708118-04	Hg-CVAFS-T-7030	29			
1708118-05	Hg-CVAFS-T-7030	30			
1708120-01	Hg-CVAFS-T-7030	31			
1708120-02	Hg-CVAFS-T-7030	32			
1708120-03	Hg-CVAFS-T-7030	33			
7H10026-CCV5	QC	34	1703679		
7H10026-CCB5	QC	35			

Due Date: 8/30/2017

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ANALYSIS SEQUENCE

7H10026



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708120-04	Hg-CVAFS-T-7030	36			
1708120-05	Hg-CVAFS-T-7030	37			
1708118-01RE1	Hg-CVAFS-T-7030	38			Added 8/10/2017 by BC
1708118-02RE1	Hg-CVAFS-T-7030	39			Added 8/10/2017 by BC
1708118-03RE1	Hg-CVAFS-T-7030	40			Added 8/10/2017 by BC
1708118-04RE1	Hg-CVAFS-T-7030	41			Added 8/10/2017 by BC
1708118-05RE1	Hg-CVAFS-T-7030	42			Added 8/10/2017 by BC
F708302-DUP1	QC	43			
F708302-MS1	QC	44			
F708302-MSD1	QC	45			
7H10026-CCV6	QC	46	1703679		
7H10026-CCB6	QC	47			
F708302-MS2	QC	48			
F708302-MSD2	QC	49			
F708302-DUP2	QC	50			
F708302-MS3	QC	51			
F708302-MSD3	QC	52			
7H10026-CCV7	QC	53	1703679		
7H10026-CCB7	QC	54			


8/10/17
 Samples Loaded By _____ Date


8/10/17
 Data Processed By _____ Date

ANALYSIS SEQUENCE

7H10027



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H10027-IBL1	QC	1			
7H10027-IBL2	QC	2			
7H10027-IBL3	QC	3			
7H10027-CAL1	QC	4	1704505		
7H10027-CAL2	QC	5	1704506		
7H10027-CAL3	QC	6	1704507		
7H10027-CAL4	QC	7	1704508		
7H10027-CAL5	QC	8	1704509		
7H10027-ICV1	QC	9	1703679		
F707534-BLK1	QC	10			
F707534-BLK2	QC	11			
F707534-BS1	QC	12			
F707534-BSD1	QC	13			
1707619-11	Hg-CVAFS-S-7474	14			
1707619-14	Hg-CVAFS-S-7474	15			
1707619-15	Hg-CVAFS-S-7474	16			
1707619-16	Hg-CVAFS-S-7474	17			
1707619-17	Hg-CVAFS-S-7474	18			
1707619-18	Hg-CVAFS-S-7474	19			
7H10027-CCV1	QC	20	1703679		
7H10027-CCB1	QC	21			
1707619-19	Hg-CVAFS-S-7474	22			
1707619-20	Hg-CVAFS-S-7474	23			
1707619-21	Hg-CVAFS-S-7474	24			
1707619-22	Hg-CVAFS-S-7474	25			
1707619-23	Hg-CVAFS-S-7474	26			
1707619-24	Hg-CVAFS-S-7474	27			
1707619-25	Hg-CVAFS-S-7474	28			
1707619-26	Hg-CVAFS-S-7474	29			
1707619-27	Hg-CVAFS-S-7474	30			
1707619-28	Hg-CVAFS-S-7474	31			
7H10027-CCV2	QC	32	1703679		
7H10027-CCB2	QC	33			
1707619-29	Hg-CVAFS-S-7474	34			
1707619-30	Hg-CVAFS-S-7474	35			

ANALYSIS SEQUENCE

7H10027



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707619-31	Hg-CVAFS-S-7474	36			
1707620-02	Hg-CVAFS-S-7474	37			
1707619-18RE1	Hg-CVAFS-S-7474	38			Added 8/10/2017 by BC
1707619-27RE1	Hg-CVAFS-S-7474	39			Added 8/10/2017 by BC
1707619-28RE1	Hg-CVAFS-S-7474	40			Added 8/10/2017 by BC
1707619-30RE1	Hg-CVAFS-S-7474	41			Added 8/10/2017 by BC
1707619-31RE1	Hg-CVAFS-S-7474	42			Added 8/10/2017 by BC
1707620-02RE1	Hg-CVAFS-S-7474	43			Added 8/10/2017 by BC
7H10027-CCV3	QC	44	1703679		
7H10027-CCB3	QC	45			
F707534-MS1	QC	46			
F707534-MSD1	QC	47			
F707534-MS2	QC	48			
F707534-MSD2	QC	49			
7H10027-CCV4	QC	50	1703679		
7H10027-CCB4	QC	51			

Becis 8/10/17
 Samples Loaded By _____ Date

Becis 8/10/17
 Data Processed By _____ Date

Failing Data Report - 7H10026

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F708302-DUP1	Hg-CVAFS-T-7030	295.0	3.46	320.0	320.0		ng/g				8.13	24.00	FAIL-OVER	PASS-DUP	E

Beating 8/10/17
 Analyst Reviewed By Date

Don M. Steem 8/11/17
 Peer Reviewed By Date

PREPARATION BENCH SHEET

F708302

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708302-BLK1	Blank	0.25	20					
F708302-BLK2	Blank	0.25	20					
F708302-BLK3	Blank	0.25	20					
F708302-BLK4	Filter Blank	0.274	20					
F708302-BS1	LCS	0.2748	20	1704421	20			
F708302-BS2	LCS	0.1343	20	1703305	134.3			
F708302-BSD1	LCS Dup	0.285	20	1704421	20			
F708302-DUP1	Duplicate [1708120-01]	0.2888	20					
F708302-DUP2	Duplicate [1708120-01]	0.2888	20					
F708302-MS1	Matrix Spike [1708120-01]	0.2867	20	1701763	100			
F708302-MS2	Matrix Spike [1708120-02]	0.2922	20	1701763	100			
F708302-MS3	Matrix Spike [1708120-01]	0.2867	20	1701763	100			
F708302-MSD1	Matrix Spike Dup [1708120-01]	0.2555	20	1701763	100			
F708302-MSD2	Matrix Spike Dup [1708120-02]	0.2752	20	1701763	100			
F708302-MSD3	Matrix Spike Dup [1708120-01]	0.2555	20	1701763	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/ml Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703305	DORM-4	29-May-20 00:00	1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703702	THg Dilute 1% BrCl	
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704524	70/30 Digestion Acid	22-Jan-18 00:00
			1704691	3% SnCl2 THg reductant	
			1704740	5% BrCl	18-Dec-17 00:00

PREPARATION BENCH SHEET

F708302

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708084-01	OL-2638-01	0.2915	20	-	-	-	Preservation Blank Created Scan all dat	
1708118-01	OB-01_17HC001_072517_POL_01_WB	0.2792	20	QC	-	-	MS/MSD	From F708299 by CF on 04-Aug-17
1708118-01RE1	OB-01_17HC001_072517_POL_01_WB	0.2792	20	QC	-	-	MS/MSD Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708118-02	OB-01_17HC001_072517_POL_02_WB	0.2635	20	-	-	-		From F708299 by CF on 04-Aug-17
1708118-02RE1	OB-01_17HC001_072517_POL_02_WB	0.2635	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708118-03	OB-01_17HC001_072517_POL_03_WB	0.2961	20	-	-	-		From F708299 by CF on 04-Aug-17
1708118-03RE1	OB-01_17HC001_072517_POL_03_WB	0.2961	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708118-04	OB-01_17HC001_072517_POL_04_WB	0.25	20	-	-	-		From F708299 by CF on 04-Aug-17
1708118-04RE1	OB-01_17HC001_072517_POL_04_WB	0.25	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708118-05	OB-01_17HC001_072517_POL_05_WB	0.2901	20	-	-	-		From F708299 by CF on 04-Aug-17
1708118-05RE1	OB-01_17HC001_072517_POL_05_WB	0.2901	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708120-01	OV-04_17ET628_072817_EEL_02_WB	0.2634	20	QC	-	-	MS/MSD	From F708299 by CF on 04-Aug-17
1708120-02	OV-04_17ET628_072817_EEL_03_WB	0.2869	20	-	-	-		From F708299 by CF on 04-Aug-17
1708120-03	OV-04_17ET628_072817_EEL_04_WB	0.287	20	-	-	-		From F708299 by CF on 04-Aug-17
1708120-04	OV-04_17ET628_072817_EEL_05_WB	0.2645	20	-	-	-		From F708299 by CF on 04-Aug-17
1708120-05	OV-04_17ET628_072817_EEL_06_WB	0.245	20	-	-	-		From F708299 by CF on 04-Aug-17

PREPARATION BENCH SHEET

F708302

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

From F708299 on 04-Aug-17 by CF

Due Date: 8/30/2017

PREPARATION BENCH SHEET

F707534

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/9/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707534-BLK1	Blank	0.5	200					
F707534-BLK2	Blank	0.5	200					
F707534-BS1	Blank Spike	0.5	200	1701763	40			
F707534-BSD1	Blank Spike	0.5	200	1701763	40			
F707534-MS1	Matrix Spike [1707619-11]	0.5407	200	1703591	50			
F707534-MS2	Matrix Spike [1707619-21]	0.5709	200	1703591	50			
F707534-MSD1	Matrix Spike Dup [1707619-11]	0.5509	200	1703591	50			
F707534-MSD2	Matrix Spike Dup [1707619-21]	0.5633	200	1703591	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703591	THg 10,000ng/mL Primary Spiking Standard	14-Dec-17 00:00	1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1703831	Omnitrace Hydrochloric Acid	26-Jun-20 00:00
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1704691	3% SnCl2 THg reductant	22-Jan-18 00:00
			1704812	7474 Potassium Bromate/Bromide Reagent	15-Aug-17 00:00

PREPARATION BENCH SHEET

F707534

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/9/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707619-11	W-21-UM-Central-C_071817_SED_01-03	0.5873	200	QC	-	-	MS/MSD	
1707619-14	W-65-High_071817_SED_01-03	0.5474	200	-	-	-		
1707619-15	W-65-Low_071817_SED_01-03	0.5591	200	-	-	-		
1707619-16	W-65-Mid_071817_SED_01-03	0.5839	200	-	-	-		
1707619-17	W-21-UM-Central-C_071917_SED_03-05	0.5358	200	-	-	-		
1707619-18	W-21-UM-Central-C_071917_SED_05-10	0.5429	200	-	-	-		
1707619-18RE1	W-21-UM-Central-C_071917_SED_05-10	0.5429	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707619-19	W-17-Low_071917_SED_03-05	0.5837	200	-	-	-		
1707619-20	W-17-Low_071917_SED_05-10	0.5291	200	-	-	-		
1707619-21	W-17-Mid_071917_SED_03-05	0.5937	200	QC	-	-	MS/MSD	
1707619-22	W-17-Mid_071917_SED_05-10	0.5602	200	-	-	-		
1707619-23	W-63-High_071917_SED_03-05	0.584	200	-	-	-		
1707619-24	W-63-High_071917_SED_05-10	0.5528	200	-	-	-		
1707619-25	W-63-Mid_071917_SED_03-05	0.5614	200	-	-	-		
1707619-26	W-63-Mid_071917_SED_05-10	0.5642	200	-	-	-		
1707619-27	W-65-High_071917_SED_03-05	0.5572	200	-	-	-		
1707619-27RE1	W-65-High_071917_SED_03-05	0.5572	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707619-28	W-65-High_071917_SED_05-10	0.5524	200	-	-	-		
1707619-28RE1	W-65-High_071917_SED_05-10	0.5524	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC

PREPARATION BENCH SHEET

F707534

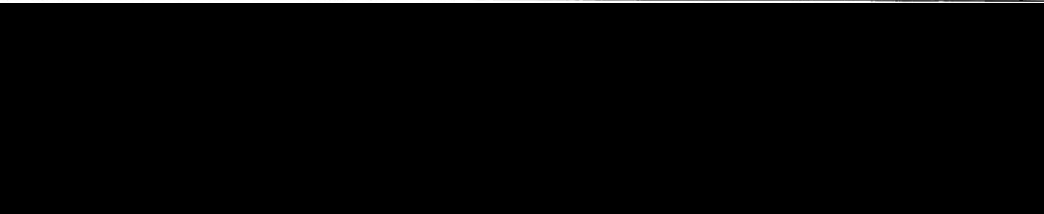
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/9/2017

1707619-29	W-65-Low_071917_SED_03-05	0.553	200	-	-	-		
1707619-30	W-65-Low_071917_SED_05-10	0.5423	200	-	-	-		
1707619-30RE1	W-65-Low_071917_SED_05-10	0.5423	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707619-31	W-65-Mid_071917_SED_03-05	0.5559	200	-	-	-		
1707619-31RE1	W-65-Mid_071917_SED_03-05	0.5559	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707620-02	W-MM-03_071717_SED_00-01	0.56	200	-	-	-		
1707620-02RE1	W-MM-03_071717_SED_00-01	0.56	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC



PREPARATION BENCH SHEET

~~176~~ PX 8/10/17
2600-3

F707534

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/9/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707534-BLK1	Blank	0.5	200					10X
F707534-BLK2	Blank	0.5	200					10X
F707534-BS1	Blank Spike	0.5	200	1701763	40			100X
F707534-BSD1	Blank Spike	0.5	200	1701763	40			100X
F707534-MS1	Matrix Spike [1707619-11]	0.5407	200	1703591	50			400X
F707534-MS2	Matrix Spike [1707619-21]	0.5709	200	1703591	50			400X
F707534-MSD1	Matrix Spike Dup [1707619-11]	0.5509	200	1703591	50			400X
F707534-MSD2	Matrix Spike Dup [1707619-21]	0.5633	200	1703591	50			400X

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703831	Omnitrace Hydrochloric Acid	26-Jun-20 00:00
1703591	THg 10,000ng/mL Primary Spiking Standard	14-Dec-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1704812	7474 Potassium Bromate/Bromide Reagent	15-Aug-17 00:00

1704691
1703701
1703702
1703182

PC 8/10/17
2600-3

PREPARATION BENCH SHEET

F707534

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/9/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707619-11	W-21-UM-Central-C_071817_SED_01-03	0.5873	200	QC	-	-	MS/MSD 100X	
1707619-14	W-65-High_071817_SED_01-03	0.5474	200	-	-	-	100X	
1707619-15	W-65-Low_071817_SED_01-03	0.5591	200	-	-	-	100X	
1707619-16	W-65-Mid_071817_SED_01-03	0.5839	200	-	-	-	100X	
1707619-17	W-21-UM-Central-C_071917_SED_03-05	0.5358	200	-	-	-	100X	
1707619-18	W-21-UM-Central-C_071917_SED_05-10	0.5429	200	-	-	-	100X → 10X	
1707619-19	W-17-Low_071917_SED_03-05	0.5837	200	-	-	-	100X	
1707619-20	W-17-Low_071917_SED_05-10	0.5291	200	-	-	-	100X	
1707619-21	W-17-Mid_071917_SED_03-05	0.5937	200	QC	-	-	MS/MSD 100X	
1707619-22	W-17-Mid_071917_SED_05-10	0.5602	200	-	-	-	100X	
1707619-23	W-63-High_071917_SED_03-05	0.584	200	-	-	-	100X	
1707619-24	W-63-High_071917_SED_05-10	0.5528	200	-	-	-	100X	
1707619-25	W-63-Mid_071917_SED_03-05	0.5614	200	-	-	-	100X	
1707619-26	W-63-Mid_071917_SED_05-10	0.5642	200	-	-	-	100y	
1707619-27	W-65-High_071917_SED_03-05	0.5572	200	-	-	-	100X → 10X	
1707619-28	W-65-High_071917_SED_05-10	0.5524	200	-	-	-	100X → 10X	
1707619-29	W-65-Low_071917_SED_03-05	0.553	200	-	-	-	100X	
1707619-30	W-65-Low_071917_SED_05-10	0.5423	200	-	-	-	100X → 10X	
1707619-31	W-65-Mid_071917_SED_03-05	0.5559	200	-	-	-	100X → 10X	

Due Date: 8/21/2017

PREPARATION BENCH SHEET

BC 8/10/17
2600-3

F707534

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/9/2017

1707620-02	W-MM-03_071717_SED_00-01	0.56	200	-	-	-	100X → 10X	
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Technician: Duyen Batch#: F707534 Date: 8/9/17

- EFAS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA 7474
 Balance#: 19 Calibrated? Yes No Therm.#: N/A Vial Type: Glass Teflon
 Calibrated? Yes No
 *Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 *Time in can't begin before target temperature is reached

Final vol.: 25 mL (LIMS ID: Roll 20) Spike vol.: 40 µL (LIMS ID: 1701763)
 Spike Witness: BC 8/9/17 (initial and date)

HCl LIMS ID: 1703831 Pipette SN#: MU11619 Calibration Date: 8-9-17
 HNO₃ LIMS ID: 1704484 Pipette SN#: NW07693 Calibration Date: 8/9/17
 70/30 LIMS ID: N/A Dispenser #: 09N45551 Calibrated? Yes No
 Other Acid LIMS ID: 1704812 Dispenser #: 08Y2293 Yes
 Glass Vial # J264712-3025 Boiling Chip lot # 1704424 *Hotblock Position: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial # <u>8/9/17</u>	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> N/A
1	F707534 Bk1	0.5017	27 8	1707619-27A	0.5572	
2	F707534 Bk2	0.5068	27 9	1707619-28	0.5524	
3	F707534 B51	0.5008	25 10	1707619-29	0.5530	
4	F707534 B501	0.5832	25 11	1707619-20	0.5423	Comments
5	1707619-11D	0.5873	27 12	1707619-31	0.5559	
6	F707534-M51	0.5407	28 13	1707620-02	0.5600	F707534 source
7	F707534-M501	0.5509	29			M51 M501
8	1707619-14D	0.5474	30			1707619-11
9	1707619-15A	0.5591	31			
10	1707619-16A	0.5839	32			F707534
11	1707619-17A	0.5358	33			M52 M502
12	1707619-18A	0.5429	34			1707619-27
13	1707619-19A	0.5837	35			ALL Spike
14	1707619-20A	0.5291	36			M51 M101
15	1707619-21A	0.5937	37			= 50 ul
16	F707534-M52	0.5709	38			10,000ug/bul
17	F707534-M502	0.5633	39			1703591
18	1707619-22A	0.5602	40			8/9/17
19	1707619-23A	0.5840	41			
20	1707619-24A	0.5528	42			
21	1707619-25A	0.5614	43			
22	1707619-26A	0.5642	44			

PREPARATION BENCH SHEET

8/10/17 BL
2600-3

F708302

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708302-BLK1	Blank	0.25	20					20X
F708302-BLK2	Blank	0.25	20					20X
F708302-BLK3	Blank	0.25	20					20X
F708302-BLK4	Filter Blank	0.274	20					20X
F708302-BS1	LCS	0.2748	20	1704421	20			20X
F708302-BS2	LCS	0.1343	20					400X
F708302-BSD1	LCS Dup	0.285	20	1704421	20			20X
F708302-DUP1	Duplicate [1708120-01]	0.2888	20					100X
F708302-MS1	Matrix Spike [1708120-01]	0.2867	20	1701763	100			400X
F708302-MS2	Matrix Spike [1708120-02]	0.2922	20	1701763	100			400X
F708302-MSD1	Matrix Spike Dup [1708120-01]	0.2555	20	1701763	100			400X
F708302-MSD2	Matrix Spike Dup [1708120-02]	0.2752	20	1701763	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1704524	70/30 Digestion Acid	22-Jan-18 00:00
			1704740	5% BrCl	18-Dec-17 00:00

DUP 2 rerun of DUP 1 400X

MS 3, MSD3 rerun MS1/MSD1 400X

1704641

~~170470~~

1703701

1703702

1703182

PREPARATION BENCH SHEET

Bx 8/10/17
2600-3

F708302

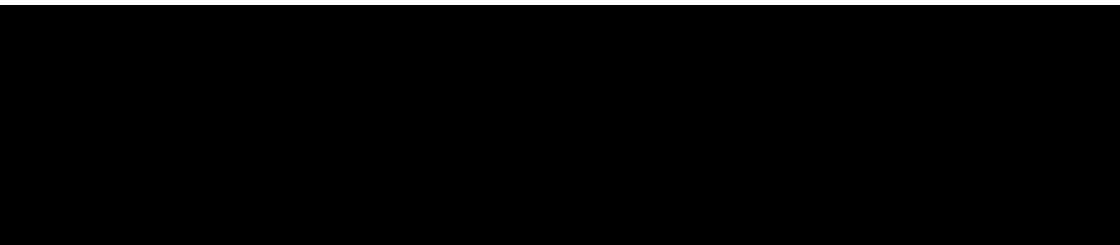
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708084-01	OL-2638-01	0.2915	20	-	-	-	Preservation Blank Created Scan all dat	100x
1708118-01	OB-01_17HC001_072517_POL_01_WB	0.2792	20	-	-	-		From F708299 by CF on 04-Aug-17 400x → 100x
1708118-02	OB-01_17HC001_072517_POL_02_WB	0.2635	20	-	-	-		From F708299 by CF on 04-Aug-17 400x → 100x
1708118-03	OB-01_17HC001_072517_POL_03_WB	0.2961	20	-	-	-		From F708299 by CF on 04-Aug-17 400x → 100x
1708118-04	OB-01_17HC001_072517_POL_04_WB	0.25	20	-	-	-		From F708299 by CF on 04-Aug-17 400x → 100x
1708118-05	OB-01_17HC001_072517_POL_05_WB	0.2901	20	-	-	-		From F708299 by CF on 04-Aug-17 400x → 100x
1708120-01	OV-04_17ET628_072817_EEL_02_WB	0.2634	20	QC	-	-	MS/MSD	From F708299 by CF on 04-Aug-17 400x
1708120-02	OV-04_17ET628_072817_EEL_03_WB	0.2869	20	-	-	-		From F708299 by CF on 04-Aug-17 400x
1708120-03	OV-04_17ET628_072817_EEL_04_WB	0.287	20	-	-	-		From F708299 by CF on 04-Aug-17 400x
1708120-04	OV-04_17ET628_072817_EEL_05_WB	0.2645	20	-	-	-		From F708299 by CF on 04-Aug-17 400x
1708120-05	OV-04_17ET628_072817_EEL_06_WB	0.245	20	-	-	-		From F708299 by CF on 04-Aug-17 400x



Technician: CWF Batch#: F708302 Date: 8/4/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 11:00 Actual Temp. (raw): 76.0 °C w/ CF: 76.0 °C

Time out: 13:00 Actual Temp. (raw): 80.0 °C w/ CF: 80.0 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1704740) Spike vol.: 100 µL (LIMS ID: 1701763)

Spike Witness: on 8/7/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 8/2/17

HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1704524 Dispenser #: 02227494 Calibrated? Yes No

Other Acid LIMS ID: _____ Dispenser #: 15406623 Calibrated? Yes No

Glass Vial # 0067424 - 0006807 Boiling Chip lot # 1704424 *Hotblock Position: K4

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F708302 - BLK1	0.2849	23	1708120 - 05	0.2450	B52 = PORM-4
2	F708302 - BLK2	0.2850	24			LIMS = 1707305
3	F708302 - BLK3	0.2550	25			
4	F708302 - BLK4	0.2740	26			Comments
5	F708302 - B51	0.2748	27			F708302 - DUPI,
6	F708302 - B5D1	0.2850	28			MS1, MSD1
7	F708302 - B52	0.1343	29			source = 1708120 - 01
8	1708084 - 01	0.2915 ^{CWF} 29.15 ^{WF}	30			
9	1708118 - 01	20.2792 ^{CWF} 20.2792 ^{WF}	31			F708302 - MS2,
10	1708118 - 02	0.2635	32			MSD2 source =
11	1708118 - 03	0.2961	33			1708120 - 02
12	1708118 - 04	0.2500	34	<u>CWF</u> <u>8/4/17</u>		BLK4 is Filter
13	1708118 - 05	0.2901	35			blank.
14	1708120 - 01	0.2634	36			B5/B5D1 spiked
15	F708302 - DUPI	0.2888	37			w/ 20 mL of 100 µg/mL
16	F708302 - MS1	0.2867	38			LIMS = 1704421
17	F708302 - MSD1	0.2555	39			
18	1708120 - 02	0.2869	40			<u>CWF</u> <u>8/7/17</u>
19	F708302 - MS2	0.2922	41			
20	F708302 - MSD2	0.2792	42			
21	1708120 - 03	0.2870	43			
22	1708120 - 04	0.2645	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7H10026, 7H10027
Reviewer: 0	Dataset ID(s): THg26003-170810-1
Date: 8/10/2017	WO (s) #: Various
Batch #(s): F707535, F708302	0

Analyst Initials BC Reviewer Initials DM

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF ($\leq 15\%$) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: DUP1 was off curve
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
 (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
 (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7H10026, 7H10027
Reviewer:	0	Dataset ID(s):	THg26003-170810-1
Date:	8/10/2017	WO (s) #:	Various
Batch #(s):	F707535, F708302		0

Analyst Initials BC Reviewer Initials DM

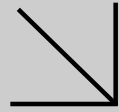
- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs | | | |
| 36. Date of analyst IDOC/CDOC: _____ 1/27/2017 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 5/9/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 5/9/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.



Supplemental Report 2

The original report has been revised to include the Level IV deliverables package.



WORK ORDER NUMBER: 17-08-0508

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Eurofins Frontier Global Sciences, Inc.

Client Project Name: 1708120

Attention: Amy Goodall
11720 North Creek Parkway North
Suite 4
Bothell, WA 98011-8244

Approved for release on 09/06/2017 by:
Carla Hollowell
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



Contents

Client Project Name: 1708120
Work Order Number: 17-08-0508

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	4.1 % Lipids via MeCl2 Ext. (NOAA 1993a) (Tissue).	7
5	Quality Control Sample Data.	8
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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/05/17. They were assigned to Work Order 17-08-0508.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Client Project Name: 1708120
Work Order Number: 17-08-0508

CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received 5 Tissue samples on August 5, 2017. A total of 5 containers were received in good condition and at a temperature of 2.4°C, which is within the recommended temperature criteria of >0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
OV-04_17ET628_072817_EEL_02_WB	17-08-0508-1	07/28/17 14:22	08/05/17 09:50
OV-04_17ET628_072817_EEL_03_WB	17-08-0508-2	07/28/17 14:22	08/05/17 09:50
OV-04_17ET628_072817_EEL_04_WB	17-08-0508-3	07/28/17 14:22	08/05/17 09:50
OV-04_17ET628_072817_EEL_05_WB	17-08-0508-4	07/28/17 14:22	08/05/17 09:50
OV-04_17ET628_072817_EEL_06_WB	17-08-0508-5	07/28/17 14:22	08/05/17 09:50

DATA SUMMARY:

Pursuant to the chain of custody document, the samples were analyzed using the following methodologies:

- % Lipids via MeCl₂ Ext. (NOAA 1993a)

The samples were analyzed within the suggested EPA holding time for the requested methods, unless otherwise noted below.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Manual integrations made to the data will be noted in the following narrative. The initial and amended chromatograms have been included in the data package.

All sample and instrument QC were within acceptance criteria, unless otherwise noted below.

% Lipids via MeCl₂ Ext. (NOAA 1993a):

Samples -1 through -5 were analyzed for % Lipids via MeCl₂ Ext. (NOAA 1993a). The samples were prepared and analyzed on 08/17/17 in batch #s 170817B03 / 170817D03.

Client Project Name: 1708120
Work Order Number: 17-08-0508

Sample and QC:

The method blank was non-detect.

A non-client sample was used as the sample duplicate for quality control; refer to the QC duplicate summary form for further information.



Calscience

Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	17-08-0508
11720 North Creek Parkway North, Suite 4	Project Name:	1708120
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	08/05/17 09:50
	Number of Containers:	5

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
OV-04_17ET628_072817_EEL_02_WB	17-08-0508-1	07/28/17 14:22	1	Tissue
OV-04_17ET628_072817_EEL_03_WB	17-08-0508-2	07/28/17 14:22	1	Tissue
OV-04_17ET628_072817_EEL_04_WB	17-08-0508-3	07/28/17 14:22	1	Tissue
OV-04_17ET628_072817_EEL_05_WB	17-08-0508-4	07/28/17 14:22	1	Tissue
OV-04_17ET628_072817_EEL_06_WB	17-08-0508-5	07/28/17 14:22	1	Tissue

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Analytical Report

Eurofins Frontier Global Sciences, Inc.
11720 North Creek Parkway North, Suite 4
Bothell, WA 98011-8244

Date Received: 08/05/17
Work Order: 17-08-0508
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)
Units: %

Project: 1708120

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OV-04_17ET628_072817_EEL_02_WB	17-08-0508-1-AA	07/28/17 14:22	Tissue	N/A	08/17/17	08/17/17 00:00	170817B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		10	0.10		1.00		
OV-04_17ET628_072817_EEL_03_WB	17-08-0508-2-AA	07/28/17 14:22	Tissue	N/A	08/17/17	08/17/17 00:00	170817B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.0	0.10		1.00		
OV-04_17ET628_072817_EEL_04_WB	17-08-0508-3-AA	07/28/17 14:22	Tissue	N/A	08/17/17	08/17/17 00:00	170817B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		17	0.10		1.00		
OV-04_17ET628_072817_EEL_05_WB	17-08-0508-4-AA	07/28/17 14:22	Tissue	N/A	08/17/17	08/17/17 00:00	170817B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.6	0.10		1.00		
OV-04_17ET628_072817_EEL_06_WB	17-08-0508-5-AA	07/28/17 14:22	Tissue	N/A	08/17/17	08/17/17 00:00	170817B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		9.3	0.10		1.00		
Method Blank	099-14-104-189	N/A	Tissue	N/A	08/17/17	08/17/17 00:00	170817B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.
11720 North Creek Parkway North, Suite 4
Bothell, WA 98011-8244

Date Received: 08/05/17
Work Order: 17-08-0508
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)

Project: 1708120

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
17-08-0131-1	Sample	Tissue	N/A	08/17/17 00:00	08/17/17 00:00	170817D03
17-08-0131-1	Sample Duplicate	Tissue	N/A	08/17/17 00:00	08/17/17 00:00	170817D03

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	0.1160	0.1080	7	0-25	

RPD: Relative Percent Difference. CL: Control Limits

Glossary of Terms and Qualifiers

Work Order: 17-08-0508

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
1708120

17-08-0508

SENDING LABORATORY:

Eurofins Frontier Global Sciences, Inc.
11720 North Creek Parkway North, Suite 400
Bothell, WA 98011
Phone: (425) 686-1996
Fax: (425) 686-3096
Project Manager: Amy Goodall

RECEIVING LABORATORY:

Eurofins Calscience, Inc
7440 Lincoln Way
Garden Grove, CA 92841
Phone :7148955494
Fax: x

Analysis **Comments**

Sample ID: OV-04_17ET628_072817_EEL_02_WB

EFGS Lab ID: 1708120-01 Matrix: Tissue

Sampled: 28-Jul-17 14:22 Eastern MS/MSD Due: 31-Aug-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for ool samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else. Homogenization work instructions can be found in D4 or EFGS P-SP-WH11642 (AG)~~

Containers Supplied:

34_Plastic Bag (C)

Sample ID: OV-04_17ET628_072817_EEL_03_WB

EFGS Lab ID: 1708120-02 Matrix: Tissue

Sampled: 28-Jul-17 14:22 Eastern Due: 31-Aug-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for ool samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else. Homogenization work instructions can be found in D4 or EFGS P-SP-WH11642 (AG)~~

Containers Supplied:

34_Plastic Bag (C)

Lab Received: 8/5/17 0950

[Signature] EG

[Signature] 8/4/17
Released By Date

Received By Date

[Signature] 8/4/17
Released By Date

Received By Date

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
1708120

0508

Analysis **Comments**

Sample ID: OV-04_17ET628_072817_EEL_04_WB

3 EFGS Lab ID: 1708120-03 Matrix: Tissue

Sampled: 28-Jul-17 14:22 Eastern Due: 31-Aug-17 19:00

Misc. Subcontract 1 Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.
Homogenization work instructions can be found in D4 as EFSP-P-SP-WH11642 (AG)~~

Containers Supplied:

34_Plastic Bag (C)

4
2
9/5/17
Sample ID: OV-04_17ET628_072817_EEL_05_WB

EFGS Lab ID: 1708120-04 Matrix: Tissue

Sampled: 28-Jul-17 14:22 Eastern Due: 31-Aug-17 19:00

Misc. Subcontract 1 Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.
Homogenization work instructions can be found in D4 as EFSP-P-SP-WH11642 (AG)~~

Containers Supplied:

34_Plastic Bag (C)

5 Sample ID: OV-04_17ET628_072817_EEL_06_WB

EFGS Lab ID: 1708120-05 Matrix: Tissue

Sampled: 28-Jul-17 14:22 Eastern Due: 31-Aug-17 19:00

Misc. Subcontract 1 Lipids Analysis - NOAA1993a - Level IV, EZEDD and Maine EDD required

~~For homogenization add X Large code for eel samples, Large code for worms and large fish, use Small for blood samples, and Medium for everything else.
Homogenization work instructions can be found in D4 as EFSP-P-SP-WH11642 (AG)~~

Containers Supplied:

34_Plastic Bag (C)

Lab Received: 8/5/17 0950
J - EA

Released By *[Signature]* Date 8/4/17 Received By Date

Released By *[Signature]* Date 8/4/17 Received By Date

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0508

1110

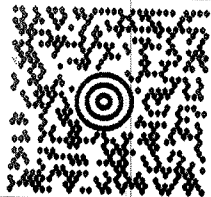
FRONT DESK
(25) 686 - 1996
FRONTIER GLOBAL SCIENCES
11720 N CREEK PKWY N
BOTHELL WA 98011 - 8244

9 LBS

1 OF 1

DWT: 13,9,9

SHIP TO:
SAMPLE RECEIVING
(714) 895 - 5494
EUROFINS CALSCIENCE, INC.
7440 LINCOLN WAY
GARDEN GROVE CA 92841



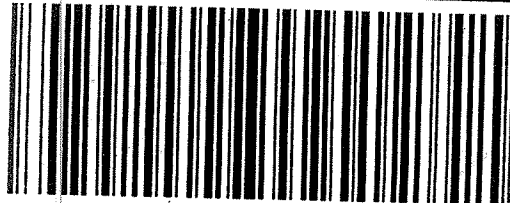
CA 927 9 - 09



UPS NEXT DAY AIR

TRACKING #: 1Z 86W 050 44 4946 1340

1 S



BILLING: P/P

Dept No.: OVERHEAD
OFF 2: Subcontract

WS 20.0.20 Zebra ZP 450 90.0A 07/2017



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SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Eurofins Froniter Global

DATE: 08/05/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF): 2.2 °C (w/ CF): 2.4 °C; Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____)

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: Air Filter

Checked by: SR

CUSTODY SEAL:

Cooler Present and Intact Present but Not Intact Not Present N/A

Checked by: SR

Sample(s) Present and Intact Present but Not Intact Not Present N/A

Checked by: SR

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples Yes No N/A

COC document(s) received complete Yes No N/A

Sampling date Sampling time Matrix Number of containers

No analysis requested Not relinquished No relinquished date No relinquished time

Sampler's name indicated on COC Yes No N/A

Sample container label(s) consistent with COC Yes No N/A

Sample container(s) intact and in good condition Yes No N/A

Proper containers for analyses requested Yes No N/A

Sufficient volume/mass for analyses requested Yes No N/A

Samples received within holding time Yes No N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH Residual Chlorine Dissolved Sulfide Dissolved Oxygen Yes No N/A

Proper preservation chemical(s) noted on COC and/or sample container Yes No N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics Total Metals Dissolved Metals

Container(s) for certain analysis free of headspace Yes No N/A

Volatile Organics Dissolved Gases (RSK-175) Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500) Ferrous Iron (SM 3500) Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation Yes No N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: VOA VOA_h VOA_{na2} 100PJ 100PJ_{na2} 125AGB 125AGB_h 125AGB_p 125PB

125PB_{z_{na}} 250AGB 250CGB 250CGB_s 250PB 250PB_n 500AGB 500AGJ 500AGJ_s

500PB 1AGB 1AGB_{na2} 1AGB_s 1PB 1PB_{na} _____ _____ _____

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® (____) TerraCores® (____) _____

Air: Tedlar™ Canister Sorbent Tube PUF _____ Other Matrix (Tissue): 8 _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄,

Labeled/Checked by: SR

s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, z_{na} = Zn (CH₃CO₂)₂ + NaOH

Reviewed by: SR
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% Lipids via MeCl₂ Ext. (NOAA 1993a)

RAW DATA

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-08-0508
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-08-17 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-08-17 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

1 CLIENT SAMPLE NUMBER: OV-04_17ET628_072817_EEL_02_WB

LCS/MB BATCH: 170817B03 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g
MS/MSD BATCH: 170817D03 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	10.3	1.00	10.3	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-08-0508
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-08-17 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-08-17 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

2 **CLIENT SAMPLE NUMBER: OV-04_17ET628_072817_EEL_03_WB**

LCS/MB BATCH: 170817B03 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g
MS/MSD BATCH: 170817D03 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	2.03	1.00	2.03	0.10	


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RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-08-0508
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-08-17 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-08-17 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

3 CLIENT SAMPLE NUMBER: OV-04_17ET628_072817_EEL_04_WB

LCS/MB BATCH: 170817B03 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g
MS/MSD BATCH: 170817D03 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	16.6	1.00	16.6	0.10	


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RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-08-0508
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-08-17 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-08-17 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

4 CLIENT SAMPLE NUMBER: OV-04_17ET628_072817_EEL_05_WB

LCS/MB BATCH: 170817B03 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g
MS/MSD BATCH: 170817D03 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.58	1.00	4.58	0.10	

RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 17-08-0508
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-08-17 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-08-17 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

5 CLIENT SAMPLE NUMBER: OV-04_17ET628_072817_EEL_06_WB

LCS/MB BATCH: 170817B03 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g
MS/MSD BATCH: 170817D03 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	9.28	1.00	9.28	0.10	

METHOD BLANK ASSOCIATION SUMMARY
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

MB SAMPLE ID: 099-14-104-189
MB BATCH ID: 170817B03
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-08-17 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-08-17 00:00
REVIEWED BY:
D/T REVIEWED:
MATRIX: Tissue

DATA FILE:

CLIENT WORK ORDER: 17-08-0508

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
1		OV-04_17ET628_072817_EEL_02_	2017-08-17 00:00	
	WB			
2		OV-04_17ET628_072817_EEL_03_	2017-08-17 00:00	
	WB			
3		OV-04_17ET628_072817_EEL_04_	2017-08-17 00:00	
	WB			
4		OV-04_17ET628_072817_EEL_05_	2017-08-17 00:00	
	WB			
5		OV-04_17ET628_072817_EEL_06_	2017-08-17 00:00	
	WB			


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RAW DATA SHEET
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104
INSTRUMENT: N/A
EXTRACTION: N/A
D/T EXTRACTED: 2017-08-17 00:00

ANALYZED BY: 684
D/T ANALYZED: 2017-08-17 00:00
REVIEWED BY:
D/T REVIEWED:

DATA FILE:

MB CLIENT SAMPLE NUMBER: Method Blank

LCS/MB BATCH: 170817B03 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g
MS/MSD BATCH: FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.00800	1.00	ND	0.10	

**DUPLICATE REPORT
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

DUP SAMPLE ID: 17-08-0131-1
DUP BATCH: 170817D03
INSTRUMENTS:
SAMPLE: N/A
DUP SAMPLE: N/A

EXTRACTION: N/A
D/T EXTRACTED:
SAMPLE: 2017-08-17 00:00
DUP SAMPLE: 2017-08-17 00:00

ANALYZED BY: 684
D/T ANALYZED:
SAMPLE: 2017-08-17 00:00
DUP SAMPLE: 2017-08-17 00:00
REVIEWED BY:
D/T REVIEWED:

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	0.1160	0.1080	7	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

Analysis Method (EPA Method): 608 8081 8082 8141 8310 TO-13 TO-4 Lipids
 8270 (Soil Soil SIM SUPER PAH SIM PAH SIM Pest SIM PCB cong. SIM FL)

Extraction Method (EPA Method): 3510 3520 3540 3541 3545 3550 3580

Analyst ID#: Measuring Sample- 680 Start Extraction- 680 Blow Down- 680 Clean Up-

Matrix: Soil Aqueous Oil Wipe Filter Tissue Air

Balance ID#: 70 Filter ID#: 507-65-06 ASE ID#: Soxtherm ID#: Orbit Shaker ID#: Sonicator ID#:

Ext. Start Date/Time: Ext. End Date/Time:

Sand or Wipe ID#: 507-64-18 Drying Agent: Na₂SO₄ Diatomaceous Earth
Drying Agent(s) ID#: 507-73-08 / 507-22-03

Surrogate Std ID# & Volume Added (mL):

Spike Std ID# & Volume Added (mL): Spike Added to: LCS LCSD MS MSD

Extraction Solvent: MeCl₂ 1:1 Hexane-Acetone 1:1 MeCl₂-Acetone 9:1 Hexane-Diethyl-ether Acetonitrile

Extraction Solvent ID#: 507-75-25 Exchange Solvent (Hexane Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up: 3620 Florisil 3630 SGC 3660 Sulfur 3665 Acid Other Cartridge ID#:

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #:	Sample Wt (g) V (mL)		Clean Up Performed	Comments
	Initial	Final		
170817203				
Cel ID#:				
MB	5.01	2	<input type="checkbox"/>	
LCS			<input type="checkbox"/>	
LCSD			<input type="checkbox"/>	
MS			<input type="checkbox"/>	
MSD			<input type="checkbox"/>	
17-08-0131-1 AA	5.00	2	<input type="checkbox"/>	
-2	5.04	2	<input type="checkbox"/>	
-3	5.06	2	<input type="checkbox"/>	
-4	5.10	2	<input type="checkbox"/>	
-5	5.04	2	<input type="checkbox"/>	
-6	5.00	2	<input type="checkbox"/>	
-7	5.10	2	<input type="checkbox"/>	
17-08-0132-1 AA	4.99	2	<input type="checkbox"/>	
-2	2.80	2	<input type="checkbox"/>	limited sample
-3	5.02	2	<input type="checkbox"/>	
-4	5.04	2	<input type="checkbox"/>	
-5	5.01	2	<input type="checkbox"/>	
-6	5.00	2	<input type="checkbox"/>	
-7	5.01	2	<input type="checkbox"/>	
17-08-0508-1 AA	5.04	2	<input type="checkbox"/>	
-2	5.09	2	<input type="checkbox"/>	
-3	5.00	2	<input type="checkbox"/>	
-4	5.06	2	<input type="checkbox"/>	
-5	5.02	2	<input type="checkbox"/>	
DUP 17-08-0131-1AA	5.00	2	<input type="checkbox"/>	

Peer Reviewed by: 684

Peer Reviewed Date: 8/17/17

Revision Date: 10/20/16

BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 08/17/17 Initials: 1134

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (If not passed, note removal or corrective action)
25	1	1.01	0.98 - 1.02	(Y) N	IO Lab
	100	99.94	98.00 - 102.00	(Y) N	
	500	499.72	498.00 - 502.00	(Y) N	
62	0.002	0.0020	0.00180 - 0.00220	(Y) N	IO Lab
	1	0.9995	0.99900 - 1.00100	(Y) N	
	100	99.9950	99.90000 - 100.10000	(Y) N	
26	1	1.00	0.98 - 1.02	(Y) N	IO Lab
	100	99.97	98.00 - 102.00	(Y) N	
55	1	0.99	0.98 - 1.02	(Y) N	IO Lab
	100	99.95	98.00 - 102.00	(Y) N	
	500	499.94	498.00 - 502.00	(Y) N	
11	1	1.00	0.98 - 1.02	(Y) N	IO Lab
	100	100.00	98.00 - 102.00	(Y) N	
66	0.002	0.0021	0.00180 - 0.00220	(Y) N	Metals
	1	0.9995	0.99900 - 1.00100	(Y) N	
	100	99.9990	99.90000 - 100.10000	(Y) N	
53	0.1	0.10	0.09 - 0.11	(Y) N	Extractions
	1	1.00	0.98 - 1.02	(Y) N	
	100	99.99	98.00 - 102.00	(Y) N	
	500	499.97	498 - 502	(Y) N	
70	1	1.01	0.98 - 1.02	(Y) N	Extractions
	100	99.80	98.00 - 102.00	(Y) N	
	500	499.16	498.00 - 502.00	(Y) N	
57	100	99.9	98.0-102.0	(Y) N	Extractions
	1000	1000.0	998.0-1002.0	(Y) N	
	2000	2000.1	1998.0-2002.0	(Y) N	
52	0.002	6.0019	0.0018 - 0.0022	(Y) N	Extractions
	1 ¹¹³⁴	99.9949	99.990 - 1.0010	(Y) N	
	100	99.9949	99.9000 - 100.1000	(Y) N	
71	0.002	0.0021	0.0018 - 0.0022	(Y) N	BOD Room
	1	0.9992	0.9990 - 1.0010	(Y) N	
	100	99.9949	99.9000 - 100.1000	(Y) N	
63	0.1	0.10	0.09 - 0.11	(Y) N	BOD Room
	100	99.99	98.00 - 102.00	(Y) N	
64	1	1.00	0.98 - 1.02	(Y) N	Metals Clean Room
	10	10.01	9.8 - 10.2	(Y) N	
	100	99.99	98.00 - 102.00	(Y) N	
72	0.002	0.0021	0.0018 - 0.0022	(Y) N	Oil & Grease Room
	1	0.9996	0.9990 - 1.0010	(Y) N	
	100	99.9979	99.9000 - 100.1000	(Y) N	
30	1	1.00	0.98 - 1.02	(Y) N	Oil & Grease Room
	100	100.02	98.00 - 102.00	(Y) N	

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709489

PO#

C012505850

November 14, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709489

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 14:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FBJR_17LT024_091417_LOB_01_TA	1709489-01	Tissue	14-Sep-17 09:47	19-Sep-17 09:35
FBJR_17LT024_091417_LOB_02_TA	1709489-02	Tissue	14-Sep-17 09:47	19-Sep-17 09:35
FBJR_17LT024_091417_LOB_03_TA	1709489-03	Tissue	14-Sep-17 09:47	19-Sep-17 09:35
FBJR_17LT024_091417_LOB_04_TA	1709489-04	Tissue	14-Sep-17 09:47	19-Sep-17 09:35
FBJR_17LT025_091417_LOB_05_TA	1709489-05	Tissue	14-Sep-17 10:00	19-Sep-17 09:35
FBJR_17LT025_091417_LOB_06_TA	1709489-06	Tissue	14-Sep-17 10:00	19-Sep-17 09:35
FBJR_17LT026_091417_LOB_07_TA	1709489-07	Tissue	14-Sep-17 10:10	19-Sep-17 09:35
FBJR_17LT026_091417_LOB_08_TA	1709489-08	Tissue	14-Sep-17 10:10	19-Sep-17 09:35
FBJR_17LT026_091417_LOB_09_TA	1709489-09	Tissue	14-Sep-17 10:10	19-Sep-17 09:35
FBJR_17LT026_091417_LOB_10_TA	1709489-10	Tissue	14-Sep-17 10:10	19-Sep-17 09:35
FBJR_17LT027_091417_LOB_11_TA	1709489-11	Tissue	14-Sep-17 10:17	19-Sep-17 09:35
FBJR_17LT027_091417_LOB_12_TA	1709489-12	Tissue	14-Sep-17 10:17	19-Sep-17 09:35
FBJR_17LT027_091417_LOB_13_TA	1709489-13	Tissue	14-Sep-17 10:17	19-Sep-17 09:35
FBJR_17LT027_091417_LOB_14_TA	1709489-14	Tissue	14-Sep-17 10:17	19-Sep-17 09:35
FBJR_17LT027_091417_LOB_15_TA	1709489-15	Tissue	14-Sep-17 10:17	19-Sep-17 09:35
FBJR_17LT027_091417_LOB_16_TA	1709489-16	Tissue	14-Sep-17 10:17	19-Sep-17 09:35
FBJR_17LT027_091417_LOB_17_TA	1709489-17	Tissue	14-Sep-17 10:17	19-Sep-17 09:35
FBJR_17LT028_091417_LOB_18_TA	1709489-18	Tissue	14-Sep-17 10:26	19-Sep-17 09:35
FBJR_17LT028_091417_LOB_19_TA	1709489-19	Tissue	14-Sep-17 10:26	19-Sep-17 09:35
FBJR_17LT028_091417_LOB_20_TA	1709489-20	Tissue	14-Sep-17 10:26	19-Sep-17 09:35

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
14-Nov-17 14:56

REVISED REPORT (11/14/17)

Report was revised as the narrative in the original report did not include a comment that the % lipids requested on the sample submittal form were cancelled by the client. This has been updated in this revised report.

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/19/2017 9:35:00 AM . The samples were received intact, on-ice within nine sealed coolers at -12.7, -24.7, -15.2, -16.8, -12.1, -20.0, -17.3, -16.4, and -30.2 degrees Celsius.

Client requested Lipids Analysis by NOAA1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

The samples were processed following the work instructions provided by the client; EFSR-P-SP-WI11646. All of the samples were defrosted and the tails were then removed from the lobster. The shell was removed, and the meat was weighed, de-veined, and then homogenized before sample prep.

Total solids analysis was performed in accordance with method SM2540B.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B.

The samples were prepped in batch F710237 for % moisture and batch F709417 for total solids. The tail mass was measured in batch F709420.

The samples were prepped in batch F709409 and analyzed in sequence 7I28009 for total Mercury.

Per client request samples 1709489-01 and 1709489-11 were used as the source QC in these batches F710237, F709417, and F709409.

ANALYTICAL AND QUALITY CONTROL ISSUES

Eurofins Frontier Global Sciences, Inc.



The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
14-Nov-17 14:56

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

Client: AMEC Foster Wheeler

Date & Time Received: 9/19/17 9:35

Date Labeled: 9/20/17 Labeled By: LM

Project: _____

Received By: LM

Label Verified By: JCL

of Coolers Received: 9 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>Y</u>	

ca 9/19/17

TID: <u>170404186</u>	CF: <u>10.1 °C</u>	Date/time: <u>9/19/17 9:40</u>	By: <u>LM</u>
Cooler 1: <u>-12.80 °C</u> w/ CF: <u>-12.70 °C</u>	Cooler 4: <u>-16.86 °C</u> w/ CF: <u>-16.76 °C</u>		
Cooler 2: <u>-24.80 °C</u> w/ CF: <u>-24.70 °C</u>	Cooler 5: <u>-12.20 °C</u> w/ CF: <u>-12.10 °C</u>		
Cooler 3: <u>-15.31 °C</u> w/ CF: <u>-15.21 °C</u>	Cooler 6: <u>-20.10 °C</u> w/ CF: <u>-20.00 °C</u>		

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>N/A</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>N</u>	

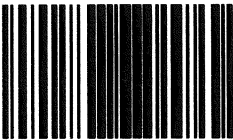
cooler 7: -17.43 w/CF: -17.33 8: -16.49 w/CF: -16.39 9: -30.26 /CF: -30.16

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>NA</u>	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4802 2: 7877 6903 7261
 3: 7877 6903 7272 4: 7877 6903 7283
 5: 7877 6903 7294 6: 7877 6903 7309
 7: 7877 6903 7310 8: 7877 6903 7320
 9: 7877 6903 7331

1709489





AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 14:56

FBJR_17LT024_091417_LOB_01_TA
1709489-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	202	2.18	19.5	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	38.9	0.419	3.75	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.8	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.2	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	79.5	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	



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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
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FBJR_17LT024_091417_LOB_02_TA
1709489-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	154	2.06	18.4	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	28.8	0.385	3.44	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.3	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.7	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	77.5	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	

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FBJR_17LT024_091417_LOB_03_TA
1709489-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	201	1.97	17.6	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	40.6	0.398	3.55	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	79.8	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	20.2	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	87.5	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	

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FBJR_17LT024_091417_LOB_04_TA
1709489-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	240	2.13	19.0	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	45.4	0.402	3.59	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.1	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.9	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	87.7	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	



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Reported:
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FBJR_17LT025_091417_LOB_05_TA
1709489-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	210	2.43	21.7	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	37.5	0.435	3.88	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.1	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.9	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	78.4	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	



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Reported:
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FBJR_17LT025_091417_LOB_06_TA
1709489-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	161	1.91	17.0	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	35.2	0.416	3.71	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	78.2	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	21.8	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	86.5	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	



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Reported:
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FBJR_17LT026_091417_LOB_07_TA
1709489-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	287	1.89	16.8	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	57.5	0.377	3.37	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.0	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	20.0	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	100	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	

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FBJR_17LT026_091417_LOB_08_TA
1709489-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	265	2.55	22.8	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	46.2	0.444	3.96	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.6	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.4	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	85.5	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	

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FBJR_17LT026_091417_LOB_09_TA
1709489-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	144	2.03	18.1	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	26.8	0.379	3.38	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.3	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.7	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	106	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	

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FBJR_17LT026_091417_LOB_10_TA
1709489-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	179	2.31	20.6	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	34.1	0.441	3.94	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.9	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.1	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	83.6	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	

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FBJR_17LT027_091417_LOB_11_TA
1709489-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	246	2.02	18.0	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	46.9	0.386	3.44	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.9	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.1	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	126	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	

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FBJR_17LT027_091417_LOB_12_TA
1709489-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	219	2.52	22.5	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	38.4	0.441	3.94	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.5	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.5	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	106	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	



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FBJR_17LT027_091417_LOB_13_TA
1709489-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	184	2.13	19.0	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	35.5	0.412	3.68	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.7	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.3	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	105	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	

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FBJR_17LT027_091417_LOB_14_TA
1709489-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	299	1.84	16.4	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	64.8	0.399	3.56	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	78.3	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	21.7	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	82.4	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	

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FBJR_17LT027_091417_LOB_15_TA
1709489-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	187	1.93	17.2	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	38.1	0.391	3.49	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	79.7	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	20.3	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	83.9	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	

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14-Nov-17 14:56

FBJR_17LT027_091417_LOB_16_TA
1709489-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	181	2.25	20.1	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	35.4	0.441	3.94	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.4	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.6	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	15.2	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	

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FBJR_17LT027_091417_LOB_17_TA
1709489-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	203	2.28	20.3	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	39.2	0.439	3.92	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.7	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.3	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	79.4	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 14:56

FBJR_17LT028_091417_LOB_18_TA
1709489-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	196	1.80	16.0	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	43.3	0.397	3.55	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	77.9	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	22.1	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	95.4	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 14:56

FBJR_17LT028_091417_LOB_19_TA
1709489-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	227	2.04	18.2	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	43.8	0.394	3.51	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.7	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.3	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	68.5	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 14:56

FBJR_17LT028_091417_LOB_20_TA
1709489-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	198	2.10	18.8	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	36.0	0.383	3.42	ng/g	100	F709409	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.8	0.1	0.1	% by Weight	1	F710237	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.2	0.1	0.1	% by Weight	1	F709417	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	101	0.10	0.10	g	1	F709420	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 14:56

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7I28009 - F709409											
Cal Standard (7I28009-CAL1)					Prepared & Analyzed: 27-Sep-17						
Mercury	0.533	-		ng/L	0.50100		106				
Cal Standard (7I28009-CAL2)					Prepared & Analyzed: 27-Sep-17						
Mercury	1.019	-		ng/L	1.0020		102				
Cal Standard (7I28009-CAL3)					Prepared & Analyzed: 27-Sep-17						
Mercury	5.014	-		ng/L	5.0100		100				
Cal Standard (7I28009-CAL4)					Prepared & Analyzed: 27-Sep-17						
Mercury	19.39	-		ng/L	20.040		96.8				
Cal Standard (7I28009-CAL5)					Prepared & Analyzed: 27-Sep-17						
Mercury	37.74	-		ng/L	40.080		94.1				
Calibration Blank (7I28009-CCB1)					Prepared & Analyzed: 27-Sep-17						
Mercury	0.059	-		ng/L							
Calibration Blank (7I28009-CCB2)					Prepared & Analyzed: 27-Sep-17						
Mercury	0.106	-		ng/L							
Calibration Blank (7I28009-CCB3)					Prepared & Analyzed: 27-Sep-17						
Mercury	0.095	-		ng/L							
Calibration Blank (7I28009-CCB4)					Prepared & Analyzed: 27-Sep-17						
Mercury	0.145	-		ng/L							
Calibration Blank (7I28009-CCB5)					Prepared & Analyzed: 27-Sep-17						
Mercury	0.404	-		ng/L							

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 14:56

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7I28009 - F709409

Calibration Blank (7I28009-CCB6)											
Prepared & Analyzed: 27-Sep-17											
Mercury	0.256	-		ng/L							
Calibration Blank (7I28009-CCB7)											
Prepared & Analyzed: 27-Sep-17											
Mercury	0.165	-		ng/L							
Calibration Blank (7I28009-CCB8)											
Prepared & Analyzed: 27-Sep-17											
Mercury	0.262	-		ng/L							
Calibration Blank (7I28009-CCB9)											
Prepared & Analyzed: 27-Sep-17											
Mercury	0.108	-		ng/L							
Calibration Check (7I28009-CCV1)											
Prepared & Analyzed: 27-Sep-17											
Mercury	4.829	-		ng/L	5.0000		96.6	77-123			
Calibration Check (7I28009-CCV2)											
Prepared & Analyzed: 27-Sep-17											
Mercury	4.910	-		ng/L	5.0000		98.2	77-123			
Calibration Check (7I28009-CCV3)											
Prepared & Analyzed: 27-Sep-17											
Mercury	5.058	-		ng/L	5.0000		101	77-123			
Calibration Check (7I28009-CCV4)											
Prepared & Analyzed: 27-Sep-17											
Mercury	4.985	-		ng/L	5.0000		99.7	77-123			
Calibration Check (7I28009-CCV6)											
Prepared & Analyzed: 27-Sep-17											
Mercury	5.129	-		ng/L	5.0000		103	77-123			
Calibration Check (7I28009-CCV7)											
Prepared & Analyzed: 27-Sep-17											
Mercury	5.272	-		ng/L	5.0000		105	77-123			

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 14-Nov-17 14:56
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7I28009 - F709409											
Calibration Check (7I28009-CCV8)					Prepared & Analyzed: 27-Sep-17						
Mercury	5.173	-		ng/L	5.0000		103	77-123			
Calibration Check (7I28009-CCV9)					Prepared & Analyzed: 27-Sep-17						
Mercury	5.567	-		ng/L	5.0000		111	77-123			
Calibration Check (7I28009-CCVA)					Prepared & Analyzed: 27-Sep-17						
Mercury	5.183	-		ng/L	5.0000		104	77-123			
Instrument Blank (7I28009-IBL1)					Prepared & Analyzed: 27-Sep-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7I28009-IBL2)					Prepared & Analyzed: 27-Sep-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7I28009-IBL3)					Prepared & Analyzed: 27-Sep-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7I28009-ICV1)					Prepared & Analyzed: 27-Sep-17						
Mercury	5.040	-		ng/L	5.0000		101	79-121			
Batch F709409 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F709409-BLK1)					Prepared: 25-Sep-17 Analyzed: 27-Sep-17						
Mercury	0.616	0.090	0.800	ng/g							J
Blank (F709409-BLK2)					Prepared: 25-Sep-17 Analyzed: 27-Sep-17						
Mercury	ND	0.090	0.800	ng/g							U

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 14-Nov-17 14:56
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F709409 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F709409-BLK3)											
Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	ND	0.090	0.800	ng/g							U
Blank (F709409-BLK4)											
Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	ND	0.087	0.775	ng/g							F-03, U
Blank (F709409-BLK5)											
Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	ND	0.083	0.741	ng/g							F-03, U
LCS (F709409-BS1)											
Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	7.815	0.090	0.800	ng/g	8.0160		97.5	75-125			
LCS (F709409-BS2)											
Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	324.5	3.54	31.6	ng/g	382.50		84.8	75-125			
LCS Dup (F709409-BSD1)											
Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	7.593	0.090	0.800	ng/g	8.0160		94.7	75-125	2.88	24	
Duplicate (F709409-DUP1)											
Source: 1709489-01 Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	43.90	0.431	3.85	ng/g		38.88			12.1	24	
Matrix Spike (F709409-MS1)											
Source: 1709489-01 Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	403.2	1.64	14.7	ng/g	366.30	38.88	99.5	71-125			
Matrix Spike (F709409-MS2)											
Source: 1709489-11 Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	392.9	1.61	14.4	ng/g	359.71	46.91	96.2	71-125			
Matrix Spike Dup (F709409-MSD1)											
Source: 1709489-01 Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	386.7	1.59	14.2	ng/g	355.24	38.88	97.9	71-125	1.56	24	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 14-Nov-17 14:56
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F709409 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F709409-MSD2)		Source: 1709489-11									
Mercury	417.2	1.63	14.6	ng/g	364.30	46.91	102	71-125	5.50	24	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 14-Nov-17 14:56
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F709417 - EFGS-019 Solids Analysis

Duplicate (F709417-DUP1)		Source: 1709489-01			Prepared & Analyzed: 26-Sep-17						
% Solids	18.9	0.1	0.1	% by Weight		19.2			1.57	25	
Duplicate (F709417-DUP2)		Source: 1709489-11			Prepared & Analyzed: 26-Sep-17						
% Solids	19.2	0.1	0.1	% by Weight		19.1			0.522	25	

Batch F710237 - EFGS-019 Solids Analysis

Duplicate (F710237-DUP1)		Source: 1709489-01			Prepared & Analyzed: 05-Oct-17						
% Moisture	81.1	0.1	0.1	% by Weight		80.8			0.371	10	O-04
Duplicate (F710237-DUP2)		Source: 1709489-11			Prepared & Analyzed: 05-Oct-17						
% Moisture	80.8	0.1	0.1	% by Weight		80.9			0.124	10	O-04

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
14-Nov-17 14:56**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- O-09 Total Solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction.
- O-04 This sample was analyzed outside of the recommended holding time.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- E-01 Sample was preceded by a sample exceeding the calibration curve and was reanalyzed for confirmation.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

Total Solids Dataset Cover Page

Dataset ID: TS170925-3
Batch ID: F709417/F710237
Work Order(s): 1709489

Analyst: AMB
Prep. Date: 9/25/2017

Analytical Issues/Explanations:

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: R 10/5/17

Preparation Date: Sep 25, 2017

Batch #: 3

Analyst: AMB

Batch ID: F709417/F710237

Work Order(s): 1709489

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes	% Moisture
1	1709489-01	1.0310	6.3980	5.3670	2.0590	1.0280	19.2%		80.8%
2	1709489-01MD	0.9970	6.1660	5.1690	1.9750	0.9780	18.9%	1.2%	81.1%
3	1709489-02	1.0180	6.3000	5.2820	2.0060	0.9880	18.7%		81.3%
4	1709489-03	1.0240	6.1180	5.0940	2.0550	1.0310	20.2%		79.8%
5	1709489-04	1.0200	6.1930	5.1730	1.9990	0.9790	18.9%		81.1%
6	1709489-05	1.0630	6.1430	5.0800	1.9740	0.9110	17.9%		82.1%
7	1709489-06	1.0320	6.4660	5.4340	2.2140	1.1820	21.8%		78.2%
8	1709489-07	0.9640	6.7810	5.8170	2.1270	1.1630	20.0%		80.0%
9	1709489-08	0.9940	6.2210	5.2270	1.9010	0.9070	17.4%		82.6%
10	1709489-09	1.0130	6.5020	5.4890	2.0370	1.0240	18.7%		81.3%
11	1709489-10	1.0140	6.2170	5.2030	2.0080	0.9940	19.1%		80.9%
12	1709489-11	1.0700	6.6130	5.5430	2.1270	1.0570	19.1%		80.9%
13	1709489-11MD	1.0520	6.3110	5.2590	2.0610	1.0090	19.2%	0.6%	80.8%
14	1709489-12	0.9990	6.6920	5.6930	1.9950	0.9960	17.5%		82.5%
15	1709489-13	1.0380	6.4620	5.4240	2.0870	1.0490	19.3%		80.7%
16	1709489-14	1.0260	6.7050	5.6790	2.2600	1.2340	21.7%		78.3%
17	1709489-15	1.0250	6.1400	5.1150	2.0640	1.0390	20.3%		79.7%
18	1709489-16	0.9850	6.5640	5.5790	2.0780	1.0930	19.6%		80.4%
19	1709489-17	1.0200	6.3800	5.3600	2.0560	1.0360	19.3%		80.7%
20	1709489-18	0.9890	6.4710	5.4820	2.1980	1.2090	22.1%		77.9%
21	1709489-19	0.9990	6.2340	5.2350	2.0080	1.0090	19.3%		80.7%
22	1709489-20	1.0440	6.5660	5.5220	2.0500	1.0060	18.2%		81.8%

PREPARATION BENCH SHEET

F710237

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	μ l Spike1	Spike2 ID	μ l Spike2	Extraction Comments
F710237-DUP1	Duplicate [1709489-01]	5	5					
F710237-DUP2	Duplicate [1709489-11]	5	5					

Standard ID(s):

Description:

Expiration:

PREPARATION BENCH SHEET

F710237

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709489-01	FBJR_17LT024_091417_LOB_01_TA	5	5	QC	-	-	MD/MS/MSD	
1709489-02	FBJR_17LT024_091417_LOB_02_TA	5	5	-	-	-		
1709489-03	FBJR_17LT024_091417_LOB_03_TA	5	5	-	-	-		
1709489-04	FBJR_17LT024_091417_LOB_04_TA	5	5	-	-	-		
1709489-05	FBJR_17LT025_091417_LOB_05_TA	5	5	-	-	-		
1709489-06	FBJR_17LT025_091417_LOB_06_TA	5	5	-	-	-		
1709489-07	FBJR_17LT026_091417_LOB_07_TA	5	5	-	-	-		
1709489-08	FBJR_17LT026_091417_LOB_08_TA	5	5	-	-	-		
1709489-09	FBJR_17LT026_091417_LOB_09_TA	5	5	-	-	-		
1709489-10	FBJR_17LT026_091417_LOB_10_TA	5	5	-	-	-		
1709489-11	FBJR_17LT027_091417_LOB_11_TA	5	5	QC	-	-	MS/MSD	
1709489-12	FBJR_17LT027_091417_LOB_12_TA	5	5	-	-	-		
1709489-13	FBJR_17LT027_091417_LOB_13_TA	5	5	-	-	-		
1709489-14	FBJR_17LT027_091417_LOB_14_TA	5	5	-	-	-		
1709489-15	FBJR_17LT027_091417_LOB_15_TA	5	5	-	-	-		
1709489-16	FBJR_17LT027_091417_LOB_16_TA	5	5	-	-	-		
1709489-17	FBJR_17LT027_091417_LOB_17_TA	5	5	-	-	-		
1709489-18	FBJR_17LT028_091417_LOB_18_TA	5	5	-	-	-		
1709489-19	FBJR_17LT028_091417_LOB_19_TA	5	5	-	-	-		

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F710237

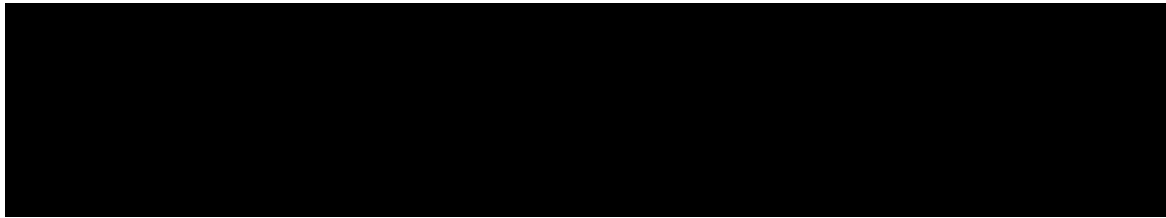
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

1709489-20	FBJR_17LT028_091417_LOB_20_TA	5	5	-	-	-		
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Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: CF, DA

Date: 9/25/17

Reviewer: DM

Date: 9/27/17

WO #: 1709490
1709489 ^{CF} _{9/26/17}

Batch #: F709420

Dataset ID: F709420

Reviewer Initials: DM

General Comments/Ra-run requirements:

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date	
<u>CF</u>	<u>5/9/17</u>	<input checked="" type="checkbox"/>
<u>DA</u>	<u>12/13/16</u>	<input checked="" type="checkbox"/>

Reviewer Initials: DM

1. Total Solids

A. Check for transcription errors from Benchsheet/Raw Data

- (i) Do sample ID(s) match?
- (ii) Do masses/volumes match?
- (iii) Are the analyst name, dataset ID, and preparation date listed?
- (iv) Does the LIMS benchsheet prep date match the actual prep date?

B. Does the batch include 1 MD/MT per 10 client samples?

C. MD RPD/MT RSD ≤ 10%

D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

<input type="checkbox"/> Density Only - NA this section			
<input checked="" type="checkbox"/> DONE			<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<u>N/A</u>	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<u>N/A</u>	<input type="checkbox"/>
		<input type="checkbox"/> N/A	<input type="checkbox"/>

2. Density

A. Check for transcription errors from Benchsheet/Raw Data

- (i) Do sample ID(s) match?
- (ii) Do masses/volumes match?
- (iii) Are the analyst name, dataset ID, and preparation date listed?
- (iv) Does the LIMS benchsheet prep date match the actual prep date?
- (v) Volume (if other than 1 mL): _____ Can the calculated result be reproduced?

<input checked="" type="checkbox"/> Total Solids Only - NA this section			
<input type="checkbox"/> DONE			<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/>

DM 9/27/17

AmecFW Maine Lobster Special Project 2017- Lobster Homogenization Logbook

Work Order NUMBER	Tech Initials	Date	Thawed Y/ N	Balance ID	Tail Weight (g)	Tail de-veined Y/ N	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	% Lipids Subsample taken Y/N	Comments
1709489-01	WF	9/21/17	Y	18	79.48	Y	2	Y	
1709489-02	AF	9/21/17	Y	18	77.52	Y	2	Y	
1709489-03	AF	9/21/17	Y	18	87.46	Y	2	Y	
1709489-04	AF	9/21/17	Y	18	87.71	Y	2	Y	
1709489-05	AF	9/21/17	Y	18	78.44	Y	2	Y	
1709489-06	AF	9/21/17	Y	18	86.48	Y	2	Y	
1709489-07	AF	9/21/17	Y	18	99.99	Y	2	Y	
1709489-08	AMB	9/21/17	Y	18	85.50	Y	2	Y	
1709489-09	AF	9/21/17	Y	18	106.31	Y	2	Y	
1709489-10	AMB	9/21/17	Y	18	83.61	Y	2	Y	
1709489-11	AF	9/21/17	Y	18	125.2	Y	2	Y	
1709489-12	AF	9/21/17	Y	18	105.53	Y	2	Y	
1709489-13	AF	11/1/17	Y	18	104.81	Y	2	Y	
1709489-14	AF	9/21/17	Y	18	82.57	Y	2	Y	
1709489-15	AF	9/14/17	Y	18	83.93	Y	2	Y	
1709489-16	AF	9/21/17	Y	18	75.21	Y	2	Y	
1709489-17	AMB	9/21/17	Y	18	79.37	Y	2	Y	
1709489-18	AMB	9/21/17	Y	18	95.38	Y	2	Y	

AMB
489-12
9-21-17

AmecFW Maine Lobster Special Project 2017- Lobster Homogenization Logbook

Work Order NUMBER	Tech Initials	Date	Thawed Y/ N	Balance ID	Tail Weight (g)	Tail de-veined Y/ N	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3= Other	% Lipids Subsample taken Y/N	Comments
1709489-19	AMB	9/21/17	Y	18	68.54	Y	2	Y	
1709489-20	AMB	9/21/17	Y	18	100.87	Y	2	Y	
1709490-01	DH	9/22/17	Y	18	83.41	Y	2	Y	
1709490-02	DH	9/22/17	Y	18	110.56	Y	2	Y	
1709490-03	DH	9/22/17	Y	18	137.90	Y	2	Y	
1709490-04	DH	9/22/17	Y	18	143.40	Y	2	Y	
1709490-05	DH	9/22/17	Y	18	198.36	Y	2	Y	
1709490-06	DH	9/22/17	Y	18	69.36	Y	2	Y	
1709490-07	DH	9/22/17	Y	18	130.43	Y	2	Y	
1709490-08	DM	9-22-17	Y	18	105.07	Y	2	Y	
1709490-09	DM	9/22/17	Y	18	142.60	Y	2	Y	
1709490-10	DM	9/22/17	Y	18	152.23	Y	2	Y	
1709490-11	DH	9/22/17	Y	18	77.87	Y	2	Y	
1709490-12	DH	9/22/17	Y	18	140.72	Y	2	Y	
1709490-13	DH	9/22/17	Y	18	105.46	Y	2	Y	
1709490-14	DH	9/22/17	Y	18	100.55	Y	2	Y	
1709491-01	DM	9/22/17	Y	18	184.11	Y	2	Y	
1709490-15	DH	9/22/17	Y	18	151.98	Y	2	Y	1709490-15 9/22/17

9/22/17

PREPARATION BENCH SHEET

F709420

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - No Preparation

Prepared: 9/25/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709489-01	FBJR_17LT024_091417_LOB_01_TA	1	1	QC	-	-	MD/MS/MSD Total Mass of Lobster Ta	
1709489-02	FBJR_17LT024_091417_LOB_02_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-03	FBJR_17LT024_091417_LOB_03_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-04	FBJR_17LT024_091417_LOB_04_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-05	FBJR_17LT025_091417_LOB_05_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-06	FBJR_17LT025_091417_LOB_06_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-07	FBJR_17LT026_091417_LOB_07_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-08	FBJR_17LT026_091417_LOB_08_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-09	FBJR_17LT026_091417_LOB_09_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-10	FBJR_17LT026_091417_LOB_10_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-11	FBJR_17LT027_091417_LOB_11_TA	1	1	QC	-	-	MS/MSD Total Mass of Lobster Tail M	
1709489-12	FBJR_17LT027_091417_LOB_12_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-13	FBJR_17LT027_091417_LOB_13_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-14	FBJR_17LT027_091417_LOB_14_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-15	FBJR_17LT027_091417_LOB_15_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-16	FBJR_17LT027_091417_LOB_16_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-17	FBJR_17LT027_091417_LOB_17_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-18	FBJR_17LT028_091417_LOB_18_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709489-19	FBJR_17LT028_091417_LOB_19_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709420

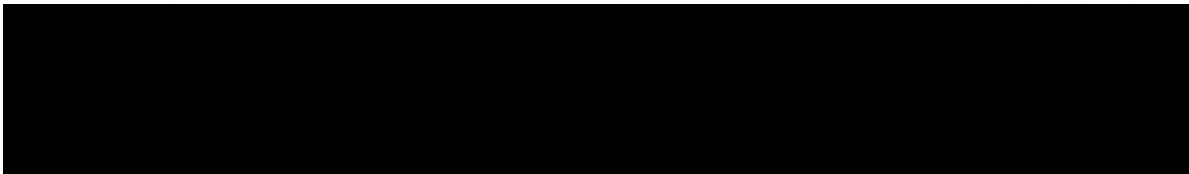
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - No Preparation

Prepared: 9/25/2017

1709489-20	FBJR_17LI028_091417_LOB 20_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EPSI	
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Frontier Global Sci

Total Solids Dataset Cover Page

Dataset ID: TS170925-3
Batch ID: F709417
Work Order(s): 1709489

Analyst: AMB
Prep. Date: 9/25/2017

Analytical Issues/Explanations:

QUALITY ASSURANCE
PEER-REVIEWED
INITIALS: on 9/28/17

Preparation Date: Sep 25, 2017

Batch #: 3

Analyst: AMB

Batch ID: F709417

Work Order(s): 1709489

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes
1	1709489-01	1.0310	6.3980	5.3670	2.0590	1.0280	19.2%	
2	1709489-01MD	0.9970	6.1660	5.1690	1.9750	0.9780	18.9%	1.2%
3	1709489-02	1.0180	6.3000	5.2820	2.0060	0.9880	18.7%	
4	1709489-03	1.0240	6.1180	5.0940	2.0550	1.0310	20.2%	
5	1709489-04	1.0200	6.1930	5.1730	1.9990	0.9790	18.9%	
6	1709489-05	1.0630	6.1430	5.0800	1.9740	0.9110	17.9%	
7	1709489-06	1.0320	6.4660	5.4340	2.2140	1.1820	21.8%	
8	1709489-07	0.9640	6.7810	5.8170	2.1270	1.1630	20.0%	
9	1709489-08	0.9940	6.2210	5.2270	1.9010	0.9070	17.4%	
10	1709489-09	1.0130	6.5020	5.4890	2.0370	1.0240	18.7%	
11	1709489-10	1.0140	6.2170	5.2030	2.0080	0.9940	19.1%	
12	1709489-11	1.0700	6.6130	5.5430	2.1270	1.0570	19.1%	
13	1709489-11MD	1.0520	6.3110	5.2590	2.0610	1.0090	19.2%	0.5%
14	1709489-12	0.9990	6.6920	5.6930	1.9950	0.9960	17.5%	
15	1709489-13	1.0380	6.4620	5.4240	2.0870	1.0490	19.3%	
16	1709489-14	1.0260	6.7050	5.6790	2.2600	1.2340	21.7%	
17	1709489-15	1.0250	6.1400	5.1150	2.0640	1.0390	20.3%	
18	1709489-16	0.9850	6.5640	5.5790	2.0780	1.0930	19.6%	
19	1709489-17	1.0200	6.3800	5.3600	2.0560	1.0360	19.3%	
20	1709489-18	0.9890	6.4710	5.4820	2.1980	1.2090	22.1%	
21	1709489-19	0.9990	6.2340	5.2350	2.0080	1.0090	19.3%	
22	1709489-20	1.0440	6.5660	5.5220	2.0500	1.0060	18.2%	

Remote Lab Total Solids Logbook

Lab Technician(s): AMB Batch: F709417 Date: 9/25/17 Page 1 of 1
 Thermometer #: 12040513671 Oven #: OVN-01 Actual temperature: 103.1 (Range 103-105°C)
 Balance #¹: 6 Start time: 2030 End time²: 1200 Time re-weighed³: 1230-1245
 Client(s)/WO#: 1709489 AMB 9-26-17

Sample ID	Pan #	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Notes
1709489-01	A1	1.031	6.398	2.059	
F709417-DUP1	A2	0.997	6.166	1.975	Source: 1709489-01
1709489-02	A3	1.018	6.300	2.006	
1709489-03	A4	1.024	6.118	2.055	
1709489-04	A5	1.020	6.193	1.999	
1709489-05	A6	1.063	6.143	1.974	
1709489-06	A7	1.032	6.466	2.214	
1709489-07	A8	0.964	6.781	2.127	
1709489-08	A9	0.994	6.221	1.901	
1709489-09	A10	1.013	6.502	2.037	
1709489-10	A11	1.014	6.217	2.008	
1709489-11	A12	1.070	6.613	2.127	
F709417-DUP2	A13	1.052	6.311	2.061	Source: 1709489-11
1709489-12	A14	0.999	6.692	1.995	
1709489-13	A15	1.038	6.462	2.087	
1709489-14	A16	1.026	6.705	2.260	
1709489-15	A17	1.025	6.140	2.064	
1709489-16	A18	0.985	6.564	2.078	
1709489-17	A19	1.020	6.380	2.056	
1709489-18	A20	0.989	6.471	2.198	
1709489-19	A21	0.999	6.234	2.008	
1709489-20	A22	1.044	6.566	2.050	
<u>AMB 9/25/17</u>					

Comments:

¹The same balance must be used to weight samples before and after ovening.

²Samples must be ovened over 12 hours.

³Samples must be re-weighed within 30 minutes of oven cool down.

PREPARATION BENCH SHEET

F709417

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	μ l Spike1	Spike2 ID	μ l Spike2	Extraction Comments
F709417-DUP1	Duplicate [1709489-01]	5	5					
F709417-DUP2	Duplicate [1709489-11]	5	5					

Standard ID(s):

Description:

Expiration:

PREPARATION BENCH SHEET

F709417

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709489-01	FBJR_17LT024_091417_LOB_01_TA	5	5	QC	-	-	MD/MS/MSD	
1709489-02	FBJR_17LT024_091417_LOB_02_TA	5	5	-	-	-		
1709489-03	FBJR_17LT024_091417_LOB_03_TA	5	5	-	-	-		
1709489-04	FBJR_17LT024_091417_LOB_04_TA	5	5	-	-	-		
1709489-05	FBJR_17LT025_091417_LOB_05_TA	5	5	-	-	-		
1709489-06	FBJR_17LT025_091417_LOB_06_TA	5	5	-	-	-		
1709489-07	FBJR_17LT026_091417_LOB_07_TA	5	5	-	-	-		
1709489-08	FBJR_17LT026_091417_LOB_08_TA	5	5	-	-	-		
1709489-09	FBJR_17LT026_091417_LOB_09_TA	5	5	-	-	-		
1709489-10	FBJR_17LT026_091417_LOB_10_TA	5	5	-	-	-		
1709489-11	FBJR_17LT027_091417_LOB_11_TA	5	5	QC	-	-	MS/MSD	
1709489-12	FBJR_17LT027_091417_LOB_12_TA	5	5	-	-	-		
1709489-13	FBJR_17LT027_091417_LOB_13_TA	5	5	-	-	-		
1709489-14	FBJR_17LT027_091417_LOB_14_TA	5	5	-	-	-		
1709489-15	FBJR_17LT027_091417_LOB_15_TA	5	5	-	-	-		
1709489-16	FBJR_17LT027_091417_LOB_16_TA	5	5	-	-	-		
1709489-17	FBJR_17LT027_091417_LOB_17_TA	5	5	-	-	-		
1709489-18	FBJR_17LT028_091417_LOB_18_TA	5	5	-	-	-		
1709489-19	FBJR_17LT028_091417_LOB_19_TA	5	5	-	-	-		

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709417

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 9/26/2017

1709489-20	FBJR_17LT028_091417_I.OB_20_TA	5	5	-	-	-		
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Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: AMB

Date: 9/26/17

Reviewer: DM

Date: 9/28/17

WO #: 1709489

Batch #: F709417

Dataset ID: TS170925-3

Reviewer Initials: DM

General Comments/Re-run requirements:

[Empty box for general comments]

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date	
<u>AMB</u>	<u>6/2/16</u>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>

Reviewer Initials: DM

1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

Density Only - NA this section

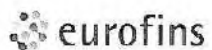
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<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
		<input type="checkbox"/> N/A

2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
 - (v) Volume (if other than 1 mL): _____, Can the calculated result be reproduced?

Total Solids Only - NA this section

<input type="checkbox"/> DONE		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
		<input type="checkbox"/> N/A



Frontier Global Sciences

THg26002-170927-1

Analysis Datasheet for Total Mercury

Date of Analysis: September 27, 2017

Instrument #: Hg2600-2

LIMS Sequence #: 7128009

Analyst: BC

Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	91.08 units	182.16	73.06 units	146.13	106.6 %Rec
SEQ-CAL2	1	1.00 ng/L	157.70 units	157.70	139.68 units	139.68	101.9 %Rec
SEQ-CAL3	1	5.00 ng/L	705.65 units	141.13	687.64 units	137.53	100.3 %Rec
SEQ-CAL4	1	20.00 ng/L	2677.69 units	133.88	2659.67 units	132.98	97.0 %Rec
SEQ-CAL5	1	40.00 ng/L	5193.00 units	129.83	5174.98 units	129.37	94.3 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 137.14 +/- 6.42 4.7% RSD 148.94

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	18.02 units	±2.21	0.12 ng/l	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	2.941 ng/L	±1.127
BLK	2	3	3.209 ng/L	±1.928
BLK	3	3	3.888 ng/L	±2.485
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: DM 9/28/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hg2600-2	BC	CAL	SEQ-IBL1	1	9/27/2017 8:25:28	85988-1.RAW	8:25:28 AM	16.83			-1.2	-0.009	-0.009	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	9/27/2017 8:29:37	85989-1.RAW	8:29:37 AM	16.85			-1.4	-0.010	-0.010	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	9/27/2017 8:33:45	85990-1.RAW	8:33:45 AM	20.57			2.6	0.019	0.019	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	9/27/2017 8:37:54	85991-1.RAW	8:37:54 AM	91.08			73.1	0.533	0.533	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	9/27/2017 8:42:02	85992-1.RAW	8:42:02 AM	157.70			139.7	1.019	1.019	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	9/27/2017 8:46:10	85993-1.RAW	8:46:10 AM	705.56			687.6	5.014	5.014	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	9/27/2017 8:50:18	85994-1.RAW	8:50:18 AM	2677.89			2659.7	19.394	19.394	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	9/27/2017 8:54:27	85995-1.RAW	8:54:27 AM	5193.00			5175.0	37.735	37.735	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	9/27/2017 8:58:36	85996-1.RAW	8:58:36 AM	709.16			691.1	5.040	5.040	ng/L	
Hg2600-2	BC	BLK	F709409-BLK1	20	9/27/2017 9:05:51	85997-2.RAW	9:05:51 AM	70.82	1		52.8	0.385	7.701	ng/L	
Hg2600-2	BC	BLK	F709409-BLK2	20	9/27/2017 9:10:00	85998-1.RAW	9:10:00 AM	23.15	1		5.1	0.037	0.749	ng/L	
Hg2600-2	BC	BLK	F709409-BLK3	20	9/27/2017 9:14:08	85999-1.RAW	9:14:08 AM	20.57	1		2.6	0.019	0.372	ng/L	
Hg2600-2	BC	SAM	*F709409-BLK4	20	9/27/2017 9:18:17	86000-1.RAW	9:18:17 AM	20.67	1		2.7	0.128	-2.554	ng/L	
Hg2600-2	BC	SAM	*F709409-BLK5	20	9/27/2017 9:22:25	86001-1.RAW	9:22:25 AM	24.12	1		6.1	-0.103	-2.050	ng/L	
Hg2600-2	BC	SAM	F709409-BS1	20	9/27/2017 9:26:33	86002-1.RAW	9:26:33 AM	707.99	1		690.0	4.884	97.683	ng/L	
Hg2600-2	BC	SAM	F709409-BSD1	20	9/27/2017 9:30:42	86003-1.RAW	9:30:42 AM	688.99	1		671.0	4.746	94.911	ng/L	
Hg2600-2	BC	SAM	F709409-BS2	400	9/27/2017 9:34:50	86004-1.RAW	9:34:50 AM	722.68	1		704.5	5.131	2052.321	ng/L	
Hg2600-2	BC	SAM	1709489-C1	100	9/27/2017 9:38:59	86005-1.RAW	9:38:59 AM	733.83	1		715.8	5.190	519.020	ng/L	
Hg2600-2	BC	SAM	1709489-C2	100	9/27/2017 9:43:07	86006-1.RAW	9:43:07 AM	697.11	1		679.1	4.193	419.326	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	9/27/2017 9:47:15	86007-1.RAW	9:47:15 AM	680.27			662.3	4.829	4.829	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	9/27/2017 9:51:24	86008-1.RAW	9:51:24 AM	26.14			8.1	0.059	0.059	ng/L	
Hg2600-2	BC	SAM	1709489-C3	100	9/27/2017 9:55:32	86009-1.RAW	9:55:32 AM	804.78	1		786.8	5.208	570.756	ng/L	
Hg2600-2	BC	SAM	1709489-C4	100	9/27/2017 9:59:41	86010-1.RAW	9:59:41 AM	889.00	1		871.0	6.322	632.168	ng/L	
Hg2600-2	BC	SAM	1709489-C5	100	9/27/2017 10:03:49	86011-1.RAW	10:03:49 AM	884.65	1		866.5	4.832	483.159	ng/L	
Hg2600-2	BC	SAM	1709489-C6	100	9/27/2017 10:07:58	86012-1.RAW	10:07:58 AM	672.50	1		654.5	4.743	474.299	ng/L	
Hg2600-2	BC	SAM	1709489-C7	100	9/27/2017 10:12:06	86013-1.RAW	10:12:06 AM	1192.92	1		1174.9	6.538	853.781	ng/L	
Hg2600-2	BC	SAM	1709489-C8	100	9/27/2017 10:16:14	86014-1.RAW	10:16:14 AM	821.42	1		803.4	5.829	582.889	ng/L	
Hg2600-2	BC	SAM	1709489-C9	100	9/27/2017 10:20:23	86015-1.RAW	10:20:23 AM	588.03	1		548.0	3.967	396.663	ng/L	
Hg2600-2	BC	SAM	1709489-10	100	9/27/2017 10:24:31	86016-1.RAW	10:24:31 AM	616.60	1		598.8	4.337	433.683	ng/L	
Hg2600-2	BC	SAM	1709489-11	100	9/27/2017 10:28:40	86017-1.RAW	10:28:40 AM	956.55	1		938.5	6.814	681.424	ng/L	
Hg2600-2	BC	SAM	1709489-12	100	9/27/2017 10:32:48	86018-1.RAW	10:32:48 AM	690.93	1		672.9	4.878	487.760	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	9/27/2017 10:36:56	86019-1.RAW	10:36:56 AM	691.42			673.4	4.910	4.910	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	9/27/2017 10:41:05	86020-1.RAW	10:41:05 AM	32.56			14.5	0.106	0.106	ng/L	
Hg2600-2	BC	SAM	1709489-13	100	9/27/2017 10:45:13	86021-1.RAW	10:45:13 AM	683.78	1		665.8	4.825	482.524	ng/L	
Hg2600-2	BC	SAM	1709489-14	100	9/27/2017 10:49:22	86022-1.RAW	10:49:22 AM	1271.40	1		1253.4	9.110	911.008	ng/L	
Hg2600-2	BC	SAM	1709489-15	100	9/27/2017 10:53:30	86023-1.RAW	10:53:30 AM	789.62	1		751.6	5.451	545.117	ng/L	
Hg2600-2	BC	SAM	1709489-16	100	9/27/2017 10:57:39	86024-1.RAW	10:57:39 AM	638.60	1		620.8	4.197	449.725	ng/L	
Hg2600-2	BC	SAM	1709489-17	100	9/27/2017 11:01:47	86025-1.RAW	11:01:47 AM	707.12	1		689.1	4.995	495.543	ng/L	
Hg2600-2	BC	SAM	1709489-18	100	9/27/2017 11:05:55	86026-1.RAW	11:05:55 AM	858.64	1		840.6	6.100	610.025	ng/L	
Hg2600-2	BC	SAM	1709489-19	100	9/27/2017 11:10:04	86027-1.RAW	11:10:04 AM	878.08	1		858.1	6.227	622.746	ng/L	
Hg2600-2	BC	SAM	1709489-20	100	9/27/2017 11:14:12	86028-1.RAW	11:14:12 AM	744.62	1		726.8	5.770	577.034	ng/L	
Hg2600-2	BC	SAM	F709409-DUP1	100	9/27/2017 11:18:21	86029-1.RAW	11:18:21 AM	804.72	1		786.7	5.707	570.712	ng/L	
Hg2600-2	BC	SAM	F709409-MS1	400	9/27/2017 11:22:29	86030-1.RAW	11:22:29 AM	1906.09	1		1888.1	13.760	5504.079	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	9/27/2017 11:26:38	86031-1.RAW	11:26:38 AM	711.66			693.6	5.058	5.058	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	9/27/2017 11:30:46	86032-1.RAW	11:30:46 AM	31.03			13.0	0.095	0.095	ng/L	
Hg2600-2	BC	SAM	F709409-MSD1	400	9/27/2017 11:34:54	86033-1.RAW	11:34:54 AM	1885.31	1		1867.3	13.609	5443.470	ng/L	
Hg2600-2	BC	SAM	F709409-MSD2	400	9/27/2017 11:39:03	86034-1.RAW	11:39:03 AM	1891.64	1		1873.6	13.655	5461.933	ng/L	
Hg2600-2	BC	SAM	F709409-MSD3	400	9/27/2017 11:43:11	86035-1.RAW	11:43:11 AM	1882.01	1		1864.0	14.314	5725.518	ng/L	
Hg2600-2	BC	BLK	F709410-BLK1	20	9/27/2017 11:47:20	86036-1.RAW	11:47:20 AM	32.88	2		35.0	0.255	5.099	ng/L	
Hg2600-2	BC	BLK	F709410-BLK2	20	9/27/2017 11:51:28	86037-1.RAW	11:51:28 AM	40.52	2		22.5	0.164	3.282	ng/L	
Hg2600-2	BC	BLK	F709410-BLK3	20	9/27/2017 11:55:36	86038-1.RAW	11:55:36 AM	23.50	2		8.5	0.062	1.245	ng/L	
Hg2600-2	BC	SAM	*F709410-BLK4	20	9/27/2017 11:59:45	86039-1.RAW	11:59:45 AM	68.34	2		50.3	0.207	4.130	ng/L	
Hg2600-2	BC	SAM	*F709410-BLK5	20	9/27/2017 12:03:53	86040-1.RAW	12:03:53 PM	23.64	2		5.6	-0.119	2.389	ng/L	
Hg2600-2	BC	SAM	F709410-BS1	20	9/27/2017 12:08:02	86041-1.RAW	12:08:02 PM	705.79	2		687.8	4.855	97.094	ng/L	
Hg2600-2	BC	SAM	F709410-BSD1	20	9/27/2017 12:12:10	86042-1.RAW	12:12:10 PM	731.45	2		713.4	5.042	100.836	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	9/27/2017 12:16:19	86043-1.RAW	12:16:19 PM	701.69			683.7	4.985	4.985	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	9/27/2017 12:20:27	86044-1.RAW	12:20:27 PM	87.96			19.0	0.145	0.145	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?						
Hg2600-2	BC	SAM	F709410-BS2	400	9/27/2017 12:24:35	86045-1.RAW	12:24:35 PM	748.55	2			730.5	5.319	2127.567	ng/L	
Hg2600-2	BC	SAM	1709490-01	100	9/27/2017 12:28:44	86046-1.RAW	12:28:44 PM	2775.77	2			2757.7	20.077	2007.667	ng/L	
Hg2600-2	BC	SAM	1709490-02	100	9/27/2017 12:32:52	86047-1.RAW	12:32:52 PM	2813.09	2			2795.1	20.349	2034.917	ng/L	
Hg2600-2	BC	SAM	1709490-03	100	9/27/2017 12:37:01	86048-1.RAW	12:37:01 PM	1714.82	2			7156.3	52.151	5215.061	ng/L	
Hg2600-2	BC	SAM	1709490-04	100	9/27/2017 12:41:09	86049-1.RAW	12:41:09 PM	4454.00	2			4436.0	32.314	3231.144	ng/L	
Hg2600-2	BC	SAM	1709490-05	100	9/27/2017 12:45:16	86050-1.RAW	12:45:16 PM	3958.38	2			3938.4	28.686	2868.587	ng/L	
Hg2600-2	BC	SAM	1709490-06	100	9/27/2017 12:49:26	86051-1.RAW	12:49:26 PM	4805.34	2			4787.3	34.876	3487.636	ng/L	
Hg2600-2	BC	SAM	1709490-07	100	9/27/2017 12:53:34	86052-1.RAW	12:53:34 PM	4272.56	2			4254.6	30.992	3099.163	ng/L	
Hg2600-2	BC	SAM	1709490-08	100	9/27/2017 12:57:43	86053-1.RAW	12:57:43 PM	3942.15	2			3924.1	28.587	2858.211	ng/L	
Hg2600-2	BC	SAM	1709490-09	100	9/27/2017 13:01:51	86054-1.RAW	1:01:51 PM	10528.98	2			10511.0	76.612	7661.229	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	9/27/2017 13:05:59	86055-1.RAW	1:05:59 PM	871.97				853.6	6.274	6.224	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	9/27/2017 13:10:33	86056-2.RAW	1:10:33 PM	73.48				55.5	0.404	0.404	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	9/27/2017 13:14:41	86057-1.RAW	1:14:41 PM	721.47				703.5	5.129	5.129	ng/L	
Hg2600-2	BC	CAI	SFQ-CCV7	1	9/27/2017 13:18:50	86058-1.RAW	1:18:50 PM	740.98				723.0	5.272	5.272	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	9/27/2017 13:22:59	86059-1.RAW	1:22:59 PM	53.13				35.1	0.256	0.256	ng/L	
Hg2600-2	BC	SAM	1709490-10	100	9/27/2017 13:27:07	86060-1.RAW	1:27:07 PM	7101.95	2			7083.9	51.623	5162.290	ng/L	
Hg2600-2	BC	SAM	1709490-11	100	9/27/2017 13:31:16	86061-1.RAW	1:31:16 PM	4265.59	2			4247.6	30.941	3094.058	ng/L	
Hg2600-2	BC	SAM	1709490-12	100	9/27/2017 13:35:25	86062-1.RAW	1:35:25 PM	16290.68	2			16272.7	118.626	11862.575	ng/L	
Hg2600-2	BC	SAM	CLEAN		9/27/2017 13:47:50	86064-1.RAW	1:47:50 PM	202.68		x		164.7	1.347	0.000	ng/L	
Hg2600-2	BC	SAM	WS		9/27/2017 13:51:59	86065-1.RAW	1:51:59 PM	60.70		x		42.7	0.311	0.000	ng/L	
Hg2600-2	BC	SAM	CLEAN		9/27/2017 13:55:30	86066-1.RAW	1:55:30 PM	17.99		x		0.0	0.000	0.000	ng/L	
Hg2600-2	BC	SAM	WS		9/27/2017 13:59:39	86067-1.RAW	1:59:39 PM	40.76		x		27.7	0.165	0.000	ng/L	
Hg2600-2	BC	SAM	1709490-13	400	9/27/2017 14:03:47	86063-3.RAW	2:03:47 PM	730.87	2			712.9	5.190	2075.999	ng/L	
Hg2600-2	BC	SAM	1709490-14	400	9/27/2017 14:07:56	86068-1.RAW	2:07:56 PM	730.99	2			713.0	5.191	2076.249	ng/L	
Hg2600-2	BC	SAM	1709490-15	400	9/27/2017 14:12:04	86069-1.RAW	2:12:04 PM	1389.03	2			1371.0	9.989	3995.681	ng/L	
Hg2600-2	BC	SAM	1709490-16	400	9/27/2017 14:16:12	86070-1.RAW	2:16:12 PM	1639.78	2			1621.8	11.818	4727.054	ng/L	
Hg2600-2	BC	SAM	1709490-17	400	9/27/2017 14:20:21	86071-1.RAW	2:20:21 PM	2254.94	2			2236.9	16.303	6521.316	ng/L	
Hg2600-2	BC	SAM	1709490-18	400	9/27/2017 14:24:29	86072-1.RAW	2:24:29 PM	537.05	2			519.0	3.777	1510.677	ng/L	
Hg2600-2	BC	SAM	1709490-19	400	9/27/2017 14:28:38	86073-1.RAW	2:28:38 PM	557.98	2			539.1	3.923	1569.099	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8	1	9/27/2017 14:32:46	86074-1.RAW	2:32:46 PM	727.46				709.4	5.173	5.173	ng/L	
Hg2600-2	BC	CAI	SEQ-CCV7	1	9/27/2017 14:36:55	86075-1.RAW	2:36:55 PM	40.71				22.7	0.165	0.165	ng/L	
Hg2600-2	BC	SAM	1709490-20	400	9/27/2017 14:41:03	86076-1.RAW	2:41:03 PM	958.73	2			940.7	6.852	2740.608	ng/L	
Hg2600-2	BC	SAM	1709490-03RE1	400	9/27/2017 14:45:11	86077-1.RAW	2:45:11 PM	1849.00	2			1831.0	13.343	5337.294	ng/L	
Hg2600-2	BC	SAM	1709490-04RE1	400	9/27/2017 14:49:20	86078-1.RAW	2:49:20 PM	1126.90	2			1108.9	8.078	3251.116	ng/L	
Hg2600-2	BC	SAM	1709490-09RE1	400	9/27/2017 14:53:28	86079-1.RAW	2:53:28 PM	2793.42	2			2775.4	20.230	8091.923	ng/L	
Hg2600-2	BC	SAM	1709490-10RE1	400	9/27/2017 14:57:37	86080-1.RAW	2:57:37 PM	1893.90	2			1875.9	13.671	5468.256	ng/L	
Hg2600-2	BC	SAM	1709490-11RE1	400	9/27/2017 15:01:45	86081-1.RAW	3:01:45 PM	1072.21	2			1054.2	7.679	3071.600	ng/L	
Hg2600-2	BC	SAM	1709490-12RE1	400	9/27/2017 15:05:53	86082-1.RAW	3:05:53 PM	4270.59	2			4252.6	31.001	12400.444	ng/L	
Hg2600-2	BC	SAM	F709410-DUP1	100	9/27/2017 15:10:02	86083-1.RAW	3:10:02 PM	2915.02	2			2897.0	21.062	2109.243	ng/L	
Hg2600-2	BC	SAM	F709410-MS1	400	9/27/2017 15:14:10	86084-1.RAW	3:14:10 PM	2351.11	2			2333.1	17.005	6801.819	ng/L	
Hg2600-2	BC	SAM	F709410-MSD1	400	9/27/2017 15:18:19	86085-1.RAW	3:18:19 PM	2491.98	2			2474.0	18.032	7212.700	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV9	1	9/27/2017 15:22:27	86086-1.RAW	3:22:27 PM	781.45				763.4	5.567	5.567	ng/L	
Hg2600-2	BC	CAI	SFQ-CCV8	1	9/27/2017 15:26:36	86087-1.RAW	3:26:36 PM	53.93				35.9	0.262	0.262	ng/L	
Hg2600-2	BC	SAM	F709410-MS2	400	9/27/2017 15:30:44	86088-1.RAW	3:30:44 PM	2751.14	2			2743.1	19.994	7997.770	ng/L	
Hg2600-2	BC	SAM	F709410-MSD2	400	9/27/2017 15:34:52	86089-1.RAW	3:34:52 PM	2835.83	2			2817.8	20.539	8215.622	ng/L	
Hg2600-2	BC	BLK	F709433-BLK1	20	9/27/2017 15:39:01	86090-1.RAW	3:39:01 PM	53.98	3			46.0	0.335	6.703	ng/L	
Hg2600-2	BC	BLK	F709433-BLK2	20	9/27/2017 15:43:09	86091-1.RAW	3:43:09 PM	38.32	3			20.3	0.148	7.961	ng/L	
Hg2600-2	BC	BLK	F709433-BLK3	20	9/27/2017 15:47:18	86092-1.RAW	3:47:18 PM	31.72	3			13.7	0.100	1.998	ng/L	
Hg2600-2	BC	SAM	F709433-BS1	20	9/27/2017 15:51:26	86093-1.RAW	3:51:26 PM	743.22	3			725.2	5.094	101.874	ng/L	
Hg2600-2	BC	SAM	F709433-BS2	20	9/27/2017 15:55:34	86094-1.RAW	3:55:34 PM	724.21	3			706.2	4.955	99.102	ng/L	
Hg2600-2	BC	SAM	F709433-BS3	20	9/27/2017 15:59:43	86095-1.RAW	3:59:43 PM	745.24	3			727.3	5.109	102.183	ng/L	
Hg2600-2	BC	SAM	F709433-BS4	20	9/27/2017 16:03:51	86096-1.RAW	4:03:51 PM	713.15	3			695.1	4.874	97.489	ng/L	
Hg2600-2	BC	SAM	1709674-01	20	9/27/2017 16:08:00	86097-1.RAW	4:08:00 PM	38.50	3			20.5	-0.045	-0.900	ng/L	
Hg2600-2	BC	CAL	SEQ-CCVA	1	9/27/2017 16:12:08	86098-1.RAW	4:12:08 PM	728.86				710.8	5.183	5.183	ng/L	
Hg2600-2	BC	CAI	SFQ-CCV9	1	9/27/2017 16:16:17	86099-1.RAW	4:16:17 PM	32.88				14.9	0.108	0.108	ng/L	

TotalMercury EPA1631
 Operat BC
 BlankSi 18.018
 Calib Eqn:
 Conc = (Area-18.01
 Run Date: 9/27/2017
 Blank SD: 2.213895011
 Worksh THg2600
 CalibFa 137.14
 Status:
 QC Warnings:9/QC E
 Run Time: 13:52:38
 Blank RSD%: 12.28716466
 Method ##### R: 0.9999
 R²: 0.9998
 CF SD: 6.42200056
 CF RSD%: 4.682830435
 Descrip THg26002-170927-1

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppb)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ref)	Flags	RunCount
Clean				0.00	6.94					85983-1.RAW	8:06:03	951.47	Clean	OK	1
clean				0.00	0.03					85984-1.RAW	8:08:55	4.32	Clean	OK	1
ws				18.02	0.00					85985-1.RAW	8:13:03	11.36	Sample	OK	1
ws				18.02	0.00					85986-1.RAW	8:17:11	9.64	Sample	OK	1
ws				18.02	0.00					85987-1.RAW	8:21:20	8.11	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.12					85988-1.RAW	8:25:28	16.83	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.12					85989-1.RAW	8:29:37	16.65	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.15					85990-1.RAW	8:33:45	20.57	Sample	OK	1
SEQ-CAL1	A4		1	18.02	0.53			106.55		85991-1.RAW	8:37:54	91.08	Sample	OK	1
SEQ-CAL2	A5		1	18.02	1.02			101.85		85992-1.RAW	8:42:02	157.70	Sample	OK	1
SEQ-CAL3	A6		1	18.02	5.01			100.28		85993-1.RAW	8:46:10	705.66	Sample	OK	1
SEQ-CAL4	A7		1	18.02	19.39			96.97		85994-1.RAW	8:50:19	2677.69	Sample	OK	1
SEQ-CAL5	A8		1	18.02	37.74			94.34		85995-1.RAW	8:54:27	5193.00	Sample	OK	1
SEQ-ICV1	A9		1	18.02	5.04			100.79		85996-1.RAW	8:58:36	709.16	Sample	OK	1
F709409-BLK1	A10		20	18.02	7.70					85997-2.RAW	9:05:51	70.82	Sample	OK	1
F709409-BLK2	A11		20	18.02	0.75					85998-1.RAW	9:10:00	23.15	Sample	OK	1
F709409-BLK3	A12		20	18.02	0.37					85999-1.RAW	9:14:08	20.57	Sample	OK	1
*F709409-BLK4	A13		20	18.02	0.39					86000-1.RAW	9:18:17	20.67	Sample	OK	1
*F709409-BLK5	A14		20	18.02	0.89					86001-1.RAW	9:22:25	24.12	Sample	OK	1
F709409-BS1	A15		20	18.02	100.62					86002-1.RAW	9:26:33	707.99	Sample	OK	1
F709409-BSD1	A16		20	18.02	97.85					86003-1.RAW	9:30:42	888.98	Sample	OK	1
F709409-BS2	A17		400	18.02	2055.25					86004-1.RAW	9:34:50	722.86	Sample	OK	1
1709489-01	A18		100	18.02	521.96					86005-1.RAW	9:38:59	733.83	Sample	OK	1
1709489-02	A19		100	18.02	422.27					86006-1.RAW	9:43:07	597.17	Sample	OK	1
SEQ-CCV1	A20		1	18.02	4.83			96.58		86007-1.RAW	9:47:15	680.27	Sample	OK	1
SEQ-CCB1	A21		1	18.02	0.06			0.00		86008-1.RAW	9:51:24	26.14	Sample	OK	1
1709489-03	B1		100	18.02	573.70					86009-1.RAW	9:55:32	804.78	Sample	OK	1
1709489-04	B2		100	18.02	635.11					86010-1.RAW	9:59:41	889.00	Sample	OK	1
1709489-05	B3		100	18.02	486.10					86011-1.RAW	10:03:49	684.65	Sample	OK	1
1709489-06	B4		100	18.02	477.24					86012-1.RAW	10:07:58	672.50	Sample	OK	1
1709489-07	B5		100	18.02	856.72					86013-1.RAW	10:12:06	1192.92	Sample	OK	1
1709489-08	B6		100	18.02	585.83					86014-1.RAW	10:16:14	821.42	Sample	OK	1
1709489-09	B7		100	18.02	399.60					86015-1.RAW	10:20:23	566.03	Sample	OK	1
1709489-10	B8		100	18.02	436.63					86016-1.RAW	10:24:31	616.80	Sample	OK	1
1709489-11	B9		100	18.02	684.36					86017-1.RAW	10:28:40	956.55	Sample	OK	1
1709489-12	B10		100	18.02	490.70					86018-1.RAW	10:32:48	690.96	Sample	OK	1
SEQ-CCV2	B11		1	18.02	4.91			98.21		86019-1.RAW	10:36:56	691.42	Sample	OK	1
SEQ-CCB2	B12		1	18.02	0.11			0.00		86020-1.RAW	10:41:05	32.56	Sample	OK	1
1709489-13	B13		100	18.02	485.46					86021-1.RAW	10:45:13	683.78	Sample	OK	1
1709489-14	B14		100	18.02	913.95					86022-1.RAW	10:49:22	1271.40	Sample	OK	1
1709489-15	B15		100	18.02	548.06					86023-1.RAW	10:53:30	769.62	Sample	OK	1
1709489-16	B16		100	18.02	452.67					86024-1.RAW	10:57:39	638.80	Sample	OK	1
1709489-17	B17		100	18.02	502.48					86025-1.RAW	11:01:47	707.12	Sample	OK	1
1709489-18	B18		100	18.02	612.97					86026-1.RAW	11:05:55	858.64	Sample	OK	1

1709489-19	B19	100	18.02	625.69		86027-1.RAW	11:10:04	878.08	Sample	OK	1
1709489-20	B20	100	18.02	529.98		86028-1.RAW	11:14:12	744.82	Sample	OK	1
F709409-DUP1	B21	100	18.02	573.65		86029-1.RAW	11:18:21	804.72	Sample	OK	1
F709409-MS1	C1	400	18.02	5507.03	958.33	86030-1.RAW	11:22:29	1906.09	Sample	OK	1
SEQ-CCV3	C2	1	18.02	5.06	101.16	86031-1.RAW	11:26:38	711.66	Sample	OK	1
SEQ-CCB3	C3	1	18.02	0.09	0.00	86032-1.RAW	11:30:46	31.03	Sample	OK	1
F709409-MSD1	C4	400	18.02	5446.40		86033-1.RAW	11:34:54	1885.31	Sample	OK	1
F709409-MS2	C5	400	18.02	5464.86	100.30	86034-1.RAW	11:39:03	1891.64	Sample	OK	1
F709409-MSD2	C6	400	18.02	5728.45		86035-1.RAW	11:43:11	1982.01	Sample	OK	1
F709410-BLK1	C7	20	18.02	5.10		86036-1.RAW	11:47:20	52.98	Sample	OK	1
F709410-BLK2	C8	20	18.02	3.28		86037-1.RAW	11:51:28	40.52	Sample	OK	1
F709410-BLK3	C9	20	18.02	1.25		86038-1.RAW	11:55:36	26.56	Sample	OK	1
*F709410-BLK4	C10	20	18.02	7.34		86039-1.RAW	11:59:45	68.34	Sample	OK	1
*F709410-BLK5	C11	20	18.02	0.82		86040-1.RAW	12:03:53	23.64	Sample	OK	1
F709410-BS1	C12	20	18.02	100.30		86041-1.RAW	12:08:02	705.79	Sample	OK	1
F709410-BSD1	C13	20	18.02	104.04		86042-1.RAW	12:12:10	731.45	Sample	OK	1
SEQ-CCV4	C14	1	18.02	4.99	99.70	86043-1.RAW	12:16:19	701.69	Sample	OK	1
SEQ-CCB4	C15	1	18.02	0.15	0.00	86044-1.RAW	12:20:27	37.96	Sample	OK	1
F709410-BS2	C16	400	18.02	2130.78		86045-1.RAW	12:24:35	748.55	Sample	OK	1
1709490-01	C17	100	18.02	2010.87		86046-1.RAW	12:28:44	2775.72	Sample	OK	1
1709490-02	C18	100	18.02	2036.13		86047-1.RAW	12:32:52	2813.09	Sample	OK	1
1709490-03	C19	100	18.02	5218.27		86048-1.RAW	12:37:01	7174.32	Sample	FB	1
1709490-04	C20	100	18.02	3234.65		86049-1.RAW	12:41:09	4454.00	Sample	OK	1
1709490-05	C21	100	18.02	2871.80		86050-1.RAW	12:45:18	3956.38	Sample	FB	1
1709490-06	A1	100	18.02	3490.85		86051-1.RAW	12:49:26	4805.34	Sample	OK	1
1709490-07	A2	100	18.02	3102.38		86052-1.RAW	12:53:34	4272.59	Sample	OK	1
1709490-08	A3	100	18.02	2861.42		86053-1.RAW	12:57:43	3942.15	Sample	OK	1
1709490-09	A4	100	18.02	7664.44		86054-1.RAW	13:01:51	10528.98	Sample	OK	1
SEQ-CCV5	A5	1	18.02	6.22	124.48	86055-1.RAW	13:05:59	871.57	Sample	OK	1
SEQ-CCB5	A6	1	18.02	0.40	0.00	86056-2.RAW	13:10:33	73.48	Sample	OK	1
SEQ-CCV6	A19	1	18.02	5.13	102.59	86057-1.RAW	13:14:41	721.47	Sample	OK	1
SEQ-CCV7	A20	1	18.02	5.27	105.43	86058-1.RAW	13:18:50	740.98	Sample	OK	1
SEQ-CCB6	A21	1	18.02	0.26	0.00	86059-1.RAW	13:22:59	53.13	Sample	OK	1
1709490-10	A7	100	18.02	5165.50		86060-1.RAW	13:27:07	7101.95	Sample	FB	1
1709490-11	A8	100	18.02	3097.27		86061-1.RAW	13:31:16	4265.59	Sample	OK	1
1709490-12	A9	100	18.02	11865.79		86062-1.RAW	13:35:25	16290.66	Sample	OK	1
CLEAN			0.00	1.48		86064-1.RAW	13:47:50	202.68	Clear	OK	1
WS			18.02	0.31		86065-1.RAW	13:51:59	60.70	Sample	OK	1
CLEAN			0.00	0.13		86066-1.RAW	13:55:30	17.99	Clear	OK	1
WS			18.02	0.17		86067-1.RAW	13:59:39	40.76	Sample	OK	1
1709490-13	A10	400	18.02	2079.20		86063-3.RAW	14:03:47	730.87	Sample	OK	1
1709490-14	A11	400	18.02	2079.55		86068-1.RAW	14:07:56	730.99	Sample	OK	1
1709490-15	A12	400	18.02	3998.89		86069-1.RAW	14:12:04	1389.03	Sample	OK	1
1709490-16	A13	400	18.02	4730.26		86070-1.RAW	14:16:12	1639.78	Sample	OK	1
1709490-17	A14	400	18.02	6524.53		86071-1.RAW	14:20:21	2254.94	Sample	OK	1
1709490-18	A15	400	18.02	1513.87		86072-1.RAW	14:24:29	537.05	Sample	OK	1
1709490-19	A16	400	18.02	1572.30		86073-1.RAW	14:28:38	557.08	Sample	OK	1
SEQ-CCV8	A17	1	18.02	5.17	103.46	86074-1.RAW	14:32:46	727.46	Sample	OK	1
SEQ-CCB7	A18	1	18.02	0.17	0.00	86075-1.RAW	14:36:55	40.71	Sample	OK	1

1709490-20	B1	400	18.02	2743.80		86076-1.RAW	14:41:03	956.73	Sample	OK	1
1709490-03RE1	B2	400	18.02	5340.49		86077-1.RAW	14:45:11	1849.00	Sample	OK	1
1709490-04RE1	B3	400	18.02	3234.34		86078-1.RAW	14:49:20	1126.90	Sample	OK	1
1709490-09RE1	B4	400	18.02	8095.14		86079-1.RAW	14:53:28	2793.42	Sample	OK	1
1709490-10RE1	B5	400	18.02	5471.47		86080-1.RAW	14:57:37	1893.90	Sample	OK	1
1709490-11RE1	B6	400	18.02	3074.82		86081-1.RAW	15:01:45	1072.21	Sample	OK	1
1709490-12RE1	B7	400	18.02	12403.66		86082-1.RAW	15:05:53	4270.59	Sample	OK	1
F709410-DUP1	B8	100	18.02	2112.45		86083-1.RAW	15:10:02	2915.02	Sample	FB	1
F709410-MS1	B9	400	18.02	6805.02	321.99	86084-1.RAW	15:14:10	2351.11	Sample	OK	1
F709410-MSD1	B10	400	18.02	7215.91		86085-1.RAW	15:18:19	2491.98	Sample	OK	1
SEQ-CCV9	B11	1	18.02	5.57	111.34	86086-1.RAW	15:22:27	781.45	Sample	OK	1
SEQ-CCB8	B12	1	18.02	0.26	0.00	86087-1.RAW	15:26:36	53.93	Sample	OK	1
F709410-MS2	B13	400	18.02	8000.99	353737.52	86088-1.RAW	15:30:44	2761.14	Sample	OK	1
F709410-MSD2	B14	400	18.02	8218.82		86089-1.RAW	15:34:52	2835.83	Sample	OK	1
F709433-BLK1	B15	20	18.02	6.70		86090-1.RAW	15:39:01	63.98	Sample	OK	1
F709433-BLK2	B16	20	18.02	2.96		86091-1.RAW	15:43:09	38.32	Sample	OK	1
F709433-BLK3	B17	20	18.02	2.00		86092-1.RAW	15:47:18	31.72	Sample	OK	1
F709433-BS1	B18	20	18.02	105.76		86093-1.RAW	15:51:26	743.22	Sample	OK	1
F709433-BS2	B19	20	18.02	102.99		86094-1.RAW	15:55:34	724.21	Sample	OK	1
F709433-BS3	B20	20	18.02	106.07		86095-1.RAW	15:59:43	745.34	Sample	OK	1
F709433-BS4	B21	20	18.02	101.38		86096-1.RAW	16:03:51	713.15	Sample	OK	1
1709874-01	C1	20	18.02	2.99		86097-1.RAW	16:08:00	38.50	Sample	OK	1
SEQ-CCVA	C2	1	18.02	5.18		86098-1.RAW	16:12:08	728.86	Sample	OK	1
SEQ-CCB9	C3	1	18.02	0.11	0.00	86099-1.RAW	16:16:17	32.88	Sample	OK	1

ANALYSIS SEQUENCE

7128009



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 9/27/2017

Lah Number	Analysis	Order	STD ID	ISTD ID	Comments
7128009-IBL1	QC	1			
7128009-IBL2	QC	2			
7128009-IBL3	QC	3			
7128009-CAL1	QC	4	1704505		
7128009-CAL2	QC	5	1704506		
7128009-CAL3	QC	6	1704507		
7128009-CAL4	QC	7	1704508		
7128009-CAL5	QC	8	1704509		
7128009-ICV1	QC	9	1705628		
F709409-BLK1	QC	10			
F709409-BLK2	QC	11			
F709409-BLK3	QC	12			
F709409-BLK4	QC	13			
F709409-BLK5	QC	14			
F709409-BS1	QC	15			
F709409-BSD1	QC	16			
F709409-BS2	QC	17			
1709489-01	Hg-CVAFS-T-7030	18			
1709489-02	Hg-CVAFS-T-7030	19			
7128009-CCV1	QC	20	1705628		
7128009-CCB1	QC	21			
1709489-03	Hg-CVAFS-T-7030	22			
1709489-04	Hg-CVAFS-T-7030	23			
1709489-05	Hg-CVAFS-T-7030	24			
1709489-06	Hg-CVAFS-T-7030	25			
1709489-07	Hg-CVAFS-T-7030	26			
1709489-08	Hg-CVAFS-T-7030	27			
1709489-09	Hg-CVAFS-T-7030	28			
1709489-10	Hg-CVAFS-T-7030	29			
1709489-11	Hg-CVAFS-T-7030	30			
1709489-12	Hg-CVAFS-T-7030	31			
7128009-CCV2	QC	32	1705628		
7128009-CCB2	QC	33			
1709489-13	Hg-CVAFS-T-7030	34			
1709489-14	Hg-CVAFS-T-7030	35			

Due Date: 10/17/2017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 9/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709489-15	Hg-CVAFS-T-7030	36			
1709489-16	Hg-CVAFS-T-7030	37			
1709489-17	Hg-CVAFS-T-7030	38			
1709489-18	Hg-CVAFS-T-7030	39			
1709489-19	Hg-CVAFS-T-7030	40			
1709489-20	Hg-CVAFS-T-7030	41			
F709409-DUPI	QC	42			
F709409-MS1	QC	43			
7128009-CCV3	QC	44	1705628		
7128009-CCB3	QC	45			
F709409-MSD1	QC	46			
F709409-MS2	QC	47			
F709409-MSD2	QC	48			
F709410-BLK1	QC	49			
F709410-BLK2	QC	50			
F709410-BLK3	QC	51			
F709410-BLK4	QC	52			
F709410-BLK5	QC	53			
F709410-BS1	QC	54			
F709410-BSD1	QC	55			
7128009-CCV4	QC	56	1705628		
7128009-CCB4	QC	57			
F709410-BS2	QC	58			
1709490-01	Hg-CVAFS-T-7030	59			
1709490-02	Hg-CVAFS-T-7030	60			
1709490-03	Hg-CVAFS-T-7030	61			
1709490-04	Hg-CVAFS-T-7030	62			
1709490-05	Hg-CVAFS-T-7030	63			
1709490-06	Hg-CVAFS-T-7030	64			
1709490-07	Hg-CVAFS-T-7030	65			
1709490-08	Hg-CVAFS-T-7030	66			
1709490-09	Hg-CVAFS-T-7030	67			
7128009-CCV5	QC	68	1705628		
7128009-CCB5	QC	69			
7128009-CCV6	QC	70	1705628		

Due Date: 10/17/2017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 9/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7128009-CCV7	QC	71	1705628		
7128009-CCB6	QC	72			
1709490-10	Hg-CVAFS-T-7030	73			
1709490-11	Hg-CVAFS-T-7030	74			
1709490-12	Hg-CVAFS-T-7030	75			
1709490-13	Hg-CVAFS-T-7030	76			
1709490-14	Hg-CVAFS-T-7030	77			
1709490-15	Hg-CVAFS-T-7030	78			
1709490-16	Hg-CVAFS-T-7030	79			
1709490-17	Hg-CVAFS-T-7030	80			
1709490-18	Hg-CVAFS-T-7030	81			
1709490-19	Hg-CVAFS-T-7030	82			
7128009-CCV8	QC	83	1705628		
7128009-CCB7	QC	84			
1709490-20	Hg-CVAFS-T-7030	85			
1709490-03RE1	Hg-CVAFS-T-7030	86			Added 9/28/2017 by BC
1709490-04RE1	Hg-CVAFS-T-7030	87			Added 9/28/2017 by BC
1709490-09RE1	Hg-CVAFS-T-7030	88			Added 9/28/2017 by BC
1709490-10RE1	Hg-CVAFS-T-7030	89			Added 9/28/2017 by BC
1709490-11RE1	Hg-CVAFS-T-7030	90			Added 9/28/2017 by BC
1709490-12RE1	Hg-CVAFS-T-7030	91			Added 9/28/2017 by BC
F709410-DUP1	QC	92			
F709410-MS1	QC	93			
F709410-MSD1	QC	94			
7128009-CCV9	QC	95	1705628		
7128009-CCB8	QC	96			
F709410-MS2	QC	97			
F709410-MSD2	QC	98			
F709433-BLK1	QC	99			
F709433-BLK2	QC	100			
F709433-BLK3	QC	101			
F709433-BS1	QC	102			
F709433-BS2	QC	103			
F709433-BS3	QC	104			
F709433-BS4	QC	105			

Due Date: 10/17/2017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 9/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709674-01	Hg-CVAFS-T-7030	106			
7I28009-CCVA	QC	107	1705628		
7I28009-CCB9	QC	108			

Becis 9/28/17

Samples Loaded By

Date

(Ondra 9/27/17)

Becis 9/28/17

Data Processed By

Date

Failing Data Report - 7128009

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1709490-03	Hg-CVAFS-T-7030	397	3.81				ng/g						FAIL-OVER	PASS	E
1709490-09	Hg-CVAFS-T-7030	542	3.54				ng/g						FAIL-OVER	PASS	E
1709490-10	Hg-CVAFS-T-7030	364	3.53				ng/g						FAIL-OVER	PASS	E
1709490-12	Hg-CVAFS-T-7030	885	3.73				ng/g						FAIL-OVER	PASS	E
7128009-CCV5	Hg-CVAFS-T-7030	6.224	1.000			5.0000	ng/L	124	77.00	123.00			PASS-OVER	FAIL-CCV	re run

Becis 9/28/17
 Analyst Reviewed By Date

Don Motem 9/28/17
 Peer Reviewed By Date

PREPARATION BENCH SHEET

F709409

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	μ l Spike1	Spike2 ID	μ l Spike2	Extraction Comments
F709409-BLK1	Blank	0.5	40					
F709409-BLK2	Blank	0.5	40					
F709409-BLK3	Blank	0.5	40					
F709409-BLK4	Pre homog blank	0.516	40					Blanks for 1709489
F709409-BLK5	Post homog blank	0.54	40					Blanks for 1709489
F709409-BS1	LCS	0.5	40	1704421	40			
F709409-BS2	DORM4	0.253	40	1703305	253			
F709409-BSD1	LCS Dup	0.5	40	1704421	40			
F709409-DUP1	Duplicate [1709489-01]	0.52	40					
F709409-MS1	Matrix Spike [1709489-01]	0.546	40	1705554	200			
F709409-MS2	Matrix Spike [1709489-11]	0.556	40	1705554	200			
F709409-MSD1	Matrix Spike Dup [1709489-01]	0.563	40	1705554	200			
F709409-MSD2	Matrix Spike Dup [1709489-11]	0.549	40	1705554	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1.000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704516	THg Washstation (0.5% BrCl)	
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1705552	3% SnCl ₂ THg reductant	05-Mar-18 00:00
			1705602	70/30 Digestion Acid	17-Mar-18 00:00
			1705742	5% BrCl	22-Jan-18 00:00

PREPARATION BENCH SHEET

F709409

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709489-01	FBJR_17LT024_091417_LOB_01_TA	0.534	40	QC	-	-	MD/MS/MSD	
1709489-02	FBJR_17LT024_091417_LOB_02_TA	0.582	40	-	-	-		
1709489-03	FBJR_17LT024_091417_LOB_03_TA	0.563	40	-	-	-		
1709489-04	FBJR_17LT024_091417_LOB_04_TA	0.557	40	-	-	-		
1709489-05	FBJR_17LT025_091417_LOB_05_TA	0.515	40	-	-	-		
1709489-06	FBJR_17LT025_091417_LOB_06_TA	0.539	40	-	-	-		
1709489-07	FBJR_17LT026_091417_LOB_07_TA	0.594	40	-	-	-		
1709489-08	FBJR_17LT026_091417_LOB_08_TA	0.505	40	-	-	-		
1709489-09	FBJR_17LT026_091417_LOB_09_TA	0.591	40	-	-	-		
1709489-10	FBJR_17LT026_091417_LOB_10_TA	0.508	40	-	-	-		
1709489-11	FBJR_17LT027_091417_LOB_11_TA	0.581	40	QC	-	-	MS/MSD	
1709489-12	FBJR_17LT027_091417_LOB_12_TA	0.508	40	-	-	-		
1709489-13	FBJR_17LT027_091417_LOB_13_TA	0.544	40	-	-	-		
1709489-14	FBJR_17LT027_091417_LOB_14_TA	0.562	40	-	-	-		
1709489-15	FBJR_17LT027_091417_LOB_15_TA	0.573	40	-	-	-		
1709489-16	FBJR_17LT027_091417_LOB_16_TA	0.508	40	-	-	-		
1709489-17	FBJR_17LT027_091417_LOB_17_TA	0.51	40	-	-	-		
1709489-18	FBJR_17LT028_091417_LOB_18_TA	0.564	40	-	-	-		
1709489-19	FBJR_17LT028_091417_LOB_19_TA	0.569	40	-	-	-		

PREPARATION BENCH SHEET

F709409

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

1709489-20	FBJR_17LT028_091417_LOB_20_TA	0.585	40	-	-	-		
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PREPARATION BENCH SHEET

F709410

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709410-BLK1	Blank	0.5	40					
F709410-BLK2	Blank	0.5	40					
F709410-BLK3	Blank	0.5	40					
F709410-BLK4	Pre homog blank	0.539	40					
F709410-BLK5	Post homog blank	0.542	40					
F709410-BS1	LCS	0.5	40	1704421	40			
F709410-BS2	DORM4	0.253	40	1703305	253			
F709410-BSD1	LCS Dup	0.5	40	1704421	40			
F709410-DUP1	Duplicate [1709490-01]	0.537	40					
F709410-MS1	Matrix Spike [1709490-01]	0.519	40	1705554	200			
F709410-MS2	Matrix Spike [1709490-11]	0.585	40	1705554	200			
F709410-MSD1	Matrix Spike Dup [1709490-01]	0.552	40	1705554	200			
F709410-MSD2	Matrix Spike Dup [1709490-11]	0.572	40	1705554	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704516	THg Washstation (0.5% BrCl)	
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1705552	3% SnCl2 THg reductant	05-Mar-18 00:00
			1705602	70/30 Digestion Acid	17-Mar-18 00:00
			1705742	5% BrCl	22-Jan-18 00:00

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709410

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709490-01	CJ_17LT001_091317_LOB_01_TA	0.523	40	QC	-	-	MD/MS/MSD	
1709490-02	CJ_17LT001_091317_LOB_02_TA	0.545	40	-	-	-		
1709490-03	CJ_17LT001_091317_LOB_03_TA	0.525	40	-	-	-		
1709490-03RE1	CJ_17LT001_091317_LOB_03_TA	0.525	40	-	-	-	Added 9/28/2017 by BC	Added 9/28/2017 by BC
1709490-04	CJ_17LT001_091317_LOB_04_TA	0.56	40	-	-	-		
1709490-04RE1	CJ_17LT001_091317_LOB_04_TA	0.56	40	-	-	-	Added 9/28/2017 by BC	Added 9/28/2017 by BC
1709490-05	CJ_17LT001_091317_LOB_05_TA	0.541	40	-	-	-		
1709490-06	CJ_17LT002_091317_LOB_06_TA	0.523	40	-	-	-		
1709490-07	CJ_17LT002_091317_LOB_07_TA	0.575	40	-	-	-		
1709490-08	CJ_17LT003_091317_LOB_08_TA	0.591	40	-	-	-		
1709490-09	CJ_17LT003_091317_LOB_09_TA	0.565	40	-	-	-		
1709490-09RE1	CJ_17LT003_091317_LOB_09_TA	0.565	40	-	-	-	Added 9/28/2017 by BC	Added 9/28/2017 by BC
1709490-10	CJ_17LT003_091317_LOB_10_TA	0.567	40	-	-	-		
1709490-10RE1	CJ_17LT003_091317_LOB_10_TA	0.567	40	-	-	-	Added 9/28/2017 by BC	Added 9/28/2017 by BC
1709490-11	CJ_17LT004_091317_LOB_11_TA	0.536	40	QC	-	-	MS/MSD	
1709490-11RE1	CJ_17LT004_091317_LOB_11_TA	0.536	40	QC	-	-	MS/MSD Added 9/28/2017 by BC	Added 9/28/2017 by BC
1709490-12	CJ_17LT004_091317_LOB_12_TA	0.536	40	-	-	-		
1709490-12RE1	CJ_17LT004_091317_LOB_12_TA	0.536	40	-	-	-	Added 9/28/2017 by BC	Added 9/28/2017 by BC
1709490-13	CJ_17LT048_091517_LOB_13_TA	0.55	40	-	-	-		

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709410

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

1709490-14	CJ_17LT048_091517_LOB_14_TA	0.553	40	-	-	-		
1709490-15	CJ_17LT047_091517_LOB_15_TA	0.55	40	-	-	-		
1709490-16	CJ_17LT047_091517_LOB_16_TA	0.528	40	-	-	-		
1709490-17	CI_17LT047_091517_LOB_17_TA	0.571	40	-	-	-		
1709490-18	CI_17LT047_091517_LOB_18_TA	0.531	40	-	-	-		
1709490-19	CJ_17LT044_091517_LOB_19_TA	0.524	40	-	-	-		
1709490-20	CJ_17LT044_091517_LOB_20_TA	0.6	40	-	-	-		

PREPARATION BENCH SHEET

F709433

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709433-BLK1	Blank	0.5	40					
F709433-BLK2	Blank	0.5	40					
F709433-BLK3	Blank	0.5	40					
F709433-BS1	LCS	0.5	40	1704421	40			
F709433-BS2	LCS	0.5	40	1704421	40			
F709433-BS3	LCS	0.5	40	1704421	40			
F709433-BS4	LCS	0.5	40	1704421	40			

<u>Standard ID(s):</u> 1704421	<u>Description:</u> THg 100ng/mL Primary Spiking Standard	<u>Expiration:</u> 21-Oct-17 00:00	<u>Reagent ID(s):</u> 1703183 1704516 1704517 1705552 1705602 1705777	<u>Description:</u> THg Washstation (0.5% BrCl) THg Dilute 1% BrCl 3% SnCl2 THg reductant 70/30 Digestion Acid 5% BrCl	<u>Expiration:</u> 24-Nov-17 00:00 18-Dec-17 00:00 05-Mar-18 00:00 17-Mar-18 00:00 22-Jan-18 00:00
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PREPARATION BENCH SHEET

F709433

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709674-01	BC 70:30 Digest DOC	0.5	40	-	-	-		

PREPARATION BENCH SHEET

2600-2
 BSC 9/27/17

F709409

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709409-BLK1	Blank	0.5	40					2.5 mL
F709409-BLK2	Blank	0.5	40					2.5 mL
F709409-BLK3	Blank	0.5	40					2.5 mL
F709409-BLK4	Pre homog blank	0.516	40					Blanks for 1709489 2.5 mL
F709409-BLK5	Post homog blank	0.54	40					Blanks for 1709489 2.5 mL
F709409-BS1	LCS	0.5	40	1704421	40			2.5 mL
F709409-BS2	DORM4	0.253	40	1703305	253			125 mL
F709409-BSD1	LCS Dup	0.5	40	1704421	40			2.5 mL
F709409-DUP1	Duplicate [1709489-01]	0.52	40					500 mL
F709409-MS1	Matrix Spike [1709489-01]	0.546	40	1705554	200			125 mL
F709409-MS2	Matrix Spike [1709489-11]	0.556	40	1705554	200			125 mL
F709409-MSD1	Matrix Spike Dup [1709489-01]	0.563	40	1705554	200			125 mL
F709409-MSD2	Matrix Spike Dup [1709489-11]	0.549	40	1705554	200			125 mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1705003	Sodium Borohydride Solution	18-Aug-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705742	5% BrCl	22-Jan-18 00:00

2.5 mL = 20X
 125 mL = 400X
 500 mL = 100X

1704517
 1704516
 1705552
 1703182

Due Date: 10/17/2017

PREPARATION BENCH SHEET

1600-2
BC 9/27/17

F709409

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709489-01	FBJR_17LT024_091417_LOB_01_TA	0.534	40	QC	-	-	MD/MS/MSD 100x 500uL	
1709489-02	FBJR_17LT024_091417_LOB_02_TA	0.582	40	-	-	-	100x 500uL	
1709489-03	FBJR_17LT024_091417_LOB_03_TA	0.563	40	-	-	-	500uL	
1709489-04	FBJR_17LT024_091417_LOB_04_TA	0.557	40	-	-	-	500uL	
1709489-05	FBJR_17LT025_091417_LOB_05_TA	0.515	40	-	-	-	500uL	
1709489-06	FBJR_17LT025_091417_LOB_06_TA	0.539	40	-	-	-	500uL	
1709489-07	FBJR_17LT026_091417_LOB_07_TA	0.594	40	-	-	-	500uL	
1709489-08	FBJR_17LT026_091417_LOB_08_TA	0.505	40	-	-	-	500uL	
1709489-09	FBJR_17LT026_091417_LOB_09_TA	0.591	40	-	-	-	500uL	
1709489-10	FBJR_17LT026_091417_LOB_10_TA	0.508	40	-	-	-	500uL	
1709489-11	FBJR_17LT027_091417_LOB_11_TA	0.581	40	QC	-	-	MS/MSD 500uL	
1709489-12	FBJR_17LT027_091417_LOB_12_TA	0.508	40	-	-	-	500uL	
1709489-13	FBJR_17LT027_091417_LOB_13_TA	0.544	40	-	-	-	500uL	
1709489-14	FBJR_17LT027_091417_LOB_14_TA	0.562	40	-	-	-	500uL	
1709489-15	FBJR_17LT027_091417_LOB_15_TA	0.573	40	-	-	-	500uL	
1709489-16	FBJR_17LT027_091417_LOB_16_TA	0.508	40	-	-	-	500uL	
1709489-17	FBJR_17LT027_091417_LOB_17_TA	0.51	40	-	-	-	500uL	
1709489-18	FBJR_17LT028_091417_LOB_18_TA	0.564	40	-	-	-	500uL	
1709489-19	FBJR_17LT028_091417_LOB_19_TA	0.569	40	-	-	-	500uL	

Due Date: 10/17/2017

PREPARATION BENCH SHEET

2600-2

BCR/20/17

F709409

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

1709489-20	FBIR_17LT028_091417_LOB_20_TA	0.585	40	-	-	-	500u	
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Technician: AMB Batch#: F709409 Date: 9/25/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____
 Balance#: 0 Calibrated? Yes No Therm.#: 13698 Vial Type: Glass Teflon
 Calibrated? Yes No
 *Time in: 2025 Actual Temp. (raw): 78.0 °C w/ CF: 78.0 °C
 Time out: 2225 Actual Temp. (raw): timer °C w/ CF: timer °C
 *Time in can't begin before target temperature is reached

Final vol.: 40 mL (LIMS ID: 1705742) Spike vol.: 200 µL (LIMS ID: 1705554)
 Spike Witness: DM 9/25/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0U07852 Calibration Date: 9/20/17
 HNO₃ LIMS ID: N/A Pipette SN#: _____ Calibration Date: _____
 70/30 LIMS ID: 1705062 (1705602 w/ CF) Dispenser #: 02K*27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: AMB 9-25-17
 Glass Vial # 00068138 Boiling Chip lot # 1702551 *Hotblock Position: N2

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F709409-BLK1	0.573	23	F709409-MS2	0.556	BS2 =
2	F709409-BLK2	0.501	24	F709409-MSD2	0.549	DORMA
3	F709409-BLK3	0.542	25	1709489-12	0.508	1703305 w/ CF 1702551
4	F709409-BS1	0.525	26	1709489-13	0.544	Comments
5	F709409-BSD1	0.570	27	1709489-14	0.562	
6	F709409-BS2	0.2523	28	1709489-15	0.573	BLK 4 + BLKS:
7	F709409-BLK4	0.516	29	1709489-16	0.508	PRE + POST
8	F709409-BLK5	0.540	30	1709489-17	0.510	HOMOGEN. BLANKS
9	1709489-01	0.534	31	1709489-18	0.564	FOR 1709489
10	F709409-DUP	0.520	32	1709489-19	0.569	DUP1, MS1, MSD1:
11	F709409-MS1	0.546	33	1709489-20	0.585	1709489-01
12	F709409-MSD1	0.563	34			MS2, MSD2:
13	1709489-02	0.582	35			1709489-11
14	1709489-03	0.563	36			
15	1709489-04	0.557	37			BS1/BSD1 spiked
16	1709489-05	0.515	38			with 40 mL of
17	1709489-06	0.539	39			100ng/mL,
18	1709489-07	0.594	40			LIMS ID:
19	1709489-08	0.505	41			1704421
20	1709489-09	0.591	42			AMB 9/25/17
21	1709489-10	0.508	43			
22	1709489-11	0.581	44			

PREPARATION BENCH SHEET

2600-2
BC 9/27/17

F709410

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709410-BLK1	Blank	0.5	40					2.5mL
F709410-BLK2	Blank	0.5	40					2.5mL
F709410-BLK3	Blank	0.5	40					2.5mL
F709410-BLK4	Pre homog blank	0.539	40					2.5mL
F709410-BLK5	Post homog blank	0.542	40					2.5mL
F709410-BS1	LCS	0.5	40	1704421	40			2.5mL
F709410-BS2	DORM4	0.253	40	1703305	253			12.5mL
F709410-BSD1	LCS Dup	0.5	40	1704421	40			2.5mL
F709410-DUP1	Duplicate [1709490-01]	0.537	40					500mL
F709410-MS1	Matrix Spike [1709490-01]	0.519	40	1705554	200			12.5mL
F709410-MS2	Matrix Spike [1709490-11]	0.585	40	1705554	200			12.5mL
F709410-MSD1	Matrix Spike Dup [1709490-01]	0.552	40	1705554	200			12.5mL
F709410-MSD2	Matrix Spike Dup [1709490-11]	0.572	40	1705554	200			12.5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	1Hg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1705602	70/30 Digestion Acid	17-Mar-18 00:00
1705554	1Hg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705742	5% BrCl	22-Jan-18 00:00

2.5 mL = 20x
12.5mL = 400x
500mL = 100x

1705552
1704517
1704516
1703102

PREPARATION BENCH SHEET

2600-2
BL 9/27/17

F709410

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709490-01	CJ_17LT001_091317_LOB_01_TA	0.523	40	QC	-	-	MD/MS/MSD 500uL	
1709490-02	CJ_17LT001_091317_LOB_02_TA	0.545	40	-	-	-	500uL	
1709490-03	CJ_17LT001_091317_LOB_03_TA	0.525	40	-	-	-	500uL → 125uL	
1709490-04	CJ_17LT001_091317_LOB_04_TA	0.56	40	-	-	-	500uL → 125uL	
1709490-05	CJ_17LT001_091317_LOB_05_TA	0.541	40	-	-	-	500uL	
1709490-06	CJ_17LT002_091317_LOB_06_TA	0.523	40	-	-	-	500uL	
1709490-07	CJ_17LT002_091317_LOB_07_TA	0.575	40	-	-	-	500uL	
1709490-08	CJ_17LT003_091317_LOB_08_TA	0.591	40	-	-	-	500uL	
1709490-09	CJ_17LT003_091317_LOB_09_TA	0.565	40	-	-	-	500uL → 125uL	
1709490-10	CJ_17LT003_091317_LOB_10_TA	0.567	40	-	-	-	500uL → 125uL	
1709490-11	CJ_17LT004_091317_LOB_11_TA	0.536	40	QC	-	-	MS/MSD 500uL → 125uL	
1709490-12	CJ_17LT004_091317_LOB_12_TA	0.536	40	-	-	-	500uL → 125uL	
1709490-13	CJ_17LT048_091517_LOB_13_TA	0.55	40	-	-	-	125uL 500uL	
1709490-14	CJ_17LT048_091517_LOB_14_TA	0.553	40	-	-	-	5-125uL 500uL	
1709490-15	CJ_17LT047_091517_LOB_15_TA	0.55	40	-	-	-	125uL 500uL	
1709490-16	CJ_17LT047_091517_LOB_16_TA	0.528	40	-	-	-	125uL 500uL	
1709490-17	CJ_17LT047_091517_LOB_17_TA	0.571	40	-	-	-	125uL 500uL	
1709490-18	CJ_17LT047_091517_LOB_18_TA	0.531	40	-	-	-	125uL 500uL	
1709490-19	CJ_17LT044_091517_LOB_19_TA	0.524	40	-	-	-	125uL 500uL	

Due Date: 10/17/2017

PREPARATION BENCH SHEET

2600-2
BC 9/27/17

F709410

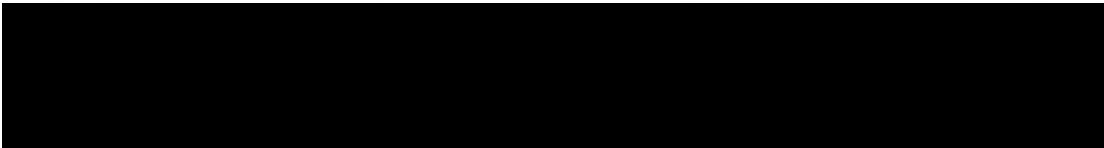
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

1709490-20	CJ_17LT044_091517_LOB_20_1A	0.6	40	-	-	-	125 _{uv}	
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Technician: AMB Batch#: F709410 Date: 9-25-17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6 Calibrated? Yes No Therm. #: 13698 Calibrated? Yes No

*Time in: 2025 Actual Temp. (raw): 78.0 °C w/ CF: 78.0 °C

Time out: 2225 Actual Temp. (raw): timer °C w/ CF: timer °C

*Time in can't begin before target temperature is reached

Final vol.: 40 mL (LIMS ID: 1705748) Spike vol.: 200 µL (LIMS ID: 1705554)
 Spike Witness: DM 9/25/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0407852 Calibration Date: 9-20-17
 HNO₃ LIMS ID: N/A Pipette SN#: _____ Calibration Date: _____
 70/30 LIMS ID: 1705062 (705602 w/CF) Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: _____
 Glass Vial # 00068138 Boiling Chip lot # 1702551 *Hotblock Position: N2

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F709410-BLK1	0.546	23	F709410-MS2	0.585	BS2 ^c
2	F709410-BLK2	0.501	24	F709410-MSD	0.572	DORMA
3	F709410-BLK3	0.515	25	1709490-12	0.536	1703305
4	F709410-BSI	0.504	26	1709490-13	0.550	Comments
5	F709410-BSD3	0.530	27	1709490-13A	0.553	BLK4 + BLK5:
6	F709410-BLK4	0.539	28	1709490-15	0.550	PRE+POST
7	F709410-BLK5	0.542	29	1709490-16	0.528	Homogen.
8	F709410-BS2	0.253	30	1709490-17	0.571	blanks
9	1709490-01	0.523	31	1709490-18	0.531	DUP1, MS1, MSD1:
10	F709410-DUP1	0.537	32	1709490-19	0.524	1709490-01
11	F709410-MS1	0.519	33	1709490-20	0.600	MS2, MSD2:
12	F709410-MSD1	0.552	34			1709490-11
13	1709490-02	0.545	35			
14	1709490-03	0.525	36			
15	1709490-04	0.560	37			
16	1709490-05	0.541	38			
17	1709490-06	0.523	39			
18	1709490-07	0.575	40			
19	1709490-08	0.591	41			
20	1709490-09	0.565	42			
21	1709490-10	0.567	43			
22	1709490-11	0.536	44			

AMB 9/25/17

BSI, BSD1
 spiked with
 40µl of 100ng/ml
 LIMS:
 1704421
 AMB 9/25/17

PREPARATION BENCH SHEET

2600-2
BL 9/27/17

F709433

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709433-BLK1	Blank	0.5	40					2.5ml
F709433-BLK2	Blank	0.5	40					2.5ml
F709433-BLK3	Blank	0.5	40					2.5ml
F709433-BS1	LCS	0.5	40	1704421	40			2.5ml
F709433-BS2	LCS	0.5	40	1704421	40			2.5ml
F709433-BS3	LCS	0.5	40	1704421	40			2.5ml
F709433-BS4	LCS	0.5	40	1704421	40			2.5ml

<u>Standard ID(s):</u> 1704421	<u>Description:</u> THg 100ng/ml Primary Spiking Standard	<u>Expiration:</u> 21-Oct-17 00:00	<u>Reagent ID(s):</u> 1705602 1705777	<u>Description:</u> 70/30 Digestion Acid 5% BrCl	<u>Expiration:</u> 17-Mar-18 00:00 22-Jan-18 00:00
-----------------------------------	--	---------------------------------------	---	--	--

2.5ml = 20x

1704516
1704517
1705552
1703103

PREPARATION BENCH SHEET

2600-2
BC 9/27/17

F709433

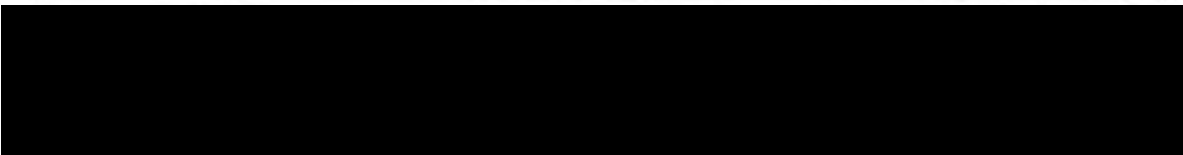
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709674-01	BC 70:30 Digest DOC	0.5	40	-	-	-	2.5 ml	



Technician: BC Batch#: F709433 Date: 9/26/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6 Calibrated? Yes No Therm.#: 15 14845 Calibrated? Yes No

Time in: 11:30 Actual Temp. (raw): 78.2 °C w/ CF: 78.3 °C
 Time out: 11:35 Actual Temp. (raw): 75.0 °C w/ CF: 75.1 °C

*Time in can't begin before target temperature is reached

Final vol.: 40 mL (LIMS ID: 1705777) Spike vol.: 40 µL (LIMS ID: 1704421)
 Spike Witness: DM 9/26/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: MU11619 Calibration Date: 9-26-17
 HNO₃ LIMS ID: NA Pipette SN#: NA Calibration Date: NA
 70/30 LIMS ID: 1705602 Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: NA Dispenser #: 15406623 Q58
 Glass Vial # 00066592 Boiling Chip lot # 1702551 *Hotblock Position: M4

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F709433-BW	0.514	23			
2	F709433-BK2	0.512	24			
3	F709433-BK3	0.569	25			
4	F709433-BS1	0.579	26			
5	F709433-BS2	0.503	27			
6	F709433-BS3	0.544	28			
7	F709433-BS4	0.525	29			
8	1709674-01	0.514	30			1704674-01 Should generate vial as B/W
9			31			
10			32			
11			33			
12			34			
13			35			
14			36			
15			37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7128009
Reviewer: 0	Dataset ID(s): THg26002-170927-1
Date: 9/28/2017	WO (s) #: Various
Batch #(s): F709409, F709410, F709433	0

Analyst Initials BC Reviewer Initials DM

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF ($\leq 15\%$) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | |
| Comments: <u>Samples off curve. CCV failed due to preceding sample being off curve</u> | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7128009
Reviewer:	D	Dataset ID(s):	THg26002-170927-1
Date:	9/28/2017	WO (s) #:	Various
Batch #(s):	F709409, F709410, F709433		0

Analyst Initials BC

Reviewer Initials DM

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
- Files located at:** \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs
- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/27/2017 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 5/9/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 5/9/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709490

PO#

C012505850

October 7, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709490

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October 7, 2017

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Total Pages – 83



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 12:09

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CJ_17LT001_091317_LOB_01_TA	1709490-01	Tissue	13-Sep-17 13:26	19-Sep-17 09:35
CJ_17LT001_091317_LOB_02_TA	1709490-02	Tissue	13-Sep-17 13:26	19-Sep-17 09:35
CJ_17LT001_091317_LOB_03_TA	1709490-03	Tissue	13-Sep-17 13:26	19-Sep-17 09:35
CJ_17LT001_091317_LOB_04_TA	1709490-04	Tissue	13-Sep-17 13:26	19-Sep-17 09:35
CJ_17LT001_091317_LOB_05_TA	1709490-05	Tissue	13-Sep-17 13:26	19-Sep-17 09:35
CJ_17LT002_091317_LOB_06_TA	1709490-06	Tissue	13-Sep-17 13:36	19-Sep-17 09:35
CJ_17LT002_091317_LOB_07_TA	1709490-07	Tissue	13-Sep-17 13:36	19-Sep-17 09:35
CJ_17LT003_091317_LOB_08_TA	1709490-08	Tissue	13-Sep-17 13:41	19-Sep-17 09:35
CJ_17LT003_091317_LOB_09_TA	1709490-09	Tissue	13-Sep-17 13:41	19-Sep-17 09:35
CJ_17LT003_091317_LOB_10_TA	1709490-10	Tissue	13-Sep-17 13:41	19-Sep-17 09:35
CJ_17LT004_091317_LOB_11_TA	1709490-11	Tissue	13-Sep-17 13:58	19-Sep-17 09:35
CJ_17LT004_091317_LOB_12_TA	1709490-12	Tissue	13-Sep-17 13:58	19-Sep-17 09:35
CJ_17LT048_091517_LOB_13_TA	1709490-13	Tissue	15-Sep-17 08:17	19-Sep-17 09:35
CJ_17LT048_091517_LOB_14_TA	1709490-14	Tissue	15-Sep-17 08:17	19-Sep-17 09:35
CJ_17LT047_091517_LOB_15_TA	1709490-15	Tissue	15-Sep-17 08:24	19-Sep-17 09:35
CJ_17LT047_091517_LOB_16_TA	1709490-16	Tissue	15-Sep-17 08:24	19-Sep-17 09:35
CJ_17LT047_091517_LOB_17_TA	1709490-17	Tissue	15-Sep-17 08:24	19-Sep-17 09:35
CJ_17LT047_091517_LOB_18_TA	1709490-18	Tissue	15-Sep-17 08:24	19-Sep-17 09:35
CJ_17LT044_091517_LOB_19_TA	1709490-19	Tissue	15-Sep-17 08:32	19-Sep-17 09:35
CJ_17LT044_091517_LOB_20_TA	1709490-20	Tissue	15-Sep-17 08:32	19-Sep-17 09:35

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 12:09

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/19/2017 9:35:00 AM . The samples were received intact, on-ice within nine sealed coolers at -12.7, -24.7, -15.2, -16.8, -12.1, -20.0, -17.3, -16.4, and -30.2 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

The samples were processed following the work instructions provided by the client; EFSR-P-SP-WI11646. All of the samples were defrosted and the tails were then removed from the lobster. The shell was removed, and the meat was weighed, de-veined, and then homogenized before sample prep.

Total solids analysis was performed in accordance with method SM2540B.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B.

The samples were prepped in batch F710238 for % moisture and batch F709418 for total solids. The tail mass was measured in batch F709421.

The samples were prepped in batch F709410 and analyzed in sequence 7I28009 for total Mercury.

Per client request samples 1709490-01 and 1709490-11 were used as the source QC in these batches F710238, F709418, and F709410.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 12:09

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

Client: AMEC Foster Wheeler

Date & Time Received: 9/19/17 9:35

Date Labeled: 9/20/17 Labeled By: AE

Project: _____

Received By: LM

Label Verified By: LM

of Coolers Received: 9 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y N Temp Blank Used: Y N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>Y</u>	

on 9/19/17

TID: 170404186	CF: 70.1 °C	Date/time: 9/19/17 9:40	By: LM
Cooler 1: -12.80°C	CF: -12.70°C	Cooler 4: -16.86°C	w/ CF: -16.76°C
Cooler 2: -24.80°C	w/ CF: -24.70°C	Cooler 5: -12.20°C	w/ CF: -12.10°C
Cooler 3: -15.31°C	w/ CF: -15.21°C	Cooler 6: -20.10°C	w/ CF: -20.00°C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>N/A</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>N</u>	

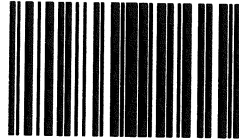
Cooler 7: -17.43°C / CF: -17.33°C 8: -16.49°C / CF: -16.39°C 9: -30.26°C / CF: -30.16°C

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>N/A</u>	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4802	2: 7877 6903 7261
3: 7877 6903 7272	4: 7877 6903 7283
5: 7877 6903 7294	6: 7877 6903 7309
7: 7877 6903 7310	8: 7877 6903 7320
9: 7877 6903 7331	

1709490





AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
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CJ_17LT001_091317_LOB_01_TA
1709490-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	704	1.96	17.5	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	154	0.428	3.82	ng/g	100	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	78.2	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	21.8	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	83.4	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	



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Reported:
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CJ_17LT001_091317_LOB_02_TA
1709490-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	879	2.42	21.6	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	149	0.411	3.67	ng/g	100	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	83.0	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.0	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	111	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	



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Reported:
07-Oct-17 12:09

CJ_17LT001_091317_LOB_03_TA
1709490-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	2310	9.70	86.6	ng/g dry	400	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	407	1.71	15.2	ng/g	400	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.4	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.6	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	138	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	

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CJ_17LT001_091317_LOB_04_TA
1709490-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1300	8.99	80.3	ng/g dry	400	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	231	1.60	14.3	ng/g	400	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.2	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.8	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	143	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	



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Reported:
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CJ_17LT001_091317_LOB_05_TA
1709490-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1070	2.08	18.6	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	212	0.414	3.70	ng/g	100	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.1	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.9	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	198	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	



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Reported:
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CJ_17LT002_091317_LOB_06_TA
1709490-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1370	2.21	19.7	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	267	0.428	3.82	ng/g	100	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.6	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.4	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	69.4	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	

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CJ_17LT002_091317_LOB_07_TA
1709490-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1150	2.08	18.6	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	216	0.390	3.48	ng/g	100	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.3	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.7	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	130	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	

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Reported:
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CJ_17LT003_091317_LOB_08_TA
1709490-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1190	2.34	20.9	ng/g dry	100	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	193	0.379	3.38	ng/g	100	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	83.8	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	16.2	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	106	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	



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CJ_17LT003_091317_LOB_09_TA
1709490-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	3150	8.71	77.8	ng/g dry	400	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	573	1.59	14.2	ng/g	400	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.8	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.2	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	143	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	



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CJ_17LT003_091317_LOB_10_TA
1709490-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	2160	8.83	78.8	ng/g dry	400	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	386	1.58	14.1	ng/g	400	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.1	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.9	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	152	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	



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CJ_17LT004_091317_LOB_11_TA
1709490-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1230	8.94	79.8	ng/g dry	400	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	229	1.67	14.9	ng/g	400	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.3	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.7	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	77.9	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	



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CJ_17LT004_091317_LOB_12_TA
1709490-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	4150	7.50	66.9	ng/g dry	400	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	925	1.67	14.9	ng/g	400	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	77.7	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	22.3	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	141	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	



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Reported:
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CJ_17LT048_091517_LOB_13_TA
1709490-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	790	8.53	76.2	ng/g dry	400	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	151	1.63	14.5	ng/g	400	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.9	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.1	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	105	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	

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CJ_17LT048_091517_LOB_14_TA
1709490-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	712	7.68	68.6	ng/g dry	400	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	150	1.62	14.5	ng/g	400	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	78.9	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	21.1	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	101	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	

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07-Oct-17 12:09

CJ_17LT047_091517_LOB_15_TA
1709490-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1640	9.20	82.2	ng/g dry	400	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	291	1.63	14.5	ng/g	400	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.3	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.7	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	152	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	

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Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 12:09

CJ_17LT047_091517_LOB_16_TA
1709490-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	2070	9.81	87.6	ng/g dry	400	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	358	1.70	15.2	ng/g	400	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.7	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.3	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	126	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 12:09

CJ_17LT047_091517_LOB_17_TA
1709490-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	2380	8.17	73.0	ng/g dry	400	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	457	1.57	14.0	ng/g	400	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.8	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.2	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	132	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 12:09

CJ_17LT047_091517_LOB_18_TA
1709490-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	694	10.3	91.9	ng/g dry	400	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	114	1.69	15.1	ng/g	400	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	83.6	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	16.4	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	85.9	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 12:09

CJ_17LT044_091517_LOB_19_TA
1709490-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	624	8.91	79.5	ng/g dry	400	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	120	1.71	15.3	ng/g	400	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.8	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.2	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	104	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 12:09

CJ_17LT044_091517_LOB_20_TA
1709490-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	947	7.74	69.1	ng/g dry	400	[CALC]	25-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	183	1.49	13.3	ng/g	400	F709410	25-Sep-17	7128009	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.7	0.1	0.1	% by Weight	1	F710238	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.3	0.1	0.1	% by Weight	1	F709418	25-Sep-17		26-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	95.8	0.10	0.10	g	1	F709421	25-Sep-17		25-Sep-17	None	

AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 07-Oct-17 12:09
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7I28009 - F709409											
Cal Standard (7I28009-CAL1) Prepared & Analyzed: 27-Sep-17											
Mercury	0.533	-		ng/L	0.50100		106				
Cal Standard (7I28009-CAL2) Prepared & Analyzed: 27-Sep-17											
Mercury	1.019	-		ng/L	1.0020		102				
Cal Standard (7I28009-CAL3) Prepared & Analyzed: 27-Sep-17											
Mercury	5.014	-		ng/L	5.0100		100				
Cal Standard (7I28009-CAL4) Prepared & Analyzed: 27-Sep-17											
Mercury	19.39	-		ng/L	20.040		96.8				
Cal Standard (7I28009-CAL5) Prepared & Analyzed: 27-Sep-17											
Mercury	37.74	-		ng/L	40.080		94.1				
Calibration Blank (7I28009-CCB1) Prepared & Analyzed: 27-Sep-17											
Mercury	0.059	-		ng/L							
Calibration Blank (7I28009-CCB2) Prepared & Analyzed: 27-Sep-17											
Mercury	0.106	-		ng/L							
Calibration Blank (7I28009-CCB3) Prepared & Analyzed: 27-Sep-17											
Mercury	0.095	-		ng/L							
Calibration Blank (7I28009-CCB4) Prepared & Analyzed: 27-Sep-17											
Mercury	0.145	-		ng/L							
Calibration Blank (7I28009-CCB5) Prepared & Analyzed: 27-Sep-17											
Mercury	0.404	-		ng/L							

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 07-Oct-17 12:09
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7I28009 - F709409											
Calibration Blank (7I28009-CCB6) Prepared & Analyzed: 27-Sep-17											
Mercury	0.256	-		ng/L							
Calibration Blank (7I28009-CCB7) Prepared & Analyzed: 27-Sep-17											
Mercury	0.165	-		ng/L							
Calibration Blank (7I28009-CCB8) Prepared & Analyzed: 27-Sep-17											
Mercury	0.262	-		ng/L							
Calibration Blank (7I28009-CCB9) Prepared & Analyzed: 27-Sep-17											
Mercury	0.108	-		ng/L							
Calibration Check (7I28009-CCV1) Prepared & Analyzed: 27-Sep-17											
Mercury	4.829	-		ng/L	5.0000		96.6	77-123			
Calibration Check (7I28009-CCV2) Prepared & Analyzed: 27-Sep-17											
Mercury	4.910	-		ng/L	5.0000		98.2	77-123			
Calibration Check (7I28009-CCV3) Prepared & Analyzed: 27-Sep-17											
Mercury	5.058	-		ng/L	5.0000		101	77-123			
Calibration Check (7I28009-CCV4) Prepared & Analyzed: 27-Sep-17											
Mercury	4.985	-		ng/L	5.0000		99.7	77-123			
Calibration Check (7I28009-CCV6) Prepared & Analyzed: 27-Sep-17											
Mercury	5.129	-		ng/L	5.0000		103	77-123			
Calibration Check (7I28009-CCV7) Prepared & Analyzed: 27-Sep-17											
Mercury	5.272	-		ng/L	5.0000		105	77-123			

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 07-Oct-17 12:09
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7I28009 - F709409

Calibration Check (7I28009-CCV8) Prepared & Analyzed: 27-Sep-17

Mercury	5.173	-		ng/L	5.0000		103	77-123			
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Calibration Check (7I28009-CCV9) Prepared & Analyzed: 27-Sep-17

Mercury	5.567	-		ng/L	5.0000		111	77-123			
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Calibration Check (7I28009-CCVA) Prepared & Analyzed: 27-Sep-17

Mercury	5.183	-		ng/L	5.0000		104	77-123			
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Instrument Blank (7I28009-IBL1) Prepared & Analyzed: 27-Sep-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7I28009-IBL2) Prepared & Analyzed: 27-Sep-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7I28009-IBL3) Prepared & Analyzed: 27-Sep-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7I28009-ICV1) Prepared & Analyzed: 27-Sep-17

Mercury	5.040	-		ng/L	5.0000		101	79-121			
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Batch F709410 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F709410-BLK1) Prepared: 25-Sep-17 Analyzed: 27-Sep-17

Mercury	0.408	0.090	0.800	ng/g							J
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Blank (F709410-BLK2) Prepared: 25-Sep-17 Analyzed: 27-Sep-17

Mercury	0.263	0.090	0.800	ng/g							J
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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 07-Oct-17 12:09
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F709410 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F709410-BLK3)											
Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	0.100	0.090	0.800	ng/g							J
Blank (F709410-BLK4)											
Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	0.307	0.083	0.742	ng/g							F-03, J
Blank (F709410-BLK5)											
Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	ND	0.083	0.738	ng/g							F-03, U
LCS (F709410-BS1)											
Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	7.768	0.090	0.800	ng/g	8.0160		96.9	75-125			
LCS (F709410-BS2)											
Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	336.4	3.54	31.6	ng/g	382.50		87.9	75-125			
LCS Dup (F709410-BSD1)											
Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	8.067	0.090	0.800	ng/g	8.0160		101	75-125	3.78	24	
Duplicate (F709410-DUP1)											
Source: 1709490-01 Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	157.1	0.417	3.72	ng/g		153.6			2.29	24	
Matrix Spike (F709410-MS1)											
Source: 1709490-01 Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	524.2	1.73	15.4	ng/g	385.36	153.6	96.2	71-125			
Matrix Spike (F709410-MS2)											
Source: 1709490-11 Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	546.9	1.53	13.7	ng/g	341.88	230.9	92.4	71-125			
Matrix Spike Dup (F709410-MSD1)											
Source: 1709490-01 Prepared: 25-Sep-17 Analyzed: 27-Sep-17											
Mercury	522.7	1.62	14.5	ng/g	362.32	153.6	102	71-125	5.74	24	



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 07-Oct-17 12:09
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F709410 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F709410-MSD2)		Source: 1709490-11				Prepared: 25-Sep-17	Analyzed: 27-Sep-17				
Mercury	574.5	1.57	14.0	ng/g	349.65	230.9	98.3	71-125	6.14	24	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 07-Oct-17 12:09
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F709418 - EFGS-019 Solids Analysis

Duplicate (F709418-DUP1)		Source: 1709490-01			Prepared: 25-Sep-17 Analyzed: 26-Sep-17						
% Solids	22.3	0.1	0.1	% by Weight		21.8			2.27	25	
Duplicate (F709418-DUP2)		Source: 1709490-11			Prepared: 25-Sep-17 Analyzed: 26-Sep-17						
% Solids	19.6	0.1	0.1	% by Weight		18.7			4.70	25	

Batch F710238 - EFGS-019 Solids Analysis

Duplicate (F710238-DUP1)		Source: 1709490-01			Prepared & Analyzed: 05-Oct-17						
% Moisture	77.7	0.1	0.1	% by Weight		78.2			0.641	10	O-04
Duplicate (F710238-DUP2)		Source: 1709490-11			Prepared & Analyzed: 05-Oct-17						
% Moisture	80.4	0.1	0.1	% by Weight		81.3			1.11	10	O-04

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
07-Oct-17 12:09

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- O-09 Total Solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction.
- O-04 This sample was analyzed outside of the recommended holding time.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference





Frontier Global Sciences

Total Solids Dataset Cover Page

Dataset ID: TS170925-4
Batch ID: F709418/F710238
Work Order(s): 1709490

Analyst: AMB
Prep. Date: 9/25/2017

Analytical Issues/Explanations:

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: m 10/5/17

Preparation Date: Sep 25, 2017

Batch #: 4

Analyst: AMB

Batch ID: F709418/F710238

Work Order(s): 1709490

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes	% Moisture
1	1709490-01	1.0060	6.8260	5.8200	2.2740	1.2680	21.8%		78.2%
2	1709490-01MD	1.0480	6.8080	5.7600	2.3330	1.2850	22.3%	2.4%	77.7%
3	1709490-02	1.0460	6.1340	5.0880	1.9090	0.8630	17.0%		83.0%
4	1709490-03	0.9890	6.1820	5.1930	1.9050	0.9160	17.6%		82.4%
5	1709490-04	1.0390	6.0690	5.0300	1.9360	0.8970	17.8%		82.2%
6	1709490-05	1.0460	6.6720	5.6260	2.1630	1.1170	19.9%		80.1%
7	1709490-06	1.0390	6.1190	5.0800	2.0220	0.9830	19.4%		80.6%
8	1709490-07	1.0010	6.3090	5.3080	1.9920	0.9910	18.7%		81.3%
9	1709490-08	1.0550	6.4720	5.4170	1.9350	0.8800	16.2%		83.8%
10	1709490-09	1.0280	6.6880	5.6600	2.0580	1.0300	18.2%		81.8%
11	1709490-10	1.0210	6.6830	5.6620	2.0320	1.0110	17.9%		82.1%
12	1709490-11	1.0100	6.1940	5.1840	1.9810	0.9710	18.7%		81.3%
13	1709490-11MD	0.9890	6.1300	5.1410	1.9980	1.0090	19.6%	4.7%	80.4%
14	1709490-12	0.9910	6.6820	5.6910	2.2600	1.2690	22.3%		77.7%
15	1709490-13	1.0390	6.6000	5.5610	2.1000	1.0610	19.1%		80.9%
16	1709490-14	0.9930	6.8150	5.8220	2.2240	1.2310	21.1%		78.9%
17	1709490-15	1.0170	6.3130	5.2960	1.9540	0.9370	17.7%		82.3%
18	1709490-16	0.9900	6.5390	5.5490	1.9490	0.9590	17.3%		82.7%
19	1709490-17	1.0230	6.1600	5.1370	2.0110	0.9880	19.2%		80.8%
20	1709490-18	1.0170	6.6920	5.6750	1.9460	0.9290	16.4%		83.6%
21	1709490-19	0.9970	6.5500	5.5530	2.0650	1.0680	19.2%		80.8%
22	1709490-20	1.0020	6.5630	5.5610	2.0770	1.0750	19.3%		80.7%

PREPARATION BENCH SHEET

F710238

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	μ l Spike1	Spike2 ID	μ l Spike2	Extraction Comments
F710238-DUP1	Duplicate [1709490-01]	5	5					
F710238-DUP2	Duplicate [1709490-11]	5	5					

Standard ID(s): Description:

Expiration:

PREPARATION BENCH SHEET

F710238

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709490-01	CJ_17LT001_091317_LOB_01_TA	5	5	QC	-	-	MD/MS/MSD	
1709490-02	CJ_17LT001_091317_LOB_02_TA	5	5	-	-	-		
1709490-03	CJ_17LT001_091317_LOB_03_TA	5	5	-	-	-		
1709490-04	CJ_17LT001_091317_LOB_04_TA	5	5	-	-	-		
1709490-05	CJ_17LT001_091317_LOB_05_TA	5	5	-	-	-		
1709490-06	CJ_17LT002_091317_LOB_06_TA	5	5	-	-	-		
1709490-07	CJ_17LT002_091317_LOB_07_TA	5	5	-	-	-		
1709490-08	CJ_17LT003_091317_LOB_08_TA	5	5	-	-	-		
1709490-09	CJ_17LT003_091317_LOB_09_TA	5	5	-	-	-		
1709490-10	CJ_17LT003_091317_LOB_10_TA	5	5	-	-	-		
1709490-11	CJ_17LT004_091317_LOB_11_TA	5	5	QC	-	-	MS/MSD	
1709490-12	CJ_17LT004_091317_LOB_12_TA	5	5	-	-	-		
1709490-13	CJ_17LT048_091517_LOB_13_TA	5	5	-	-	-		
1709490-14	CJ_17LT048_091517_LOB_14_TA	5	5	-	-	-		
1709490-15	CJ_17LT047_091517_LOB_15_TA	5	5	-	-	-		
1709490-16	CJ_17LT047_091517_LOB_16_TA	5	5	-	-	-		
1709490-17	CJ_17LT047_091517_LOB_17_TA	5	5	-	-	-		
1709490-18	CJ_17LT047_091517_LOB_18_TA	5	5	-	-	-		
1709490-19	CJ_17LT044_091517_LOB_19_TA	5	5	-	-	-		

PREPARATION BENCH SHEET

F710238

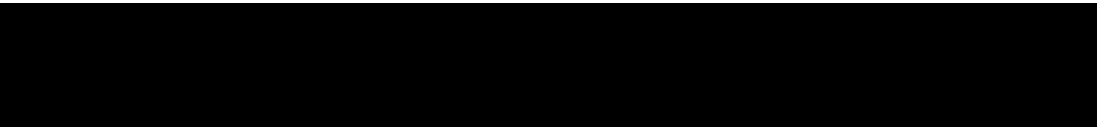
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

1709490-20	CJ_17LT044_091517_LOB_20_TA	5	5	-	-	-		
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Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: CWF, DH

Date: 9/29/17

Reviewer: DM

Date: 9/27/17

WO #: 1709490

Batch #: F709421

Dataset ID: F709421

Reviewer Initials: DM

General Comments/Re-run requirements:

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date	
<u>CWF</u>	<u>5/9/17</u>	<input checked="" type="checkbox"/>
<u>DH</u>	<u>12/13/16</u>	<input checked="" type="checkbox"/>

Reviewer Initials: DM

1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

<input type="checkbox"/> Density Only - NA this section			
<input checked="" type="checkbox"/> DONE			<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<u>W/A</u>	<input type="checkbox"/>
<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<u>W/A</u>	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<u>W/A</u>	<input type="checkbox"/>
		<input type="checkbox"/> N/A	<input type="checkbox"/>

2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
 - (v) Volume (if other than 1 mL): _____ Can the calculated result be reproduced?

<input checked="" type="checkbox"/> Total Solids Only - NA this section			
<input type="checkbox"/> DONE			<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
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<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/>

DM 9/27/17

PREPARATION BENCH SHEET

F709421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - No Preparation

Prepared: 9/25/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709490-01	CJ_17LT001_091317_LOB_01_TA	1	1	QC	-	-	MD/MS/MSD Total Mass of Lobster Ta	
1709490-02	CJ_17LT001_091317_LOB_02_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-03	CJ_17LT001_091317_LOB_03_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-04	CJ_17LT001_091317_LOB_04_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-05	CJ_17LT001_091317_LOB_05_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-06	CJ_17LT002_091317_LOB_06_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-07	CJ_17LT002_091317_LOB_07_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-08	CJ_17LT003_091317_LOB_08_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-09	CJ_17LT003_091317_LOB_09_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-10	CJ_17LT003_091317_LOB_10_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-11	CJ_17LT004_091317_LOB_11_TA	1	1	QC	-	-	MS/MSD Total Mass of Lobster Tail M	
1709490-12	CJ_17LT004_091317_LOB_12_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-13	CJ_17LT048_091517_LOB_13_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-14	CJ_17LT048_091517_LOB_14_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-15	CJ_17LT047_091517_LOB_15_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-16	CJ_17LT047_091517_LOB_16_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-17	CJ_17LT047_091517_LOB_17_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-18	CJ_17LT047_091517_LOB_18_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709490-19	CJ_17LT044_091517_LOB_19_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709421

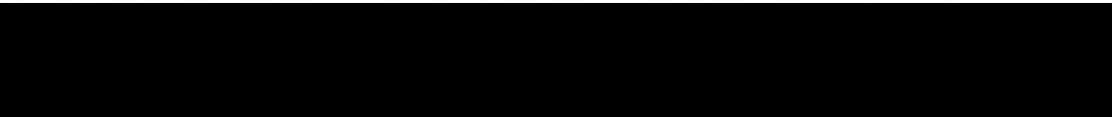
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - No Preparation

Prepared: 9/25/2017

1709490-20	CJ_17LT044_091517_LOB_20_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
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AmecFW Maine Lobster Special Project 2017- Lobster Homogenization Logbook

Work Order NUMBER	Tech Initials	Date	Thawed Y/ N	Balance ID	Tail Weight (g)	Tail de-veined Y/ N	Blender Type 1 = Robot Co upe 2 = Magic Bullet 3= Other	% Lipids Subsample taken Y/N	Comments
1709489-19	AMB	9/21/17	Y	18	68.54	Y	2	Y	
1709489-20	AMB	9/21/17	Y	18	100.87	Y	2	Y	
1709490-01	DH	9/22/17	Y	18	83.41	Y	2	Y	
1709490-02	DH	9/22/17	Y	18	110.56	Y	2	Y	
1709490-03	DH	9/22/17	Y	18	137.90	Y	2	Y	
1709490-04	DH	9/22/17	Y	18	143.40	Y	2	Y	
1709490-05	DH	9/22/17	Y	18	198.36	Y	2	Y	
1709490-06	DH	9/22/17	Y	18	69.36	Y	2	Y	
1709490-07	DH	9/22/17	Y	18	130.43	Y	2	Y	
1709490-08	DM	9-22-17	Y	18	105.07	Y	2	Y	
1709490-09	DM	9/22/17	Y	18	142.60	Y	2	Y	
1709490-10	DM	9/22/17	Y	18	152.23	Y	2	Y	
1709490-11	DH	9/22/17	Y	18	97.87	Y	2	Y	
1709490-12	DH	9/22/17	Y	18	140.72	Y	2	Y	
1709490-13	DH	9/22/17	Y	18	105.46	Y	2	Y	
1709490-14	DH	9/22/17	Y	18	100.55	Y	2	Y	
1709491-04	DM	9/21/17	Y	18	184.11	Y	2	Y	
1709490-15	DH	9/22/17	Y	18	151.98	Y	2	Y	1709490-15 9/22/17

9/22/17 n4

AmecFW Maine Lobster Special Project 2017- Lobster Homogenization Logbook

Work Order NUMBER	Tech Initials	Date	Thawed Y/ N	Balance ID	Tail Weight (g)	Tail de-veined Y/ N	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	% Lipids Subsample taken Y/N	Comments
1709491-05	DM	9/22/17	Y	18	102.76	Y	2	Y	
1709490-16	DH	9/22/17	Y	18	125.95	Y	2	Y	
1709491-06	DM	9/22/17	Y	2	131.68	Y	2	Y	
1709490-17	DH	9/22/17	Y	18	132.35	Y	2	Y	
1709491-07	DM	9/24/17	Y	18	140.51	Y	2	Y	
1709490-18	DH	9/22/17	Y	18	85.90	Y	2	Y	
1709492-01	DM	9/22/17	Y	18	83.59	Y	2	Y	
1709490-19	DH	9/22/17	Y	18	104.42	Y	2	Y	1709490-19 9/22/17
1709492-02	AMB	9/22/17	Y	2	144.08	Y	2	Y	
1709490-20	DH	9/22/17	Y	2	95.76	Y	2	Y	
1709492-03	AMB	9/22/17	Y	2	113.22	Y	2	Y	
1709492-04	DM	9/22/17	Y	DM 9/22/17 2 18	72.48	Y	2	Y	
1709491-01	PL	9/22/17	Y	18	124.46	Y	2	Y	
1709492-05	DM	9/22/17	Y	18	106.55	Y	2	Y	
1709491-02	PL	9/22/17	Y	18	153.83	Y	2	Y	
1709492-06	DM	9/22/17	Y	18	135.68	Y	2	Y	
1709491-03	PL	9/22/17	Y	18	102.57	Y	2	Y	
1709492-07	DM	9/22/17	Y	18	156.22	Y	2	Y	



Frontier Global Sci

Total Solids Dataset Cover Page

Dataset ID: TS170925-4
Batch ID: F709418
Work Order(s): 1709490

Analyst: AMB
Prep. Date: 9/25/2017

Analytical Issues/Explanations:

QUALITY ASSURANCE
PEER-REVIEWED
INITIALS: DM 9/28/17

Preparation Date: Sep 25, 2017

Batch #: 4

Analyst: AMB

Batch ID: F709418

Work Order(s): 1709490

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes
1	1709490-01	1.0060	6.8260	5.8200	2.2740	1.2580	21.8%	
2	1709490-01MD	1.0480	6.8080	5.7600	2.3330	1.2850	22.3%	2.4%
3	1709490-02	1.0460	6.1340	5.0880	1.9090	0.8630	17.0%	
4	1709490-03	0.9890	6.1820	5.1930	1.9050	0.9160	17.6%	
5	1709490-04	1.0390	6.0690	5.0300	1.9360	0.8970	17.8%	
6	1709490-05	1.0460	6.6720	5.6260	2.1630	1.1170	19.9%	
7	1709490-06	1.0390	6.1190	5.0800	2.0220	0.9830	19.4%	
8	1709490-07	1.0010	6.3090	5.3080	1.9920	0.9910	18.7%	
9	1709490-08	1.0550	6.4720	5.4170	1.9350	0.8800	16.2%	
10	1709490-09	1.0280	6.6880	5.6600	2.0580	1.0300	18.2%	
11	1709490-10	1.0210	6.6830	5.6620	2.0320	1.0110	17.9%	
12	1709490-11	1.0100	6.1540	5.1840	1.9810	0.9710	18.7%	
13	1709490-11MD	0.9890	6.1300	5.1410	1.9980	1.0090	19.6%	4.7%
14	1709490-12	0.9910	6.6820	5.6910	2.2600	1.2690	22.3%	
15	1709490-13	1.0390	6.6000	5.5610	2.1000	1.0610	19.1%	
16	1709490-14	0.9930	6.8150	5.8220	2.2240	1.2310	21.1%	
17	1709490-15	1.0170	6.3130	5.2960	1.9540	0.9370	17.7%	
18	1709490-16	0.9900	6.5390	5.5490	1.9490	0.9590	17.3%	
19	1709490-17	1.0230	6.1600	5.1370	2.0110	0.9880	19.2%	
20	1709490-18	1.0170	6.6920	5.6750	1.9460	0.9290	16.4%	
21	1709490-19	0.9970	6.5500	5.5530	2.0650	1.0680	19.2%	
22	1709490-20	1.0020	6.5630	5.5610	2.0770	1.0750	19.3%	

Remote Lab Total Solids Logbook

F709418

Lab Technician(s): AMB Batch: F709418 Date: 9-25-17 Page 1 of 1

Thermometer #: 20405136TI Oven #: DVN-01 Actual temperature: 103.1 (Range 103-105°C)

Balance #¹: 6 Start time: 2030 End time²: 11:50 Time re-weighed³: 12:15

Client(s)/WO#: 1709490

Sample ID	Pan #	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Notes
F709418 ^{AMB 9-25-17} 1709490-01	B1	1.006	6.826	2.274	
F709418-DUP1	B2	1.048	6.808	2.333	Source: 1709490-01
1709490-02	B3	1.046 1.010	6.134	1.909	
1709490-03	B4	0.989	6.182	1.905	
1709490-04	B5	1.039	6.069	1.936	
1709490-05	B6	1.046	6.672	2.163	
1709490-06	B7	1.039	6.119	2.022	
1709490-07	B8	1.001	6.309	1.992	
1709490-08	B9	1.055	6.472	1.935	
1709490-09	B10	1.028	6.688	2.058	
1709490-10	B11	1.021	6.683	2.032	
1709490-11	B12	1.010	6.194	1.981	
F709418-DUP2	B13	0.989	6.130	1.998	Source: 1709490-11
1709490-12	B14	0.991	6.682	2.260	
1709490-13	B15	1.039	6.600	2.100	
1709490-14	B16	0.993	6.815	2.224	
^{AMB 9-25-17} 1709490-15	B17	1.017	6.313	1.954	
1709490-16	B18	0.990	6.539	1.949	
1709490-17	B19	1.023	6.160	2.011	
1709490-18	B20	1.017	6.692	1.946	
1709490-19	B21	0.997	6.550	2.065	
1709490-20	B22	1.002	6.563	2.077	
AMB 9/25/17					

Comments:

¹The same balance must be used to weight samples before and after ovening.

²Samples must be ovened over 12 hours.

³Samples must be re-weighed within 30 minutes of oven cool down.

PREPARATION BENCH SHEET

F709418

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 9/25/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	μ l Spike1	Spike2 ID	μ l Spike2	Extraction Comments
F709418-DUP1	Duplicate [1709490-01]	5	5					
F709418-DUP2	Duplicate [1709490-11]	5	5					

Standard ID(s): Description:

Expiration:

PREPARATION BENCH SHEET

F709418

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 9/25/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709490-01	CJ_17LT001_091317_LOB_01_TA	5	5	QC	-	-	MD/MS/MSD	
1709490-02	CJ_17LT001_091317_LOB_02_TA	5	5	-	-	-		
1709490-03	CJ_17LT001_091317_LOB_03_TA	5	5	-	-	-		
1709490-04	CJ_17LT001_091317_LOB_04_TA	5	5	-	-	-		
1709490-05	CJ_17LT001_091317_LOB_05_TA	5	5	-	-	-		
1709490-06	CJ_17LT002_091317_LOB_06_TA	5	5	-	-	-		
1709490-07	CJ_17LT002_091317_LOB_07_TA	5	5	-	-	-		
1709490-08	CJ_17LT003_091317_LOB_08_TA	5	5	-	-	-		
1709490-09	CJ_17LT003_091317_LOB_09_TA	5	5	-	-	-		
1709490-10	CJ_17LT003_091317_LOB_10_TA	5	5	-	-	-		
1709490-11	CJ_17LT004_091317_LOB_11_TA	5	5	QC	-	-	MS/MSD	
1709490-12	CJ_17LT004_091317_LOB_12_TA	5	5	-	-	-		
1709490-13	CJ_17LT048_091517_LOB_13_TA	5	5	-	-	-		
1709490-14	CJ_17LT048_091517_LOB_14_TA	5	5	-	-	-		
1709490-15	CJ_17LT047_091517_LOB_15_TA	5	5	-	-	-		
1709490-16	CJ_17LT047_091517_LOB_16_TA	5	5	-	-	-		
1709490-17	CJ_17LT047_091517_LOB_17_TA	5	5	-	-	-		
1709490-18	CJ_17LT047_091517_LOB_18_TA	5	5	-	-	-		
1709490-19	CJ_17LT044_091517_LOB_19_TA	5	5	-	-	-		

PREPARATION BENCH SHEET

F709418

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 9/25/2017

1709490-20	CJ_17LT044_091517_LOB 20_TA	5	5	-	-	-		
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Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: AMB

Date: 9/26/17 Reviewer: DM

Date: 9/28/17

WO #: 1709490

Batch #: F709418

Dataset ID: TS170925-4

Reviewer Initials: DM

General Comments/Re-run requirements:

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials: AMB SOP Date: 6/2/16

Reviewer Initials: DM

1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

Density Only - NA this section

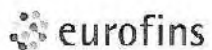
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<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>

2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
 - (v) Volume (if other than 1 mL): _____ Can the calculated result be reproduced?

Total Solids Only - NA this section

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<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
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<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input type="checkbox"/>



Frontier Global Sciences

THg26002-170927-1

Analysis Datasheet for Total Mercury

Date of Analysis: September 27, 2017

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7128009

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	91.08 units	182.16	73.06 units	146.13	106.6 %Rec
SEQ-CAL2	1	1.00 ng/L	157.70 units	157.70	139.68 units	139.68	101.9 %Rec
SEQ-CAL3	1	5.00 ng/L	705.65 units	141.13	687.64 units	137.53	100.3 %Rec
SEQ-CAL4	1	20.00 ng/L	2677.69 units	133.88	2659.67 units	132.98	97.0 %Rec
SEQ-CAL5	1	40.00 ng/L	5193.00 units	129.83	5174.98 units	129.37	94.3 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 137.14 +/- 6.42 4.7% RSD 148.94

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	18.02 units	±2.21	0.12 ng/l	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	2.941 ng/L	±1.127
BLK	2	3	3.209 ng/L	±1.928
BLK	3	3	3.888 ng/L	±2.485
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: DM 9/28/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hg2600-2	BC	CAL	SEQ-IBL1	1	9/27/2017 8:25:28	85988-1.RAW	8:25:28 AM	16.83			-1.2	-0.009	-0.009	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	9/27/2017 8:29:37	85989-1.RAW	8:29:37 AM	16.85			-1.4	-0.010	-0.010	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	9/27/2017 8:33:45	85990-1.RAW	8:33:45 AM	20.57			2.6	0.019	0.019	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	9/27/2017 8:37:54	85991-1.RAW	8:37:54 AM	91.08			73.1	0.533	0.533	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	9/27/2017 8:42:02	85992-1.RAW	8:42:02 AM	157.70			139.7	1.019	1.019	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	9/27/2017 8:46:10	85993-1.RAW	8:46:10 AM	705.56			687.6	5.014	5.014	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	9/27/2017 8:50:18	85994-1.RAW	8:50:18 AM	2677.89			2659.7	19.394	19.394	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	9/27/2017 8:54:27	85995-1.RAW	8:54:27 AM	5193.00			5175.0	37.735	37.735	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	9/27/2017 8:58:36	85996-1.RAW	8:58:36 AM	709.16			691.1	5.040	5.040	ng/L	
Hg2600-2	BC	BLK	F709409-BLK1	20	9/27/2017 9:05:51	85997-2.RAW	9:05:51 AM	70.82	1		52.8	0.385	7.701	ng/L	
Hg2600-2	BC	BLK	F709409-BLK2	20	9/27/2017 9:10:00	85998-1.RAW	9:10:00 AM	23.15	1		5.1	0.037	0.749	ng/L	
Hg2600-2	BC	BLK	F709409-BLK3	20	9/27/2017 9:14:08	85999-1.RAW	9:14:08 AM	20.57	1		2.6	0.019	0.372	ng/L	
Hg2600-2	BC	SAM	F709409-BLK4	20	9/27/2017 9:18:17	86000-1.RAW	9:18:17 AM	20.67	1		2.7	0.128	-2.554	ng/L	
Hg2600-2	BC	SAM	F709409-BLK5	20	9/27/2017 9:22:25	86001-1.RAW	9:22:25 AM	24.12	1		6.1	-0.103	-2.050	ng/L	
Hg2600-2	BC	SAM	F709409-BS1	20	9/27/2017 9:26:33	86002-1.RAW	9:26:33 AM	707.99	1		690.0	4.884	97.683	ng/L	
Hg2600-2	BC	SAM	F709409-BSD1	20	9/27/2017 9:30:42	86003-1.RAW	9:30:42 AM	688.99	1		671.0	4.746	94.911	ng/L	
Hg2600-2	BC	SAM	F709409-BS2	400	9/27/2017 9:34:50	86004-1.RAW	9:34:50 AM	722.68	1		704.5	5.131	2052.321	ng/L	
Hg2600-2	BC	SAM	1709489-C1	100	9/27/2017 9:38:59	86005-1.RAW	9:38:59 AM	733.83	1		715.8	5.190	519.020	ng/L	
Hg2600-2	BC	SAM	1709489-C2	100	9/27/2017 9:43:07	86006-1.RAW	9:43:07 AM	697.11	1		679.1	4.193	419.326	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	9/27/2017 9:47:15	86007-1.RAW	9:47:15 AM	680.27			662.3	4.829	4.829	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	9/27/2017 9:51:24	86008-1.RAW	9:51:24 AM	26.14			8.1	0.059	0.059	ng/L	
Hg2600-2	BC	SAM	1709489-C3	100	9/27/2017 9:55:32	86009-1.RAW	9:55:32 AM	804.78	1		786.8	5.208	570.756	ng/L	
Hg2600-2	BC	SAM	1709489-C4	100	9/27/2017 9:59:41	86010-1.RAW	9:59:41 AM	899.00	1		871.0	6.322	632.168	ng/L	
Hg2600-2	BC	SAM	1709489-C5	100	9/27/2017 10:03:49	86011-1.RAW	10:03:49 AM	884.65	1		866.5	4.832	483.159	ng/L	
Hg2600-2	BC	SAM	1709489-C6	100	9/27/2017 10:07:58	86012-1.RAW	10:07:58 AM	672.50	1		654.5	4.743	474.299	ng/L	
Hg2600-2	BC	SAM	1709489-C7	100	9/27/2017 10:12:06	86013-1.RAW	10:12:06 AM	1192.92	1		1174.9	6.538	853.781	ng/L	
Hg2600-2	BC	SAM	1709489-C8	100	9/27/2017 10:16:14	86014-1.RAW	10:16:14 AM	821.42	1		803.4	5.829	582.889	ng/L	
Hg2600-2	BC	SAM	1709489-C9	100	9/27/2017 10:20:23	86015-1.RAW	10:20:23 AM	588.03	1		548.0	3.967	396.663	ng/L	
Hg2600-2	BC	SAM	1709489-10	100	9/27/2017 10:24:31	86016-1.RAW	10:24:31 AM	616.60	1		598.8	4.337	433.683	ng/L	
Hg2600-2	BC	SAM	1709489-11	100	9/27/2017 10:28:40	86017-1.RAW	10:28:40 AM	956.55	1		938.5	6.814	681.424	ng/L	
Hg2600-2	BC	SAM	1709489-12	100	9/27/2017 10:32:48	86018-1.RAW	10:32:48 AM	690.93	1		672.9	4.878	487.760	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	9/27/2017 10:36:56	86019-1.RAW	10:36:56 AM	691.42			673.4	4.910	4.910	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	9/27/2017 10:41:05	86020-1.RAW	10:41:05 AM	32.56			14.5	0.106	0.106	ng/L	
Hg2600-2	BC	SAM	1709489-13	100	9/27/2017 10:45:13	86021-1.RAW	10:45:13 AM	683.78	1		665.8	4.825	482.524	ng/L	
Hg2600-2	BC	SAM	1709489-14	100	9/27/2017 10:49:22	86022-1.RAW	10:49:22 AM	1271.40	1		1253.4	9.110	911.008	ng/L	
Hg2600-2	BC	SAM	1709489-15	100	9/27/2017 10:53:30	86023-1.RAW	10:53:30 AM	789.62	1		751.6	5.451	545.117	ng/L	
Hg2600-2	BC	SAM	1709489-16	100	9/27/2017 10:57:39	86024-1.RAW	10:57:39 AM	638.60	1		620.8	4.197	449.725	ng/L	
Hg2600-2	BC	SAM	1709489-17	100	9/27/2017 11:01:47	86025-1.RAW	11:01:47 AM	707.12	1		689.1	4.995	495.543	ng/L	
Hg2600-2	BC	SAM	1709489-18	100	9/27/2017 11:05:55	86026-1.RAW	11:05:55 AM	858.64	1		840.6	6.100	610.025	ng/L	
Hg2600-2	BC	SAM	1709489-19	100	9/27/2017 11:10:04	86027-1.RAW	11:10:04 AM	878.08	1		858.1	6.227	622.746	ng/L	
Hg2600-2	BC	SAM	1709489-20	100	9/27/2017 11:14:12	86028-1.RAW	11:14:12 AM	744.62	1		726.8	5.770	577.034	ng/L	
Hg2600-2	BC	SAM	F709409-DUP1	100	9/27/2017 11:18:21	86029-1.RAW	11:18:21 AM	804.72	1		786.7	5.707	570.712	ng/L	
Hg2600-2	BC	SAM	F709409-MS1	400	9/27/2017 11:22:29	86030-1.RAW	11:22:29 AM	1906.09	1		1888.1	13.760	5504.079	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	9/27/2017 11:26:38	86031-1.RAW	11:26:38 AM	711.66			693.6	5.058	5.058	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	9/27/2017 11:30:46	86032-1.RAW	11:30:46 AM	31.03			13.0	0.095	0.095	ng/L	
Hg2600-2	BC	SAM	F709409-MSD1	400	9/27/2017 11:34:54	86033-1.RAW	11:34:54 AM	1885.31	1		1867.3	13.609	5443.470	ng/L	
Hg2600-2	BC	SAM	F709409-MSD2	400	9/27/2017 11:39:03	86034-1.RAW	11:39:03 AM	1891.64	1		1873.6	13.655	5461.933	ng/L	
Hg2600-2	BC	SAM	F709409-MSD3	400	9/27/2017 11:43:11	86035-1.RAW	11:43:11 AM	1882.01	1		1864.0	14.314	5725.518	ng/L	
Hg2600-2	BC	BLK	F709410-BLK1	20	9/27/2017 11:47:20	86036-1.RAW	11:47:20 AM	32.88	2		35.0	0.255	5.099	ng/L	
Hg2600-2	BC	BLK	F709410-BLK2	20	9/27/2017 11:51:28	86037-1.RAW	11:51:28 AM	40.52	2		22.5	0.164	3.282	ng/L	
Hg2600-2	BC	BLK	F709410-BLK3	20	9/27/2017 11:55:36	86038-1.RAW	11:55:36 AM	23.50	2		8.5	0.062	1.245	ng/L	
Hg2600-2	BC	SAM	F709410-BLK4	20	9/27/2017 11:59:45	86039-1.RAW	11:59:45 AM	68.34	2		50.3	0.207	4.130	ng/L	
Hg2600-2	BC	SAM	F709410-BLK5	20	9/27/2017 12:03:53	86040-1.RAW	12:03:53 PM	23.64	2		5.6	-0.119	2.389	ng/L	
Hg2600-2	BC	SAM	F709410-BS1	20	9/27/2017 12:08:02	86041-1.RAW	12:08:02 PM	705.79	2		687.8	4.855	97.094	ng/L	
Hg2600-2	BC	SAM	F709410-BSD1	20	9/27/2017 12:12:10	86042-1.RAW	12:12:10 PM	731.45	2		713.4	5.042	100.836	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	9/27/2017 12:16:19	86043-1.RAW	12:16:19 PM	701.69			683.7	4.985	4.985	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	9/27/2017 12:20:27	86044-1.RAW	12:20:27 PM	87.96			19.0	0.145	0.145	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?						
Hg2600-2	BC	SAM	F709410-BS2	400	9/27/2017 12:24:35	86045-1.RAW	12:24:35 PM	748.55	2			730.5	5.319	2127.567	ng/L	
Hg2600-2	BC	SAM	1709490-01	100	9/27/2017 12:28:44	86046-1.RAW	12:28:44 PM	2775.77	2			2757.7	20.077	2007.667	ng/L	
Hg2600-2	BC	SAM	1709490-02	100	9/27/2017 12:32:52	86047-1.RAW	12:32:52 PM	2813.09	2			2795.1	20.349	2034.917	ng/L	
Hg2600-2	BC	SAM	1709490-03	100	9/27/2017 12:37:01	86048-1.RAW	12:37:01 PM	1714.82	2			7156.3	52.151	5215.061	ng/L	
Hg2600-2	BC	SAM	1709490-04	100	9/27/2017 12:41:09	86049-1.RAW	12:41:09 PM	4454.00	2			4436.0	32.314	3231.144	ng/L	
Hg2600-2	BC	SAM	1709490-05	100	9/27/2017 12:45:16	86050-1.RAW	12:45:16 PM	3958.38	2			3938.4	28.686	2868.587	ng/L	
Hg2600-2	BC	SAM	1709490-06	100	9/27/2017 12:49:26	86051-1.RAW	12:49:26 PM	4805.34	2			4787.3	34.876	3487.636	ng/L	
Hg2600-2	BC	SAM	1709490-07	100	9/27/2017 12:53:34	86052-1.RAW	12:53:34 PM	4272.56	2			4254.6	30.992	3099.163	ng/L	
Hg2600-2	BC	SAM	1709490-08	100	9/27/2017 12:57:43	86053-1.RAW	12:57:43 PM	3942.15	2			3924.1	28.587	2858.211	ng/L	
Hg2600-2	BC	SAM	1709490-09	100	9/27/2017 13:01:51	86054-1.RAW	1:01:51 PM	10528.98	2			10511.0	76.612	7661.229	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	9/27/2017 13:05:59	86055-1.RAW	1:05:59 PM	871.97				853.6	6.271	6.224	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	9/27/2017 13:10:33	86056-2.RAW	1:10:33 PM	73.48				55.5	0.404	0.404	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	9/27/2017 13:14:41	86057-1.RAW	1:14:41 PM	721.47				703.5	5.129	5.129	ng/L	
Hg2600-2	BC	CAI	SFQ-CCV7	1	9/27/2017 13:18:50	86058-1.RAW	1:18:50 PM	740.98				723.0	5.272	5.272	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	9/27/2017 13:22:59	86059-1.RAW	1:22:59 PM	53.13				35.1	0.256	0.256	ng/L	
Hg2600-2	BC	SAM	1709490-10	100	9/27/2017 13:27:07	86060-1.RAW	1:27:07 PM	7101.95	2			7083.9	51.623	5162.290	ng/L	
Hg2600-2	BC	SAM	1709490-11	100	9/27/2017 13:31:16	86061-1.RAW	1:31:16 PM	4265.59	2			4247.6	30.941	3094.058	ng/L	
Hg2600-2	BC	SAM	1709490-12	100	9/27/2017 13:35:25	86062-1.RAW	1:35:25 PM	16290.68	2			16272.7	118.626	11862.575	ng/L	
Hg2600-2	BC	SAM	CLEAN		9/27/2017 13:47:50	86064-1.RAW	1:47:50 PM	202.68		x		164.7	1.347	0.000	ng/L	
Hg2600-2	BC	SAM	WS		9/27/2017 13:51:59	86065-1.RAW	1:51:59 PM	60.70		x		42.7	0.311	0.000	ng/L	
Hg2600-2	BC	SAM	CLEAN		9/27/2017 13:55:30	86066-1.RAW	1:55:30 PM	17.99		x		0.0	0.000	0.000	ng/L	
Hg2600-2	BC	SAM	WS		9/27/2017 13:59:39	86067-1.RAW	1:59:39 PM	40.76		x		27.7	0.165	0.000	ng/L	
Hg2600-2	BC	SAM	1709490-13	400	9/27/2017 14:03:47	86063-3.RAW	2:03:47 PM	730.87	2			712.9	5.190	2075.999	ng/L	
Hg2600-2	BC	SAM	1709490-14	400	9/27/2017 14:07:56	86068-1.RAW	2:07:56 PM	730.99	2			713.0	5.191	2076.249	ng/L	
Hg2600-2	BC	SAM	1709490-15	400	9/27/2017 14:12:04	86069-1.RAW	2:12:04 PM	1389.03	2			1371.0	9.989	3995.681	ng/L	
Hg2600-2	BC	SAM	1709490-16	400	9/27/2017 14:16:12	86070-1.RAW	2:16:12 PM	1639.78	2			1621.8	11.818	4727.054	ng/L	
Hg2600-2	BC	SAM	1709490-17	400	9/27/2017 14:20:21	86071-1.RAW	2:20:21 PM	2254.94	2			2236.9	16.303	6521.316	ng/L	
Hg2600-2	BC	SAM	1709490-18	400	9/27/2017 14:24:29	86072-1.RAW	2:24:29 PM	537.05	2			519.0	3.777	1510.677	ng/L	
Hg2600-2	BC	SAM	1709490-19	400	9/27/2017 14:28:38	86073-1.RAW	2:28:38 PM	557.98	2			539.1	3.923	1569.099	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8	1	9/27/2017 14:32:46	86074-1.RAW	2:32:46 PM	727.46				709.4	5.173	5.173	ng/L	
Hg2600-2	BC	CAI	SEQ-CCV7	1	9/27/2017 14:36:55	86075-1.RAW	2:36:55 PM	40.71				22.7	0.165	0.165	ng/L	
Hg2600-2	BC	SAM	1709490-20	400	9/27/2017 14:41:03	86076-1.RAW	2:41:03 PM	958.73	2			940.7	6.852	2740.608	ng/L	
Hg2600-2	BC	SAM	1709490-03RE1	400	9/27/2017 14:45:11	86077-1.RAW	2:45:11 PM	1849.00	2			1831.0	13.343	5337.294	ng/L	
Hg2600-2	BC	SAM	1709490-04RE1	400	9/27/2017 14:49:20	86078-1.RAW	2:49:20 PM	1126.90	2			1108.9	8.078	3251.116	ng/L	
Hg2600-2	BC	SAM	1709490-09RE1	400	9/27/2017 14:53:28	86079-1.RAW	2:53:28 PM	2793.42	2			2775.4	20.230	8091.923	ng/L	
Hg2600-2	BC	SAM	1709490-10RE1	400	9/27/2017 14:57:37	86080-1.RAW	2:57:37 PM	1893.90	2			1875.9	13.671	5468.256	ng/L	
Hg2600-2	BC	SAM	1709490-11RE1	400	9/27/2017 15:01:45	86081-1.RAW	3:01:45 PM	1072.21	2			1054.2	7.679	3071.600	ng/L	
Hg2600-2	BC	SAM	1709490-12RE1	400	9/27/2017 15:05:53	86082-1.RAW	3:05:53 PM	4270.59	2			4252.6	31.001	12400.444	ng/L	
Hg2600-2	BC	SAM	F709410-DUP1	100	9/27/2017 15:10:02	86083-1.RAW	3:10:02 PM	2915.02	2			2897.0	21.062	2109.243	ng/L	
Hg2600-2	BC	SAM	F709410-MS1	400	9/27/2017 15:14:10	86084-1.RAW	3:14:10 PM	2351.11	2			2333.1	17.005	6801.819	ng/L	
Hg2600-2	BC	SAM	F709410-MSD1	400	9/27/2017 15:18:19	86085-1.RAW	3:18:19 PM	2491.98	2			2474.0	18.032	7212.700	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV9	1	9/27/2017 15:22:27	86086-1.RAW	3:22:27 PM	781.45				763.4	5.567	5.567	ng/L	
Hg2600-2	BC	CAI	SFQ-CCV8	1	9/27/2017 15:26:36	86087-1.RAW	3:26:36 PM	53.93				35.9	0.262	0.262	ng/L	
Hg2600-2	BC	SAM	F709410-MS2	400	9/27/2017 15:30:44	86088-1.RAW	3:30:44 PM	2751.14	2			2743.1	19.994	7997.770	ng/L	
Hg2600-2	BC	SAM	F709410-MSD2	400	9/27/2017 15:34:52	86089-1.RAW	3:34:52 PM	2835.83	2			2817.8	20.539	8215.622	ng/L	
Hg2600-2	BC	BLK	F709433-BLK1	20	9/27/2017 15:39:01	86090-1.RAW	3:39:01 PM	53.98	3			46.0	0.335	6.703	ng/L	
Hg2600-2	BC	BLK	F709433-BLK2	20	9/27/2017 15:43:09	86091-1.RAW	3:43:09 PM	38.32	3			20.3	0.148	7.961	ng/L	
Hg2600-2	BC	BLK	F709433-BLK3	20	9/27/2017 15:47:18	86092-1.RAW	3:47:18 PM	31.72	3			13.7	0.100	1.998	ng/L	
Hg2600-2	BC	SAM	F709433-BS1	20	9/27/2017 15:51:26	86093-1.RAW	3:51:26 PM	743.22	3			725.2	5.094	101.874	ng/L	
Hg2600-2	BC	SAM	F709433-BS2	20	9/27/2017 15:55:34	86094-1.RAW	3:55:34 PM	724.21	3			706.2	4.955	99.102	ng/L	
Hg2600-2	BC	SAM	F709433-BS3	20	9/27/2017 15:59:43	86095-1.RAW	3:59:43 PM	745.24	3			727.3	5.109	102.183	ng/L	
Hg2600-2	BC	SAM	F709433-BS4	20	9/27/2017 16:03:51	86096-1.RAW	4:03:51 PM	713.15	3			695.1	4.874	97.489	ng/L	
Hg2600-2	BC	SAM	1709674-01	20	9/27/2017 16:08:00	86097-1.RAW	4:08:00 PM	38.50	3			20.5	-0.045	-0.900	ng/L	
Hg2600-2	BC	CAL	SEQ-CCVA	1	9/27/2017 16:12:08	86098-1.RAW	4:12:08 PM	728.86				710.8	5.183	5.183	ng/L	
Hg2600-2	BC	CAI	SFQ-CCV9	1	9/27/2017 16:16:17	86099-1.RAW	4:16:17 PM	32.88				14.9	0.108	0.108	ng/L	

TotalMercury EPA1631
 Operat BC
 BlankSi 18.018
 Calib Eqn:
 Conc = (Area-18.01
 Run Date: 9/27/2017
 Blank SD: 2.213895011
 Worksh THg2600
 CalibFa 137.14
 Status:
 QC Warnings:9/QC E
 Run Time: 13:52:38
 Blank RSD%: 12.28716466
 Method ##### R: 0.9999
 R²: 0.9998
 CF SD: 6.42200056
 CF RSD%: 4.682830435
 Descrip THg26002-170927-1

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppb)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ref)	Flags	RunCount
Clean				0.00	6.94					85983-1.RAW	8:06:03	951.47	Clean	OK	1
clean				0.00	0.03					85984-1.RAW	8:08:55	4.32	Clean	OK	1
ws				18.02	0.00					85985-1.RAW	8:13:03	11.36	Sample	OK	1
ws				18.02	0.00					85986-1.RAW	8:17:11	9.64	Sample	OK	1
ws				18.02	0.00					85987-1.RAW	8:21:20	8.11	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.12					85988-1.RAW	8:25:28	16.83	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.12					85989-1.RAW	8:29:37	16.65	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.15					85990-1.RAW	8:33:45	20.57	Sample	OK	1
SEQ-CAL1	A4		1	18.02	0.53			106.55		85991-1.RAW	8:37:54	91.08	Sample	OK	1
SEQ-CAL2	A5		1	18.02	1.02			101.85		85992-1.RAW	8:42:02	157.70	Sample	OK	1
SEQ-CAL3	A6		1	18.02	5.01			100.28		85993-1.RAW	8:46:10	705.66	Sample	OK	1
SEQ-CAL4	A7		1	18.02	19.39			96.97		85994-1.RAW	8:50:19	2677.69	Sample	OK	1
SEQ-CAL5	A8		1	18.02	37.74			94.34		85995-1.RAW	8:54:27	5193.00	Sample	OK	1
SEQ-ICV1	A9		1	18.02	5.04			100.79		85996-1.RAW	8:58:36	709.16	Sample	OK	1
F709409-BLK1	A10		20	18.02	7.70					85997-2.RAW	9:05:51	70.82	Sample	OK	1
F709409-BLK2	A11		20	18.02	0.75					85998-1.RAW	9:10:00	23.15	Sample	OK	1
F709409-BLK3	A12		20	18.02	0.37					85999-1.RAW	9:14:08	20.57	Sample	OK	1
*F709409-BLK4	A13		20	18.02	0.39					86000-1.RAW	9:18:17	20.67	Sample	OK	1
*F709409-BLK5	A14		20	18.02	0.89					86001-1.RAW	9:22:25	24.12	Sample	OK	1
F709409-BS1	A15		20	18.02	100.62					86002-1.RAW	9:26:33	707.99	Sample	OK	1
F709409-BSD1	A16		20	18.02	97.85					86003-1.RAW	9:30:42	888.98	Sample	OK	1
F709409-BS2	A17		400	18.02	2055.25					86004-1.RAW	9:34:50	722.86	Sample	OK	1
1709489-01	A18		100	18.02	521.96					86005-1.RAW	9:38:59	733.83	Sample	OK	1
1709489-02	A19		100	18.02	422.27					86006-1.RAW	9:43:07	597.17	Sample	OK	1
SEQ-CCV1	A20		1	18.02	4.83			96.58		86007-1.RAW	9:47:15	680.27	Sample	OK	1
SEQ-CCB1	A21		1	18.02	0.06			0.00		86008-1.RAW	9:51:24	26.14	Sample	OK	1
1709489-03	B1		100	18.02	573.70					86009-1.RAW	9:55:32	804.78	Sample	OK	1
1709489-04	B2		100	18.02	635.11					86010-1.RAW	9:59:41	889.00	Sample	OK	1
1709489-05	B3		100	18.02	486.10					86011-1.RAW	10:03:49	684.65	Sample	OK	1
1709489-06	B4		100	18.02	477.24					86012-1.RAW	10:07:58	672.50	Sample	OK	1
1709489-07	B5		100	18.02	856.72					86013-1.RAW	10:12:06	1192.92	Sample	OK	1
1709489-08	B6		100	18.02	585.83					86014-1.RAW	10:16:14	821.42	Sample	OK	1
1709489-09	B7		100	18.02	399.60					86015-1.RAW	10:20:23	566.03	Sample	OK	1
1709489-10	B8		100	18.02	436.63					86016-1.RAW	10:24:31	616.80	Sample	OK	1
1709489-11	B9		100	18.02	684.36					86017-1.RAW	10:28:40	956.55	Sample	OK	1
1709489-12	B10		100	18.02	490.70					86018-1.RAW	10:32:48	690.96	Sample	OK	1
SEQ-CCV2	B11		1	18.02	4.91			98.21		86019-1.RAW	10:36:56	691.42	Sample	OK	1
SEQ-CCB2	B12		1	18.02	0.11			0.00		86020-1.RAW	10:41:05	32.56	Sample	OK	1
1709489-13	B13		100	18.02	485.46					86021-1.RAW	10:45:13	683.78	Sample	OK	1
1709489-14	B14		100	18.02	913.95					86022-1.RAW	10:49:22	1271.40	Sample	OK	1
1709489-15	B15		100	18.02	548.06					86023-1.RAW	10:53:30	769.62	Sample	OK	1
1709489-16	B16		100	18.02	452.67					86024-1.RAW	10:57:39	638.80	Sample	OK	1
1709489-17	B17		100	18.02	502.48					86025-1.RAW	11:01:47	707.12	Sample	OK	1
1709489-18	B18		100	18.02	612.97					86026-1.RAW	11:05:55	858.64	Sample	OK	1

1709489-19	B19	100	18.02	625.69		86027-1.RAW	11:10:04	878.08	Sample	OK	1
1709489-20	B20	100	18.02	529.98		86028-1.RAW	11:14:12	744.82	Sample	OK	1
F709409-DUP1	B21	100	18.02	573.65		86029-1.RAW	11:18:21	804.72	Sample	OK	1
F709409-MS1	C1	400	18.02	5507.03	958.33	86030-1.RAW	11:22:29	1906.09	Sample	OK	1
SEQ-CCV3	C2	1	18.02	5.06	101.16	86031-1.RAW	11:26:38	711.66	Sample	OK	1
SEQ-CCB3	C3	1	18.02	0.09	0.00	86032-1.RAW	11:30:46	31.03	Sample	OK	1
F709409-MSD1	C4	400	18.02	5446.40		86033-1.RAW	11:34:54	1885.31	Sample	OK	1
F709409-MS2	C5	400	18.02	5464.86	100.30	86034-1.RAW	11:39:03	1891.64	Sample	OK	1
F709409-MSD2	C6	400	18.02	5728.45		86035-1.RAW	11:43:11	1982.01	Sample	OK	1
F709410-BLK1	C7	20	18.02	5.10		86036-1.RAW	11:47:20	52.98	Sample	OK	1
F709410-BLK2	C8	20	18.02	3.28		86037-1.RAW	11:51:28	40.52	Sample	OK	1
F709410-BLK3	C9	20	18.02	1.25		86038-1.RAW	11:55:36	26.56	Sample	OK	1
*F709410-BLK4	C10	20	18.02	7.34		86039-1.RAW	11:59:45	68.34	Sample	OK	1
*F709410-BLK5	C11	20	18.02	0.82		86040-1.RAW	12:03:53	23.64	Sample	OK	1
F709410-BS1	C12	20	18.02	100.30		86041-1.RAW	12:08:02	705.79	Sample	OK	1
F709410-BSD1	C13	20	18.02	104.04		86042-1.RAW	12:12:10	731.45	Sample	OK	1
SEQ-CCV4	C14	1	18.02	4.99	99.70	86043-1.RAW	12:16:19	701.69	Sample	OK	1
SEQ-CCB4	C15	1	18.02	0.15	0.00	86044-1.RAW	12:20:27	37.96	Sample	OK	1
F709410-BS2	C16	400	18.02	2130.78		86045-1.RAW	12:24:35	748.55	Sample	OK	1
1709490-01	C17	100	18.02	2010.87		86046-1.RAW	12:28:44	2775.72	Sample	OK	1
1709490-02	C18	100	18.02	2036.13		86047-1.RAW	12:32:52	2813.09	Sample	OK	1
1709490-03	C19	100	18.02	5218.27		86048-1.RAW	12:37:01	7174.32	Sample	FB	1
1709490-04	C20	100	18.02	3234.65		86049-1.RAW	12:41:09	4454.00	Sample	OK	1
1709490-05	C21	100	18.02	2871.80		86050-1.RAW	12:45:18	3956.38	Sample	FB	1
1709490-06	A1	100	18.02	3490.85		86051-1.RAW	12:49:26	4805.34	Sample	OK	1
1709490-07	A2	100	18.02	3102.38		86052-1.RAW	12:53:34	4272.59	Sample	OK	1
1709490-08	A3	100	18.02	2861.42		86053-1.RAW	12:57:43	3942.15	Sample	OK	1
1709490-09	A4	100	18.02	7664.44		86054-1.RAW	13:01:51	10528.98	Sample	OK	1
SEQ-CCV5	A5	1	18.02	6.22	124.48	86055-1.RAW	13:05:59	871.57	Sample	OK	1
SEQ-CCB5	A6	1	18.02	0.40	0.00	86056-2.RAW	13:10:33	73.48	Sample	OK	1
SEQ-CCV6	A19	1	18.02	5.13	102.59	86057-1.RAW	13:14:41	721.47	Sample	OK	1
SEQ-CCV7	A20	1	18.02	5.27	105.43	86058-1.RAW	13:18:50	740.98	Sample	OK	1
SEQ-CCB6	A21	1	18.02	0.26	0.00	86059-1.RAW	13:22:59	53.13	Sample	OK	1
1709490-10	A7	100	18.02	5165.50		86060-1.RAW	13:27:07	7101.95	Sample	FB	1
1709490-11	A8	100	18.02	3097.27		86061-1.RAW	13:31:16	4265.59	Sample	OK	1
1709490-12	A9	100	18.02	11865.79		86062-1.RAW	13:35:25	16290.66	Sample	OK	1
CLEAN			0.00	1.48		86064-1.RAW	13:47:50	202.68	Clear	OK	1
WS			18.02	0.31		86065-1.RAW	13:51:59	60.70	Sample	OK	1
CLEAN			0.00	0.13		86066-1.RAW	13:55:30	17.99	Clear	OK	1
WS			18.02	0.17		86067-1.RAW	13:59:39	40.76	Sample	OK	1
1709490-13	A10	400	18.02	2079.20		86063-3.RAW	14:03:47	730.87	Sample	OK	1
1709490-14	A11	400	18.02	2079.55		86068-1.RAW	14:07:56	730.99	Sample	OK	1
1709490-15	A12	400	18.02	3998.89		86069-1.RAW	14:12:04	1389.03	Sample	OK	1
1709490-16	A13	400	18.02	4730.26		86070-1.RAW	14:16:12	1639.78	Sample	OK	1
1709490-17	A14	400	18.02	6524.53		86071-1.RAW	14:20:21	2254.94	Sample	OK	1
1709490-18	A15	400	18.02	1513.87		86072-1.RAW	14:24:29	537.05	Sample	OK	1
1709490-19	A16	400	18.02	1572.30		86073-1.RAW	14:28:38	557.08	Sample	OK	1
SEQ-CCV8	A17	1	18.02	5.17	103.46	86074-1.RAW	14:32:46	727.46	Sample	OK	1
SEQ-CCB7	A18	1	18.02	0.17	0.00	86075-1.RAW	14:36:55	40.71	Sample	OK	1

1709490-20	B1	400	18.02	2743.80		86076-1.RAW	14:41:03	956.73	Sample	OK	1
1709490-03RE1	B2	400	18.02	5340.49		86077-1.RAW	14:45:11	1849.00	Sample	OK	1
1709490-04RE1	B3	400	18.02	3234.34		86078-1.RAW	14:49:20	1126.90	Sample	OK	1
1709490-09RE1	B4	400	18.02	8095.14		86079-1.RAW	14:53:28	2793.42	Sample	OK	1
1709490-10RE1	B5	400	18.02	5471.47		86080-1.RAW	14:57:37	1893.90	Sample	OK	1
1709490-11RE1	B6	400	18.02	3074.82		86081-1.RAW	15:01:45	1072.21	Sample	OK	1
1709490-12RE1	B7	400	18.02	12403.66		86082-1.RAW	15:05:53	4270.59	Sample	OK	1
F709410-DUP1	B8	100	18.02	2112.45		86083-1.RAW	15:10:02	2915.02	Sample	FB	1
F709410-MS1	B9	400	18.02	6805.02	321.99	86084-1.RAW	15:14:10	2351.11	Sample	OK	1
F709410-MSD1	B10	400	18.02	7215.91		86085-1.RAW	15:18:19	2491.98	Sample	OK	1
SEQ-CCV9	B11	1	18.02	5.57	111.34	86086-1.RAW	15:22:27	781.45	Sample	OK	1
SEQ-CCB8	B12	1	18.02	0.26	0.00	86087-1.RAW	15:26:36	53.93	Sample	OK	1
F709410-MS2	B13	400	18.02	8000.99	353737.52	86088-1.RAW	15:30:44	2761.14	Sample	OK	1
F709410-MSD2	B14	400	18.02	8218.82		86089-1.RAW	15:34:52	2835.83	Sample	OK	1
F709433-BLK1	B15	20	18.02	6.70		86090-1.RAW	15:39:01	63.98	Sample	OK	1
F709433-BLK2	B16	20	18.02	2.96		86091-1.RAW	15:43:09	38.32	Sample	OK	1
F709433-BLK3	B17	20	18.02	2.00		86092-1.RAW	15:47:18	31.72	Sample	OK	1
F709433-BS1	B18	20	18.02	105.76		86093-1.RAW	15:51:26	743.22	Sample	OK	1
F709433-BS2	B19	20	18.02	102.99		86094-1.RAW	15:55:34	724.21	Sample	OK	1
F709433-BS3	B20	20	18.02	106.07		86095-1.RAW	15:59:43	745.34	Sample	OK	1
F709433-BS4	B21	20	18.02	101.38		86096-1.RAW	16:03:51	713.15	Sample	OK	1
1709874-01	C1	20	18.02	2.99		86097-1.RAW	16:08:00	38.50	Sample	OK	1
SEQ-CCVA	C2	1	18.02	5.18		86098-1.RAW	16:12:08	728.86	Sample	OK	1
SEQ-CCB9	C3	1	18.02	0.11	0.00	86099-1.RAW	16:16:17	32.88	Sample	OK	1

ANALYSIS SEQUENCE

7128009



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 9/27/2017

Lah Number	Analysis	Order	STD ID	ISTD ID	Comments
7128009-IBL1	QC	1			
7128009-IBL2	QC	2			
7128009-IBL3	QC	3			
7128009-CAL1	QC	4	1704505		
7128009-CAL2	QC	5	1704506		
7128009-CAL3	QC	6	1704507		
7128009-CAL4	QC	7	1704508		
7128009-CAL5	QC	8	1704509		
7128009-ICV1	QC	9	1705628		
F709409-BLK1	QC	10			
F709409-BLK2	QC	11			
F709409-BLK3	QC	12			
F709409-BLK4	QC	13			
F709409-BLK5	QC	14			
F709409-BS1	QC	15			
F709409-BSD1	QC	16			
F709409-BS2	QC	17			
1709489-01	Hg-CVAFS-T-7030	18			
1709489-02	Hg-CVAFS-T-7030	19			
7128009-CCV1	QC	20	1705628		
7128009-CCB1	QC	21			
1709489-03	Hg-CVAFS-T-7030	22			
1709489-04	Hg-CVAFS-T-7030	23			
1709489-05	Hg-CVAFS-T-7030	24			
1709489-06	Hg-CVAFS-T-7030	25			
1709489-07	Hg-CVAFS-T-7030	26			
1709489-08	Hg-CVAFS-T-7030	27			
1709489-09	Hg-CVAFS-T-7030	28			
1709489-10	Hg-CVAFS-T-7030	29			
1709489-11	Hg-CVAFS-T-7030	30			
1709489-12	Hg-CVAFS-T-7030	31			
7128009-CCV2	QC	32	1705628		
7128009-CCB2	QC	33			
1709489-13	Hg-CVAFS-T-7030	34			
1709489-14	Hg-CVAFS-T-7030	35			

Due Date: 10/17/2017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 9/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709489-15	Hg-CVAFS-T-7030	36			
1709489-16	Hg-CVAFS-T-7030	37			
1709489-17	Hg-CVAFS-T-7030	38			
1709489-18	Hg-CVAFS-T-7030	39			
1709489-19	Hg-CVAFS-T-7030	40			
1709489-20	Hg-CVAFS-T-7030	41			
F709409-DUPI	QC	42			
F709409-MS1	QC	43			
7128009-CCV3	QC	44	1705628		
7128009-CCB3	QC	45			
F709409-MSD1	QC	46			
F709409-MS2	QC	47			
F709409-MSD2	QC	48			
F709410-BLK1	QC	49			
F709410-BLK2	QC	50			
F709410-BLK3	QC	51			
F709410-BLK4	QC	52			
F709410-BLK5	QC	53			
F709410-BS1	QC	54			
F709410-BSD1	QC	55			
7128009-CCV4	QC	56	1705628		
7128009-CCB4	QC	57			
F709410-BS2	QC	58			
1709490-01	Hg-CVAFS-T-7030	59			
1709490-02	Hg-CVAFS-T-7030	60			
1709490-03	Hg-CVAFS-T-7030	61			
1709490-04	Hg-CVAFS-T-7030	62			
1709490-05	Hg-CVAFS-T-7030	63			
1709490-06	Hg-CVAFS-T-7030	64			
1709490-07	Hg-CVAFS-T-7030	65			
1709490-08	Hg-CVAFS-T-7030	66			
1709490-09	Hg-CVAFS-T-7030	67			
7128009-CCV5	QC	68	1705628		
7128009-CCB5	QC	69			
7128009-CCV6	QC	70	1705628		

Due Date: 10/17/2017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 9/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7128009-CCV7	QC	71	1705628		
7128009-CCB6	QC	72			
1709490-10	Hg-CVAFS-T-7030	73			
1709490-11	Hg-CVAFS-T-7030	74			
1709490-12	Hg-CVAFS-T-7030	75			
1709490-13	Hg-CVAFS-T-7030	76			
1709490-14	Hg-CVAFS-T-7030	77			
1709490-15	Hg-CVAFS-T-7030	78			
1709490-16	Hg-CVAFS-T-7030	79			
1709490-17	Hg-CVAFS-T-7030	80			
1709490-18	Hg-CVAFS-T-7030	81			
1709490-19	Hg-CVAFS-T-7030	82			
7128009-CCV8	QC	83	1705628		
7128009-CCB7	QC	84			
1709490-20	Hg-CVAFS-T-7030	85			
1709490-03RE1	Hg-CVAFS-T-7030	86			Added 9/28/2017 by BC
1709490-04RE1	Hg-CVAFS-T-7030	87			Added 9/28/2017 by BC
1709490-09RE1	Hg-CVAFS-T-7030	88			Added 9/28/2017 by BC
1709490-10RE1	Hg-CVAFS-T-7030	89			Added 9/28/2017 by BC
1709490-11RE1	Hg-CVAFS-T-7030	90			Added 9/28/2017 by BC
1709490-12RE1	Hg-CVAFS-T-7030	91			Added 9/28/2017 by BC
F709410-DUP1	QC	92			
F709410-MS1	QC	93			
F709410-MSD1	QC	94			
7128009-CCV9	QC	95	1705628		
7128009-CCB8	QC	96			
F709410-MS2	QC	97			
F709410-MSD2	QC	98			
F709433-BLK1	QC	99			
F709433-BLK2	QC	100			
F709433-BLK3	QC	101			
F709433-BS1	QC	102			
F709433-BS2	QC	103			
F709433-BS3	QC	104			
F709433-BS4	QC	105			

Due Date: 10/17/2017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 9/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709674-01	Hg-CVAFS-T-7030	106			
7I28009-CCVA	QC	107	1705628		
7I28009-CCB9	QC	108			

Becis 9/28/17

Samples Loaded By

Date

(Ondra 9/27/17)

Becis 9/28/17

Data Processed By

Date

Failing Data Report - 7128009

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1709490-03	Hg-CVAFS-T-7030	397	3.81				ng/g						FAIL-OVER	PASS	E
1709490-09	Hg-CVAFS-T-7030	542	3.54				ng/g						FAIL-OVER	PASS	E
1709490-10	Hg-CVAFS-T-7030	364	3.53				ng/g						FAIL-OVER	PASS	E
1709490-12	Hg-CVAFS-T-7030	885	3.73				ng/g						FAIL-OVER	PASS	E
7128009-CCV5	Hg-CVAFS-T-7030	6.224	1.000			5.0000	ng/L	124	77.00	123.00			PASS-OVER	FAIL-CCV	re run

Beckins 9/28/17
 Analyst Reviewed By Date

Don Motem 9/28/17
 Peer Reviewed By Date

PREPARATION BENCH SHEET

F709409

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709409-BLK1	Blank	0.5	40					
F709409-BLK2	Blank	0.5	40					
F709409-BLK3	Blank	0.5	40					
F709409-BLK4	Pre homog blank	0.516	40					Blanks for 1709489
F709409-BLK5	Post homog blank	0.54	40					Blanks for 1709489
F709409-BS1	LCS	0.5	40	1704421	40			
F709409-BS2	DORM4	0.253	40	1703305	253			
F709409-BSD1	LCS Dup	0.5	40	1704421	40			
F709409-DUP1	Duplicate [1709489-01]	0.52	40					
F709409-MS1	Matrix Spike [1709489-01]	0.546	40	1705554	200			
F709409-MS2	Matrix Spike [1709489-11]	0.556	40	1705554	200			
F709409-MSD1	Matrix Spike Dup [1709489-01]	0.563	40	1705554	200			
F709409-MSD2	Matrix Spike Dup [1709489-11]	0.549	40	1705554	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1.000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704516	THg Washstation (0.5% BrCl)	
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1705552	3% SnCl ₂ THg reductant	05-Mar-18 00:00
			1705602	70/30 Digestion Acid	17-Mar-18 00:00
			1705742	5% BrCl	22-Jan-18 00:00

PREPARATION BENCH SHEET

F709409

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709489-01	FBJR_17LT024_091417_LOB_01_TA	0.534	40	QC	-	-	MD/MS/MSD	
1709489-02	FBJR_17LT024_091417_LOB_02_TA	0.582	40	-	-	-		
1709489-03	FBJR_17LT024_091417_LOB_03_TA	0.563	40	-	-	-		
1709489-04	FBJR_17LT024_091417_LOB_04_TA	0.557	40	-	-	-		
1709489-05	FBJR_17LT025_091417_LOB_05_TA	0.515	40	-	-	-		
1709489-06	FBJR_17LT025_091417_LOB_06_TA	0.539	40	-	-	-		
1709489-07	FBJR_17LT026_091417_LOB_07_TA	0.594	40	-	-	-		
1709489-08	FBJR_17LT026_091417_LOB_08_TA	0.505	40	-	-	-		
1709489-09	FBJR_17LT026_091417_LOB_09_TA	0.591	40	-	-	-		
1709489-10	FBJR_17LT026_091417_LOB_10_TA	0.508	40	-	-	-		
1709489-11	FBJR_17LT027_091417_LOB_11_TA	0.581	40	QC	-	-	MS/MSD	
1709489-12	FBJR_17LT027_091417_LOB_12_TA	0.508	40	-	-	-		
1709489-13	FBJR_17LT027_091417_LOB_13_TA	0.544	40	-	-	-		
1709489-14	FBJR_17LT027_091417_LOB_14_TA	0.562	40	-	-	-		
1709489-15	FBJR_17LT027_091417_LOB_15_TA	0.573	40	-	-	-		
1709489-16	FBJR_17LT027_091417_LOB_16_TA	0.508	40	-	-	-		
1709489-17	FBJR_17LT027_091417_LOB_17_TA	0.51	40	-	-	-		
1709489-18	FBJR_17LT028_091417_LOB_18_TA	0.564	40	-	-	-		
1709489-19	FBJR_17LT028_091417_LOB_19_TA	0.569	40	-	-	-		

PREPARATION BENCH SHEET

F709409

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

1709489-20	FBJR_17LT028_091417_LOB_20_TA	0.585	40	-	-	-		
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PREPARATION BENCH SHEET

F709410

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709410-BLK1	Blank	0.5	40					
F709410-BLK2	Blank	0.5	40					
F709410-BLK3	Blank	0.5	40					
F709410-BLK4	Pre homog blank	0.539	40					
F709410-BLK5	Post homog blank	0.542	40					
F709410-BS1	LCS	0.5	40	1704421	40			
F709410-BS2	DORM4	0.253	40	1703305	253			
F709410-BSD1	LCS Dup	0.5	40	1704421	40			
F709410-DUP1	Duplicate [1709490-01]	0.537	40					
F709410-MS1	Matrix Spike [1709490-01]	0.519	40	1705554	200			
F709410-MS2	Matrix Spike [1709490-11]	0.585	40	1705554	200			
F709410-MSD1	Matrix Spike Dup [1709490-01]	0.552	40	1705554	200			
F709410-MSD2	Matrix Spike Dup [1709490-11]	0.572	40	1705554	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704516	THg Washstation (0.5% BrCl)	
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1705552	3% SnCl2 THg reductant	05-Mar-18 00:00
			1705602	70/30 Digestion Acid	17-Mar-18 00:00
			1705742	5% BrCl	22-Jan-18 00:00

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709410

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709490-01	CJ_17LT001_091317_LOB_01_TA	0.523	40	QC	-	-	MD/MS/MSD	
1709490-02	CJ_17LT001_091317_LOB_02_TA	0.545	40	-	-	-		
1709490-03	CJ_17LT001_091317_LOB_03_TA	0.525	40	-	-	-		
1709490-03RE1	CJ_17LT001_091317_LOB_03_TA	0.525	40	-	-	-	Added 9/28/2017 by BC	Added 9/28/2017 by BC
1709490-04	CJ_17LT001_091317_LOB_04_TA	0.56	40	-	-	-		
1709490-04RE1	CJ_17LT001_091317_LOB_04_TA	0.56	40	-	-	-	Added 9/28/2017 by BC	Added 9/28/2017 by BC
1709490-05	CJ_17LT001_091317_LOB_05_TA	0.541	40	-	-	-		
1709490-06	CJ_17LT002_091317_LOB_06_TA	0.523	40	-	-	-		
1709490-07	CJ_17LT002_091317_LOB_07_TA	0.575	40	-	-	-		
1709490-08	CJ_17LT003_091317_LOB_08_TA	0.591	40	-	-	-		
1709490-09	CJ_17LT003_091317_LOB_09_TA	0.565	40	-	-	-		
1709490-09RE1	CJ_17LT003_091317_LOB_09_TA	0.565	40	-	-	-	Added 9/28/2017 by BC	Added 9/28/2017 by BC
1709490-10	CJ_17LT003_091317_LOB_10_TA	0.567	40	-	-	-		
1709490-10RE1	CJ_17LT003_091317_LOB_10_TA	0.567	40	-	-	-	Added 9/28/2017 by BC	Added 9/28/2017 by BC
1709490-11	CJ_17LT004_091317_LOB_11_TA	0.536	40	QC	-	-	MS/MSD	
1709490-11RE1	CJ_17LT004_091317_LOB_11_TA	0.536	40	QC	-	-	MS/MSD Added 9/28/2017 by BC	Added 9/28/2017 by BC
1709490-12	CJ_17LT004_091317_LOB_12_TA	0.536	40	-	-	-		
1709490-12RE1	CJ_17LT004_091317_LOB_12_TA	0.536	40	-	-	-	Added 9/28/2017 by BC	Added 9/28/2017 by BC
1709490-13	CJ_17LT048_091517_LOB_13_TA	0.55	40	-	-	-		

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709410

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

1709490-14	CJ_17LT048_091517_LOB_14_TA	0.553	40	-	-	-		
1709490-15	CJ_17LT047_091517_LOB_15_TA	0.55	40	-	-	-		
1709490-16	CJ_17LT047_091517_LOB_16_TA	0.528	40	-	-	-		
1709490-17	CI_17LT047_091517_LOB_17_TA	0.571	40	-	-	-		
1709490-18	CI_17LT047_091517_LOB_18_TA	0.531	40	-	-	-		
1709490-19	CJ_17LT044_091517_LOB_19_TA	0.524	40	-	-	-		
1709490-20	CJ_17LT044_091517_LOB_20_TA	0.6	40	-	-	-		

PREPARATION BENCH SHEET

F709433

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709433-BLK1	Blank	0.5	40					
F709433-BLK2	Blank	0.5	40					
F709433-BLK3	Blank	0.5	40					
F709433-BS1	LCS	0.5	40	1704421	40			
F709433-BS2	LCS	0.5	40	1704421	40			
F709433-BS3	LCS	0.5	40	1704421	40			
F709433-BS4	LCS	0.5	40	1704421	40			

<u>Standard ID(s):</u> 1704421	<u>Description:</u> THg 100ng/mL Primary Spiking Standard	<u>Expiration:</u> 21-Oct-17 00:00	<u>Reagent ID(s):</u> 1703183 1704516 1704517 1705552 1705602 1705777	<u>Description:</u> THg Washstation (0.5% BrCl) THg Dilute 1% BrCl 3% SnCl2 THg reductant 70/30 Digestion Acid 5% BrCl	<u>Expiration:</u> 24-Nov-17 00:00 18-Dec-17 00:00 05-Mar-18 00:00 17-Mar-18 00:00 22-Jan-18 00:00
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PREPARATION BENCH SHEET

F709433

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709674-01	BC 70:30 Digest DOC	0.5	40	-	-	-		

PREPARATION BENCH SHEET

2600-2
 BSC 9/27/17

F709409

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709409-BLK1	Blank	0.5	40					2.5 mL
F709409-BLK2	Blank	0.5	40					2.5 mL
F709409-BLK3	Blank	0.5	40					2.5 mL
F709409-BLK4	Pre homog blank	0.516	40					Blanks for 1709489 2.5 mL
F709409-BLK5	Post homog blank	0.54	40					Blanks for 1709489 2.5 mL
F709409-BS1	LCS	0.5	40	1704421	40			2.5 mL
F709409-BS2	DORM4	0.253	40	1703305	253			125 mL
F709409-BSD1	LCS Dup	0.5	40	1704421	40			2.5 mL
F709409-DUP1	Duplicate [1709489-01]	0.52	40					500 mL
F709409-MS1	Matrix Spike [1709489-01]	0.546	40	1705554	200			125 mL
F709409-MS2	Matrix Spike [1709489-11]	0.556	40	1705554	200			125 mL
F709409-MSD1	Matrix Spike Dup [1709489-01]	0.563	40	1705554	200			125 mL
F709409-MSD2	Matrix Spike Dup [1709489-11]	0.549	40	1705554	200			125 mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1705003	Sodium Borohydride Solution	18-Aug-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705742	5% BrCl	22-Jan-18 00:00

2.5 mL = 20X
 125 mL = 400X
 500 mL = 100X

1704517
 1704516
 1705552
 1703182

Due Date: 10/17/2017

PREPARATION BENCH SHEET

1600-2
BC 9/27/17

F709409

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709489-01	FBJR_17LT024_091417_LOB_01_TA	0.534	40	QC	-	-	MD/MS/MSD 100x 500uL	
1709489-02	FBJR_17LT024_091417_LOB_02_TA	0.582	40	-	-	-	100x 500uL	
1709489-03	FBJR_17LT024_091417_LOB_03_TA	0.563	40	-	-	-	500uL	
1709489-04	FBJR_17LT024_091417_LOB_04_TA	0.557	40	-	-	-	500uL	
1709489-05	FBJR_17LT025_091417_LOB_05_TA	0.515	40	-	-	-	500uL	
1709489-06	FBJR_17LT025_091417_LOB_06_TA	0.539	40	-	-	-	500uL	
1709489-07	FBJR_17LT026_091417_LOB_07_TA	0.594	40	-	-	-	500uL	
1709489-08	FBJR_17LT026_091417_LOB_08_TA	0.505	40	-	-	-	500uL	
1709489-09	FBJR_17LT026_091417_LOB_09_TA	0.591	40	-	-	-	500uL	
1709489-10	FBJR_17LT026_091417_LOB_10_TA	0.508	40	-	-	-	500uL	
1709489-11	FBJR_17LT027_091417_LOB_11_TA	0.581	40	QC	-	-	MS/MSD 500uL	
1709489-12	FBJR_17LT027_091417_LOB_12_TA	0.508	40	-	-	-	500uL	
1709489-13	FBJR_17LT027_091417_LOB_13_TA	0.544	40	-	-	-	500uL	
1709489-14	FBJR_17LT027_091417_LOB_14_TA	0.562	40	-	-	-	500uL	
1709489-15	FBJR_17LT027_091417_LOB_15_TA	0.573	40	-	-	-	500uL	
1709489-16	FBJR_17LT027_091417_LOB_16_TA	0.508	40	-	-	-	500uL	
1709489-17	FBJR_17LT027_091417_LOB_17_TA	0.51	40	-	-	-	500uL	
1709489-18	FBJR_17LT028_091417_LOB_18_TA	0.564	40	-	-	-	500uL	
1709489-19	FBJR_17LT028_091417_LOB_19_TA	0.569	40	-	-	-	500uL	

Due Date: 10/17/2017

PREPARATION BENCH SHEET

2600-2

BCR/20/17

F709409

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

1709489-20	FBIR_17LT028_091417_LOB_20_TA	0.585	40	-	-	-	500u	
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Technician: AMB Batch#: F709409 Date: 9/25/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____
 Balance#: 0 Calibrated? Yes No Therm.#: 13698 Vial Type: Glass Teflon
 Calibrated? Yes No
 *Time in: 2025 Actual Temp. (raw): 78.0 °C w/ CF: 78.0 °C
 Time out: 2225 Actual Temp. (raw): timer °C w/ CF: timer °C
 *Time in can't begin before target temperature is reached

Final vol.: 40 mL (LIMS ID: 1705742) Spike vol.: 200 µL (LIMS ID: 1705554)
 Spike Witness: DM 9/25/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0U07852 Calibration Date: 9/20/17
 HNO₃ LIMS ID: N/A Pipette SN#: _____ Calibration Date: _____
 70/30 LIMS ID: 1705062 1705602 w/F Dispenser #: 02K*27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: AMB 9-25-17
 Glass Vial # 00068138 Boiling Chip lot # 1702551 *Hotblock Position: N2

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F709409-BLK1	0.573	23	F709409-MS2	0.556	BS2 =
2	F709409-BLK2	0.501	24	F709409-MSD2	0.549	DORMA
3	F709409-BLK3	0.542	25	1709489-12	0.508	<u>1703305</u> w/F <u>1702551</u> 9/26/17
4	F709409-BS1	0.525	26	1709489-13	0.544	Comments
5	F709409-BSD1	0.570	27	1709489-14	0.562	
6	F709409-BS2	0.2523	28	1709489-15	0.573	BLK 4 + BLKS:
7	F709409-BLK4	0.516	29	1709489-16	0.508	PRE + POST
8	F709409-BLK5	0.540	30	1709489-17	0.510	HOMOGEN. BLANKS
9	1709489-01	0.534	31	1709489-18	0.564	FOR 1709489
10	F709409-DUP	0.520	32	1709489-19	0.569	DUP1, MS1, MSD1:
11	F709409-MS1	0.546	33	1709489-20	0.585	1709489-01
12	F709409-MSD1	0.563	34			MS2, MSD2:
13	1709489-02	0.582	35			1709489-11
14	1709489-03	0.563	36			
15	1709489-04	0.557	37			BS1/BSD1 spiked
16	1709489-05	0.515	38			with 40ml of
17	1709489-06	0.539	39			100ng/mL,
18	1709489-07	0.594	40			LIMS ID:
19	1709489-08	0.505	41			1704421
20	1709489-09	0.591	42			AMB 9/25/17
21	1709489-10	0.508	43			
22	1709489-11	0.581	44			

PREPARATION BENCH SHEET

2600-2
BC 9/27/17

F709410

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709410-BLK1	Blank	0.5	40					2.5mL
F709410-BLK2	Blank	0.5	40					2.5mL
F709410-BLK3	Blank	0.5	40					2.5mL
F709410-BLK4	Pre homog blank	0.539	40					2.5mL
F709410-BLK5	Post homog blank	0.542	40					2.5mL
F709410-BS1	LCS	0.5	40	1704421	40			2.5mL
F709410-BS2	DORM4	0.253	40	1703305	253			12.5mL
F709410-BSD1	LCS Dup	0.5	40	1704421	40			2.5mL
F709410-DUP1	Duplicate [1709490-01]	0.537	40					500mL
F709410-MS1	Matrix Spike [1709490-01]	0.519	40	1705554	200			12.5mL
F709410-MS2	Matrix Spike [1709490-11]	0.585	40	1705554	200			12.5mL
F709410-MSD1	Matrix Spike Dup [1709490-01]	0.552	40	1705554	200			12.5mL
F709410-MSD2	Matrix Spike Dup [1709490-11]	0.572	40	1705554	200			12.5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	1Hg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1705602	70/30 Digestion Acid	17-Mar-18 00:00
1705554	1Hg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705742	5% BrCl	22-Jan-18 00:00

2.5 mL = 20x
12.5mL = 400x
500mL = 100x

1705552
1704517
1704516
1703102

PREPARATION BENCH SHEET

F709410

Eurofins Frontier Global Sciences, Inc.

2600-2

BL 9/27/17

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709490-01	CJ_17LT001_091317_LOB_01_TA	0.523	40	QC	-	-	MD/MS/MSD 500ul	
1709490-02	CJ_17LT001_091317_LOB_02_TA	0.545	40	-	-	-	500ul	
1709490-03	CJ_17LT001_091317_LOB_03_TA	0.525	40	-	-	-	500ul → 125ul	
1709490-04	CJ_17LT001_091317_LOB_04_TA	0.56	40	-	-	-	500ul → 125ul	
1709490-05	CJ_17LT001_091317_LOB_05_TA	0.541	40	-	-	-	500ul	
1709490-06	CJ_17LT002_091317_LOB_06_TA	0.523	40	-	-	-	500ul	
1709490-07	CJ_17LT002_091317_LOB_07_TA	0.575	40	-	-	-	500ul	
1709490-08	CJ_17LT003_091317_LOB_08_TA	0.591	40	-	-	-	500ul	
1709490-09	CJ_17LT003_091317_LOB_09_TA	0.565	40	-	-	-	500ul → 125ul	
1709490-10	CJ_17LT003_091317_LOB_10_TA	0.567	40	-	-	-	500ul → 125ul	
1709490-11	CJ_17LT004_091317_LOB_11_TA	0.536	40	QC	-	-	MS/MSD 500ul → 125ul	
1709490-12	CJ_17LT004_091317_LOB_12_TA	0.536	40	-	-	-	500ul → 125ul	
1709490-13	CJ_17LT048_091517_LOB_13_TA	0.55	40	-	-	-	125ul 500ul	
1709490-14	CJ_17LT048_091517_LOB_14_TA	0.553	40	-	-	-	5-125ul 500ul	
1709490-15	CJ_17LT047_091517_LOB_15_TA	0.55	40	-	-	-	125ul 500ul	
1709490-16	CJ_17LT047_091517_LOB_16_TA	0.528	40	-	-	-	125ul 500ul	
1709490-17	CJ_17LT047_091517_LOB_17_TA	0.571	40	-	-	-	125ul 500ul	
1709490-18	CJ_17LT047_091517_LOB_18_TA	0.531	40	-	-	-	125ul 500ul	
1709490-19	CJ_17LT044_091517_LOB_19_TA	0.524	40	-	-	-	125ul 500ul	

Due Date: 10/17/2017

PREPARATION BENCH SHEET

2600-2
BC 9/27/17

F709410

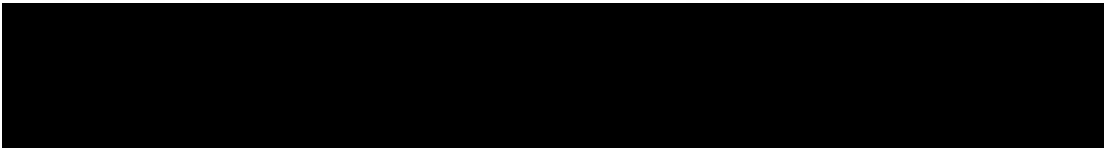
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/25/2017

1709490-20	CJ_17LT044_091517_LOB_20_1A	0.6	40	-	-	-	125 _{uv}	
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Technician: AMB Batch#: F709410 Date: 9-25-17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6 Calibrated? Yes No Therm. #: 13698 Calibrated? Yes No

*Time in: 2025 Actual Temp. (raw): 78.0 °C w/ CF: 78.0 °C

Time out: 2225 Actual Temp. (raw): timer °C w/ CF: timer °C

*Time in can't begin before target temperature is reached

Final vol.: 40 mL (LIMS ID: 1705748) Spike vol.: 200 µL (LIMS ID: 1705554)
 Spike Witness: DM 9/25/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0407852 Calibration Date: 9-20-17
 HNO₃ LIMS ID: N/A Pipette SN#: _____ Calibration Date: _____
 70/30 LIMS ID: 1705062 (705602 w/CF) Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: _____
 Glass Vial # 00068138 Boiling Chip lot # 1702551 *Hotblock Position: N2

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F709410-BLK1	0.546	23	F709410-MS2	0.585	BS2 ^c
2	F709410-BLK2	0.501	24	F709410-MSD	0.572	DORMA
3	F709410-BLK3	0.515	25	1709490-12	0.536	1703305
4	F709410-BSI	0.504	26	1709490-13	0.550	Comments
5	F709410-BSD3	0.530	27	1709490-13A	0.553	BLK4 + BLK5:
6	F709410-BLK4	0.539	28	1709490-15	0.550	PRE+POST
7	F709410-BLK5	0.542	29	1709490-16	0.528	Homogen.
8	F709410-BS2	0.253	30	1709490-17	0.571	blanks
9	1709490-01	0.523	31	1709490-18	0.531	DUP1, MS1, MSD1:
10	F709410-DUP1	0.537	32	1709490-19	0.524	1709490-01
11	F709410-MS1	0.519	33	1709490-20	0.600	MS2, MSD2:
12	F709410-MSD1	0.552	34			1709490-11
13	1709490-02	0.545	35			
14	1709490-03	0.525	36			
15	1709490-04	0.560	37			
16	1709490-05	0.541	38			
17	1709490-06	0.523	39			
18	1709490-07	0.575	40			
19	1709490-08	0.591	41			
20	1709490-09	0.565	42			
21	1709490-10	0.567	43			
22	1709490-11	0.536	44			

AMB 9/25/17

BSI, BSD1
 spiked with
 40µl of 100ng/ml
 LIMS:
 1704421
 AMB 9/25/17

PREPARATION BENCH SHEET

2600-2
BL 9/27/7

F709433

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709433-BLK1	Blank	0.5	40					2.5ml
F709433-BLK2	Blank	0.5	40					2.5ml
F709433-BLK3	Blank	0.5	40					2.5ml
F709433-BS1	LCS	0.5	40	1704421	40			2.5ml
F709433-BS2	LCS	0.5	40	1704421	40			2.5ml
F709433-BS3	LCS	0.5	40	1704421	40			2.5ml
F709433-BS4	LCS	0.5	40	1704421	40			2.5ml

Standard ID(s): 1704421
Description: THg 100ng/ml Primary Spiking Standard

Expiration: 21-Oct-17 00:00

Reagent ID(s): 1705602, 1705777
Description: 70/30 Digestion Acid, 5% BrCl

Expiration: 17-Mar-18 00:00, 22-Jan-18 00:00

2.5ml = 20x

1704516
1704517
1705552
1703103

PREPARATION BENCH SHEET

2600-2
BC 9/27/17

F709433

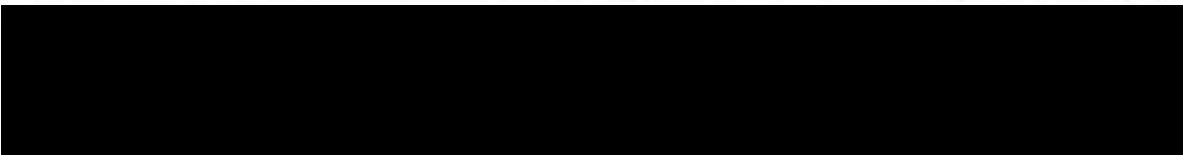
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709674-01	BC 70:30 Digest DOC	0.5	40	-	-	-	2.5 ml	



Technician: BC Batch#: F709433 Date: 9/26/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6 Calibrated? Yes No Therm.#: 15 14845 Calibrated? Yes No

Time in: 11:30 Actual Temp. (raw): 78.2 °C w/ CF: 78.3 °C
 Time out: 11:35 Actual Temp. (raw): 75.0 °C w/ CF: 75.1 °C

*Time in can't begin before target temperature is reached

Final vol.: 40 mL (LIMS ID: 1705777) Spike vol.: 40 µL (LIMS ID: 1704421)
 Spike Witness: DM 9/26/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: MU11619 Calibration Date: 9-26-17
 HNO₃ LIMS ID: NA Pipette SN#: NA Calibration Date: NA
 70/30 LIMS ID: 1705602 Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: NA Dispenser #: 15406623 Q58
 Glass Vial # 00066592 Boiling Chip lot # 1702551 *Hotblock Position: M4

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F709433-BW	0.514	23			
2	F709433-BK2	0.512	24			
3	F709433-BK3	0.569	25			
4	F709433-BS1	0.579	26			
5	F709433-BS2	0.503	27			
6	F709433-BS3	0.544	28			
7	F709433-BS4	0.525	29			
8	1709674-01	0.514	30			1704674-01 Should generate vial as B/W
9			31			
10			32			
11			33			
12			34			
13			35			
14			36			
15			37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7128009
Reviewer:	DM	Dataset ID(s):	THg26002-170927-1
Date:	8/28/2017	WO (s) #:	Various
Batch #(s):	F709409, F709410, F709433		

• Select the correct preparation method.

Analyte	Prep Method	Matrix
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2885	FSTM Trap 70:30 Digest Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2736	BrCl Oxidation Water
<input type="checkbox"/> HgD	NA	NA Water
<input type="checkbox"/> Inorg Hg	NA	NA Water

Analyst Initials: BC Reviewer Initials: DM

- | | | | |
|---|---|--|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?
Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Check 5% of transcription from Instrument print-out and Excel file
Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel?
50 ml / aliquot = Excel dilution value | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7128009
Reviewer: 0	Dataset ID(s): THg26002-170927-1
Date: 9/28/2017	WO (s) #: Various
Batch #(s): F709409, F709410, F709433	0

Analyst Initials BC Reviewer Initials DM

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF ($\leq 15\%$) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | |
| Comments: <u>Samples off curve. CCV failed due to proceeding sample being off curve</u> | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7128009
Reviewer:	0	Dataset ID(s):	THg26002-170927-1
Date:	9/28/2017	WO (s) #:	Various
Batch #(s):	F709409, F709410, F709433		0

Analyst Initials BC Reviewer Initials DM

- | | | | | |
|--|--|-------------------------------|---|-------------------------------------|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 25. Are re-runs noted with reason? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | | | |
|---|-----------|----------------------------------|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ | 1/27/2017 | IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ | 5/20/2017 | Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ | 5/9/2017 | LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ | 5/9/2017 | LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709491

PO#

C012505850

November 14, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709491

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November 14, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:06

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
L9-45_17LT015_091317_LOB_01_TA	1709491-01	Tissue	13-Sep-17 08:56	19-Sep-17 09:35
L9-45_17LT015_091317_LOB_02_TA	1709491-02	Tissue	13-Sep-17 08:56	19-Sep-17 09:35
L9-45_17LT015_091317_LOB_03_TA	1709491-03	Tissue	13-Sep-17 08:56	19-Sep-17 09:35
L9-45_17LT015_091317_LOB_04_TA	1709491-04	Tissue	13-Sep-17 08:56	19-Sep-17 09:35
L9-45_17LT015_091317_LOB_05_TA	1709491-05	Tissue	13-Sep-17 08:56	19-Sep-17 09:35
L9-45_17LT015_091317_LOB_06_TA	1709491-06	Tissue	13-Sep-17 08:56	19-Sep-17 09:35
L9-45_17LT015_091317_LOB_07_TA	1709491-07	Tissue	13-Sep-17 08:56	19-Sep-17 09:35
L9-45_17LT015_091317_LOB_08_TA	1709491-08	Tissue	13-Sep-17 08:56	19-Sep-17 09:35
L9-45_17LT016_091317_LOB_09_TA	1709491-09	Tissue	13-Sep-17 09:13	19-Sep-17 09:35
L9-45_17LT016_091317_LOB_10_TA	1709491-10	Tissue	13-Sep-17 09:13	19-Sep-17 09:35
L9-45_17LT016_091317_LOB_11_TA	1709491-11	Tissue	13-Sep-17 09:13	19-Sep-17 09:35
L9-45_17LT016_091317_LOB_12_TA	1709491-12	Tissue	13-Sep-17 09:13	19-Sep-17 09:35
L9-45_17LT016_091317_LOB_13_TA	1709491-13	Tissue	13-Sep-17 09:13	19-Sep-17 09:35
L9-45_17LT016_091317_LOB_14_TA	1709491-14	Tissue	13-Sep-17 09:13	19-Sep-17 09:35
L9-45_17LT017_091317_LOB_15_TA	1709491-15	Tissue	13-Sep-17 09:25	19-Sep-17 09:35
L9-45_17LT017_091317_LOB_16_TA	1709491-16	Tissue	13-Sep-17 09:25	19-Sep-17 09:35
L9-45_17LT017_091317_LOB_17_TA	1709491-17	Tissue	13-Sep-17 09:25	19-Sep-17 09:35
L9-45_17LT017_091317_LOB_18_TA	1709491-18	Tissue	13-Sep-17 09:25	19-Sep-17 09:35
L9-45_17LT018_091317_LOB_19_TA	1709491-19	Tissue	13-Sep-17 09:33	19-Sep-17 09:35
L9-45_17LT018_091317_LOB_20_TA	1709491-20	Tissue	13-Sep-17 09:33	19-Sep-17 09:35

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
14-Nov-17 15:06

REVISED REPORT (11/14/17)

Report was revised as the narrative in the original report did not include a comment that the % lipids requested on the sample submittal form were cancelled by the client. This has been updated in this revised report.

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/19/2017 9:35:00 AM . The samples were received intact, on-ice within nine sealed coolers at -12.7, -24.7, -15.2, -16.8, -12.1, -20.0, -17.3, -16.4, and -30.2 degrees Celsius.

Client requested Lipids Analysis by NOAA1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

The samples were processed following the work instructions provided by the client; EFSR-P-SP-WI11646. All of the samples were defrosted and the tails were then removed from the lobster. The shell was removed, and the meat was weighed, de-veined, and then homogenized before sample prep.

Total solids analysis was performed in accordance with method SM2540B.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B.

The samples were prepped in batch F710239 for % moisture and batch F709439 for total solids. The tail mass was measured in batch F709422.

The samples were prepped in batches F709411 and F710187 for total Mercury. They were analyzed in sequences 7129022 and 7J04013.

Per client request samples 1709491-01 and 1709491-11 were used as the source QC in these batches F710239, F709439, F709411, and F710187.

ANALYTICAL AND QUALITY CONTROL ISSUES

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
14-Nov-17 15:06

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

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Amy Goodall, Project Manager

Sample Receipt Checklist

Client: AMEC Foster Wheeler

Date & Time Received: 9/19/17 9:35

Date Labeled: 9/20/17 Labeled By: vw

Project: _____

Received By: LM

Label Verified By: JCL

of Coolers Received: 9 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y N Temp Blank Used: Y N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

CA 9/19/17

TID: 170404186	CF: 70.1 °C	Date/time: 9/19/17 9:40	By: LM
Cooler 1: -12.80°C	w/ CF: -12.70°C	Cooler 4: -16.86°C	w/ CF: -16.76°C
Cooler 2: -24.80°C	w/ CF: -24.70°C	Cooler 5: -12.20°C	w/ CF: -12.10°C
Cooler 3: -15.31°C	w/ CF: -15.21°C	Cooler 6: -20.10°C	w/ CF: -20.00°C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	Y	
Preservation type:	N/A	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	N	

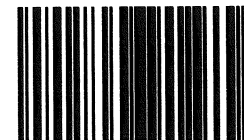
cooler 7: -17.43°C / CF: -17.33°C 8: -16.49°C / CF: -16.39°C 9: -30.26°C / CF: -30.16°C

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	N/A	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4802 2: 7877 6903 7261
 3: 7877 6903 7272 4: 7877 6903 7283
 5: 7877 6903 7294 6: 7877 6903 7309
 7: 7877 6903 7310 8: 7877 6903 7320
 9: 7877 6903 7331

1709491



1709491

Environmental Analysis Request/Chain of Custody



Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101		Matrix		Analyses Requested										For Lab Use Only											
Project Name/#: USDC Penobscot		PN #: 3616166052.04A.055		Preservation Codes										SF #: _____											
Project Manager: Rod Pendleton		P.O. #: C012505850												SCR #: _____											
Sampler: JB		PWSID #:												Preservation Codes											
Phone #:		Quote #:												H = HCl T = Thiosulfate											
State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>												N = HNO ₃ B = NaOH											
														S = H ₂ SO ₄ P = H ₃ PO ₄											
														O = Other											
														Remarks											
Sample Identification		Collection		Grab	Composite	Soil	Sediment	Tissue	Potable	Ground	Surface	Water	Other:	Total # of Containers	Hg-1631ml/Lipid 1991a Zipbag Freeze										
Date	Time																								
1	L9-45_17LT015_091317_LOB_01_TA	091317	08:56	X									X	1	X										
2	L9-45_17LT015_091317_LOB_02_TA	091317	08:56	X									X	1	X										
3	L9-45_17LT015_091317_LOB_03_TA	091317	08:56	X									X	1	X										
4	L9-45_17LT015_091317_LOB_04_TA	091317	08:56	X									X	1	X										
5	L9-45_17LT015_091317_LOB_05_TA	091317	08:56	X									X	1	X										
6	L9-45_17LT015_091317_LOB_06_TA	091317	08:56	X									X	1	X										
7	L9-45_17LT015_091317_LOB_07_TA	091317	08:56	X									X	1	X										
8	L9-45_17LT015_091317_LOB_08_TA	091317	08:56	X									X	1	X										
9	L9-45_17LT016_091317_LOB_09_TA	091317	09:13	X									X	1	X										
10	L9-45_17LT016_091317_LOB_10_TA	091317	09:13	X									X	1	X										
11	L9-45_17LT016_091317_LOB_11_TA	091317	09:13	X									X	1	X										
12	L9-45_17LT016_091317_LOB_12_TA	091317	09:13	X									X	1	X										
13	L9-45_17LT016_091317_LOB_13_TA	091317	09:13	X									X	1	X										
14	L9-45_17LT016_091317_LOB_14_TA	091317	09:13	X									X	1	X										
15	L9-45_17LT017_091317_LOB_15_TA	091317	09:25	X									X	1	X										
16	L9-45_17LT017_091317_LOB_16_TA	091317	09:25	X									X	1	X										
17	L9-45_17LT017_091317_LOB_17_TA	091317	09:25	X									X	1	X										
18	L9-45_17LT017_091317_LOB_18_TA	091317	09:25	X									X	1	X										
19	L9-45_17LT018_091317_LOB_19_TA	091317	09:33	X									X	1	X										
20	L9-45_17LT018_091317_LOB_20_TA	091317	09:33	X									X	1	X										
Turnaround Time Requested (TAT) (please check):		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Relinquished by:		Date	Time	Received by:		Date	Time														
(Rush TAT is subject to laboratory approval and surcharges.)				[Signature]		9/18/2017	1630	[Signature]		9/18/17	9:35														
Notes:				Relinquished by:		Date	Time	Received by:		Date	Time														
								Lisa MHR																	
FedEx # <u>8103 4444 4802</u>		# of Coolers <u>1</u>		Relinquished by:		Date	Time	Received by:		Date	Time														
Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report		Report and EDD to: denise.king@amecfw.com / 978-692-6633						EPCS																	
Data Package Options (please check if required)		High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		Relinquished by:		Date	Time	Received by:		Date	Time														
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		If yes, format: _____		Relinquished by Commercial Carrier:				Temperature upon receipt		-12.70 °C															
				UPS _____ FedEx _____ Other _____																					

Seal: (2)



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:06

L9-45_17LT015_091317_LOB_01_TA
1709491-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1550	8.04	71.8	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	317	1.64	14.7	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	79.6	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	20.4	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	124	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:06

L9-45_17LT015_091317_LOB_02_TA
1709491-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	2950	9.30	83.0	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	549	1.73	15.4	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.4	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.6	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	154	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:06

L9-45_17LT015_091317_LOB_03_TA
1709491-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	746	8.30	74.1	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	139	1.55	13.9	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.3	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.7	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	103	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:06

L9-45_17LT015_091317_LOB_04_TA
1709491-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1910	8.27	73.9	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	359	1.56	13.9	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.2	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.8	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	184	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:06

L9-45_17LT015_091317_LOB_05_TA
1709491-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1420	8.61	76.9	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	257	1.56	13.9	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.9	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.1	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	103	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	



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Chelmsford MA, 01824

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Reported:
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L9-45_17LT015_091317_LOB_06_TA
1709491-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1310	8.35	74.5	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	263	1.68	15.0	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	79.9	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	20.1	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	132	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	

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271 Mill Road
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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:06

L9-45_17LT015_091317_LOB_07_TA
1709491-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	2340	10.0	89.3	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	384	1.64	14.7	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	83.6	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	16.4	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	141	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:06

L9-45_17LT015_091317_LOB_08_TA
1709491-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	3320	9.61	85.8	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	591	1.71	15.3	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.2	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.8	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	184	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	

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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:06

L9-45_17LT016_091317_LOB_09_TA
1709491-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	342	8.02	71.6	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	65.6	1.54	13.7	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.8	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.2	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	94.9	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	

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Project Manager: Denise King

Reported:
14-Nov-17 15:06

L9-45_17LT016_091317_LOB_10_TA
1709491-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1530	9.34	83.4	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	272	1.66	14.8	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.2	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.8	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	157	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	

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Reported:
14-Nov-17 15:06

L9-45_17LT016_091317_LOB_11_TA
1709491-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	676	9.83	87.8	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	120	1.75	15.6	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.2	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.8	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	111	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	

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Reported:
14-Nov-17 15:06

**L9-45_17LT016_091317_LOB_12_TA
1709491-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1360	9.79	87.4	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	247	1.78	15.9	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.8	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.2	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	115	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	



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L9-45_17LT016_091317_LOB_13_TA
1709491-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1190	8.32	74.3	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	220	1.55	13.8	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.4	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.6	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	110	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	



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L9-45_17LT016_091317_LOB_14_TA
1709491-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1590	9.74	87.0	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	286	1.75	15.7	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.0	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.0	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	120	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	

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L9-45_17LT017_091317_LOB_15_TA
1709491-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1180	7.93	70.8	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	223	1.50	13.4	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.1	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.9	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	76.7	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	



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L9-45_17LT017_091317_LOB_16_TA
1709491-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1030	9.03	80.7	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	179	1.57	14.0	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.6	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.4	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	160	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	



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L9-45_17LT017_091317_LOB_17_TA
1709491-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	608	8.65	77.2	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	114	1.63	14.5	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.2	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.8	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	77.1	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	

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L9-45_17LT017_091317_LOB_18_TA
1709491-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	875	7.62	68.0	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	177	1.54	13.7	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	79.8	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	20.2	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	79.4	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	



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L9-45_17LT018_091317_LOB_19_TA
1709491-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	631	8.82	78.8	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	117	1.64	14.7	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.4	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.6	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	92.5	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	



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L9-45_17LT018_091317_LOB_20_TA
1709491-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1210	7.64	68.3	ng/g dry	400	[CALC]	02-Oct-17		03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	240	1.52	13.6	ng/g	400	F710187	02-Oct-17	7J04013	03-Oct-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.1	0.1	0.1	% by Weight	1	F710239	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.9	0.1	0.1	% by Weight	1	F709439	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	88.0	0.10	0.10	g	1	F709422	25-Sep-17		25-Sep-17	None	

AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 14-Nov-17 15:06
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7I29022 - F709411											
Cal Standard (7I29022-CAL1)					Prepared & Analyzed: 29-Sep-17						
Mercury	0.524	-		ng/L	0.50100		105				
Cal Standard (7I29022-CAL2)					Prepared & Analyzed: 29-Sep-17						
Mercury	1.025	-		ng/L	1.0020		102				
Cal Standard (7I29022-CAL3)					Prepared & Analyzed: 29-Sep-17						
Mercury	4.826	-		ng/L	5.0100		96.3				
Cal Standard (7I29022-CAL4)					Prepared & Analyzed: 29-Sep-17						
Mercury	19.95	-		ng/L	20.040		99.6				
Cal Standard (7I29022-CAL5)					Prepared & Analyzed: 29-Sep-17						
Mercury	38.55	-		ng/L	40.080		96.2				
Calibration Blank (7I29022-CCB1)					Prepared & Analyzed: 29-Sep-17						
Mercury	0.045	-		ng/L							
Calibration Blank (7I29022-CCB2)					Prepared & Analyzed: 29-Sep-17						
Mercury	0.080	-		ng/L							
Calibration Blank (7I29022-CCB3)					Prepared & Analyzed: 29-Sep-17						
Mercury	0.017	-		ng/L							
Calibration Blank (7I29022-CCB4)					Prepared & Analyzed: 29-Sep-17						
Mercury	0.026	-		ng/L							
Calibration Blank (7I29022-CCB5)					Prepared & Analyzed: 29-Sep-17						
Mercury	0.073	-		ng/L							

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14-Nov-17 15:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7I29022 - F709411

Calibration Blank (7I29022-CCB6)				Prepared & Analyzed: 29-Sep-17							
Mercury	0.066	-		ng/L							
Calibration Blank (7I29022-CCB7)				Prepared & Analyzed: 29-Sep-17							
Mercury	0.181	-		ng/L							
Calibration Blank (7I29022-CCB8)				Prepared & Analyzed: 29-Sep-17							
Mercury	0.118	-		ng/L							
Calibration Blank (7I29022-CCB9)				Prepared & Analyzed: 29-Sep-17							
Mercury	0.114	-		ng/L							
Calibration Check (7I29022-CCV1)				Prepared & Analyzed: 29-Sep-17							
Mercury	4.891	-		ng/L	5.0000		97.8	77-123			
Calibration Check (7I29022-CCV2)				Prepared & Analyzed: 29-Sep-17							
Mercury	4.964	-		ng/L	5.0000		99.3	77-123			
Calibration Check (7I29022-CCV3)				Prepared & Analyzed: 29-Sep-17							
Mercury	4.909	-		ng/L	5.0000		98.2	77-123			
Calibration Check (7I29022-CCV4)				Prepared & Analyzed: 29-Sep-17							
Mercury	4.894	-		ng/L	5.0000		97.9	77-123			
Calibration Check (7I29022-CCV5)				Prepared & Analyzed: 29-Sep-17							
Mercury	5.271	-		ng/L	5.0000		105	77-123			
Calibration Check (7I29022-CCV6)				Prepared & Analyzed: 29-Sep-17							
Mercury	5.031	-		ng/L	5.0000		101	77-123			

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Reported:
14-Nov-17 15:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7I29022 - F709411

Calibration Check (7I29022-CCV7)					Prepared & Analyzed: 29-Sep-17						
Mercury	5.243	-		ng/L	5.0000		105	77-123			
Calibration Check (7I29022-CCV8)					Prepared & Analyzed: 29-Sep-17						
Mercury	5.146	-		ng/L	5.0000		103	77-123			
Calibration Check (7I29022-CCV9)					Prepared & Analyzed: 29-Sep-17						
Mercury	4.970	-		ng/L	5.0000		99.4	77-123			
Instrument Blank (7I29022-IBL1)					Prepared & Analyzed: 29-Sep-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7I29022-IBL2)					Prepared & Analyzed: 29-Sep-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7I29022-IBL3)					Prepared & Analyzed: 29-Sep-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7I29022-ICV1)					Prepared & Analyzed: 29-Sep-17						
Mercury	4.838	-		ng/L	5.0000		96.8	79-121			

Batch 7J04013 - F710187

Cal Standard (7J04013-CAL1)					Prepared & Analyzed: 03-Oct-17						
Mercury	0.528	-		ng/L	0.50100		105				
Cal Standard (7J04013-CAL2)					Prepared & Analyzed: 03-Oct-17						
Mercury	0.961	-		ng/L	1.0020		95.9				

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J04013 - F710187

Cal Standard (7J04013-CAL3)					Prepared & Analyzed: 03-Oct-17						
Mercury	5.037	-		ng/L	5.0100		101				
Cal Standard (7J04013-CAL4)					Prepared & Analyzed: 03-Oct-17						
Mercury	20.50	-		ng/L	20.040		102				
Cal Standard (7J04013-CAL5)					Prepared & Analyzed: 03-Oct-17						
Mercury	38.07	-		ng/L	40.080		95.0				
Calibration Blank (7J04013-CCB1)					Prepared & Analyzed: 03-Oct-17						
Mercury	0.082	-		ng/L							
Calibration Blank (7J04013-CCB2)					Prepared & Analyzed: 03-Oct-17						
Mercury	0.138	-		ng/L							
Calibration Blank (7J04013-CCB3)					Prepared & Analyzed: 03-Oct-17						
Mercury	0.176	-		ng/L							
Calibration Blank (7J04013-CCB4)					Prepared & Analyzed: 03-Oct-17						
Mercury	0.132	-		ng/L							
Calibration Blank (7J04013-CCB5)					Prepared & Analyzed: 03-Oct-17						
Mercury	0.424	-		ng/L							
Calibration Check (7J04013-CCV1)					Prepared & Analyzed: 03-Oct-17						
Mercury	4.750	-		ng/L	5.0000		95.0	77-123			
Calibration Check (7J04013-CCV2)					Prepared & Analyzed: 03-Oct-17						
Mercury	4.797	-		ng/L	5.0000		95.9	77-123			

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J04013 - F710187											
Calibration Check (7J04013-CCV3)					Prepared & Analyzed: 03-Oct-17						
Mercury	5.020	-		ng/L	5.0000		100	77-123			
Calibration Check (7J04013-CCV4)					Prepared & Analyzed: 03-Oct-17						
Mercury	4.825	-		ng/L	5.0000		96.5	77-123			
Calibration Check (7J04013-CCV5)					Prepared & Analyzed: 03-Oct-17						
Mercury	5.065	-		ng/L	5.0000		101	77-123			
Instrument Blank (7J04013-IBL1)					Prepared & Analyzed: 03-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J04013-IBL2)					Prepared & Analyzed: 03-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J04013-IBL3)					Prepared & Analyzed: 03-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7J04013-ICV1)					Prepared & Analyzed: 03-Oct-17						
Mercury	4.759	-		ng/L	5.0000		95.2	79-121			
Batch F710187 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710187-BLK1)					Prepared: 02-Oct-17 Analyzed: 03-Oct-17						
Mercury	0.132	0.090	0.800	ng/g							J
Blank (F710187-BLK2)					Prepared: 02-Oct-17 Analyzed: 03-Oct-17						
Mercury	0.115	0.090	0.800	ng/g							J

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710187 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710187-BLK3) Prepared: 02-Oct-17 Analyzed: 03-Oct-17											
Mercury	ND	0.090	0.800	ng/g							U
Blank (F710187-BLK4) Prepared: 02-Oct-17 Analyzed: 03-Oct-17											
Mercury	ND	0.088	0.781	ng/g							U, F-03
Blank (F710187-BLK5) Prepared: 02-Oct-17 Analyzed: 03-Oct-17											
Mercury	ND	0.081	0.722	ng/g							U, F-03
LCS (F710187-BS1) Prepared: 02-Oct-17 Analyzed: 03-Oct-17											
Mercury	7.892	0.090	0.800	ng/g	8.0160		98.5	75-125			
LCS (F710187-BS2) Prepared: 02-Oct-17 Analyzed: 03-Oct-17											
Mercury	314.7	3.61	32.3	ng/g	382.50		82.3	75-125			
LCS Dup (F710187-BSD1) Prepared: 02-Oct-17 Analyzed: 03-Oct-17											
Mercury	7.729	0.090	0.800	ng/g	8.0160		96.4	75-125	2.09	24	
Duplicate (F710187-DUP1) Source: 1709491-01RE2 Prepared: 02-Oct-17 Analyzed: 03-Oct-17											
Mercury	149.8	1.67	14.9	ng/g		316.9			71.6	24	QR-08
Duplicate (F710187-DUP2) Source: 1709491-01RE2 Prepared: 02-Oct-17 Analyzed: 03-Oct-17											
Mercury	311.0	1.64	14.7	ng/g		316.9			1.90	24	AD
Matrix Spike (F710187-MS1) Source: 1709491-01RE2 Prepared: 02-Oct-17 Analyzed: 03-Oct-17											
Mercury	597.8	1.65	14.7	ng/g	368.32	316.9	76.3	71-125			
Matrix Spike (F710187-MS2) Source: 1709491-11RE1 Prepared: 02-Oct-17 Analyzed: 03-Oct-17											
Mercury	462.3	1.68	15.0	ng/g	375.23	120.3	91.1	71-125			

Eurofins Frontier Global Sciences, Inc.



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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 14-Nov-17 15:06
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710187 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F710187-MSD1)		Source: 1709491-01RE2		Prepared: 02-Oct-17 Analyzed: 03-Oct-17	
Mercury	612.0	1.67	14.9	ng/g	373.13 316.9 79.1 71-125 3.62 24
Matrix Spike Dup (F710187-MSD2)		Source: 1709491-11RE1		Prepared: 02-Oct-17 Analyzed: 03-Oct-17	
Mercury	471.7	1.76	15.7	ng/g	392.93 120.3 89.4 71-125 1.87 24

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F709439 - EFGS-019 Solids Analysis

Duplicate (F709439-DUP1)		Source: 1709491-01			Prepared: 26-Sep-17 Analyzed: 27-Sep-17						
% Solids	20.2	0.1	0.1	% by Weight		20.4			0.985	25	O-04
Duplicate (F709439-DUP2)		Source: 1709491-11			Prepared: 26-Sep-17 Analyzed: 27-Sep-17						
% Solids	18.2	0.1	0.1	% by Weight		17.8			2.22	25	O-04

Batch F710239 - EFGS-019 Solids Analysis

Duplicate (F710239-DUP1)		Source: 1709491-01			Prepared & Analyzed: 05-Oct-17						
% Moisture	79.8	0.1	0.1	% by Weight		79.6			0.251	10	O-04
Duplicate (F710239-DUP2)		Source: 1709491-11			Prepared & Analyzed: 05-Oct-17						
% Moisture	81.8	0.1	0.1	% by Weight		82.2			0.488	10	O-04

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AMEC Foster Wheeler
 271 Mill Road
 Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
 Project Number: 3616166052.04A.055
 Project Manager: Denise King

Reported:
 14-Nov-17 15:06

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-08 The RPD value for the MS/MSD was outside of acceptance limits. Batch QC acceptable based on matrix duplicate and/or LCS/LCSD RPD values within control limits.
- QM-02 The MS and/or MSD recoveries outside acceptance limits, due to spike concentration less than 1 times the sample concentration. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
- O-04 This sample was analyzed outside of the recommended holding time.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- AS This MS and/or MSD is an analytical spike and/or an analytical spike duplicate.
- AD This matrix duplicate is an analytical duplicate.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference





Frontier Global Sciences

Total Solids Dataset Cover Page

Dataset ID: TS170926-2
Batch ID: F709439/F710239
Work Order(s): 1709491

Analyst: AMB/CLC
Prep. Date: 9/26/2017

Analytical Issues/Explanations:

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: m 10/5/17

Preparation Date: Sep 26, 2017

Batch #: 2

Analyst: AMB/CLC

Batch ID: F709439/F710239

Work Order(s): 1709491

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes	% Moisture
1	1709491-01	1.0450	6.8780	5.8330	2.2370	1.1920	20.4%		79.6%
2	1709491-MD	1.0480	6.6130	5.5650	2.1730	1.1250	20.2%	1.1%	79.8%
3	1709491-02	1.0130	6.3760	5.3630	2.0090	0.9960	18.6%		81.4%
4	1709491-03	0.9900	6.6130	5.6230	2.0390	1.0490	18.7%		81.3%
5	1709491-04	0.9940	6.8360	5.8420	2.0900	1.0960	18.8%		81.2%
6	1709491-05	1.0040	6.6680	5.6640	2.0320	1.0280	18.1%		81.9%
7	1709491-06	1.0200	6.7640	5.7440	2.1720	1.1520	20.1%		79.9%
8	1709491-07	1.0420	6.4550	5.4130	1.9300	0.8880	16.4%		83.6%
9	1709491-08	1.0250	6.6020	5.5770	2.0150	0.9900	17.8%		82.2%
10	1709491-09	0.9880	6.7380	5.7500	2.0940	1.1060	19.2%		80.8%
11	1709491-10	1.0190	6.5800	5.5610	2.0100	0.9910	17.8%		82.2%
12	1709491-11	1.0200	6.6290	5.6090	2.0200	1.0000	17.8%		82.2%
13	1709491-11MD	1.0100	6.1050	5.0950	1.9360	0.9260	18.2%	1.9%	81.8%
14	1709491-12	1.0220	6.2470	5.2250	1.9710	0.9490	18.2%		81.8%
15	1709491-13	0.9930	6.3280	5.3350	1.9850	0.9920	18.6%		81.4%
16	1709491-14	0.9720	6.5320	5.5600	1.9730	1.0010	18.0%		82.0%
17	1709491-15	1.0370	6.3230	5.2860	2.0360	0.9990	18.9%		81.1%
18	1709491-16	0.9850	6.4200	5.4350	1.9320	0.9470	17.4%		82.6%
19	1709491-17	1.0170	6.1280	5.1110	1.9800	0.9630	18.8%		81.2%
20	1709491-18	1.0030	6.4600	5.4570	2.1040	1.1010	20.2%		79.8%
21	1709491-19	0.9880	6.3100	5.3220	1.9770	0.9890	18.6%		81.4%
22	1709491-20	1.0060	6.2410	5.2350	2.0500	1.0440	19.9%		80.1%

PREPARATION BENCH SHEET

F710239

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710239-DUP1	Duplicate [1709491-01]	5	5					
F710239-DUP2	Duplicate [1709491-11]	5	5					

Standard ID(s):

Description:

Expiration:

PREPARATION BENCH SHEET

F710239

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709491-01	L9-45_17LT015_091317_LOB_01_TA	5	5	QC	-	-	MD/MS/MSD	
1709491-02	L9-45_17LT015_091317_LOB_02_TA	5	5	-	-	-		
1709491-03	L9-45_17LT015_091317_LOB_03_TA	5	5	-	-	-		
1709491-04	L9-45_17LT015_091317_LOB_04_TA	5	5	-	-	-		
1709491-05	L9-45_17LT015_091317_LOB_05_TA	5	5	-	-	-		
1709491-06	L9-45_17LT015_091317_LOB_06_TA	5	5	-	-	-		
1709491-07	L9-45_17LT015_091317_LOB_07_TA	5	5	-	-	-		
1709491-08	L9-45_17LT015_091317_LOB_08_TA	5	5	-	-	-		
1709491-09	L9-45_17LT016_091317_LOB_09_TA	5	5	-	-	-		
1709491-10	L9-45_17LT016_091317_LOB_10_TA	5	5	-	-	-		
1709491-11	L9-45_17LT016_091317_LOB_11_TA	5	5	QC	-	-	MS/MSD	
1709491-12	L9-45_17LT016_091317_LOB_12_TA	5	5	-	-	-		
1709491-13	L9-45_17LT016_091317_LOB_13_TA	5	5	-	-	-		
1709491-14	L9-45_17LT016_091317_LOB_14_TA	5	5	-	-	-		
1709491-15	L9-45_17LT017_091317_LOB_15_TA	5	5	-	-	-		
1709491-16	L9-45_17LT017_091317_LOB_16_TA	5	5	-	-	-		
1709491-17	L9-45_17LT017_091317_LOB_17_TA	5	5	-	-	-		
1709491-18	L9-45_17LT017_091317_LOB_18_TA	5	5	-	-	-		
1709491-19	L9-45_17LT018_091317_LOB_19_TA	5	5	-	-	-		

PREPARATION BENCH SHEET

F710239

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

1709491-20	L9-45_17LT018_091317_LOB_20_TA	5	5	-	-	-		
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Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: WF, DH

Date: 9/29/17

Reviewer: DM

Date: 9/27/17

WO #: 1709491

Batch #: F709422

Dataset ID: F709422

Reviewer Initials: DM

General Comments/Re-run requirements:

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date	
<u>WF</u>	<u>5/9/17</u>	<input checked="" type="checkbox"/>
<u>DH</u>	<u>12/13/16</u>	<input checked="" type="checkbox"/>

Reviewer Initials: DM

1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

Density Only - NA this section

<input checked="" type="checkbox"/> DONE		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> N/A
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A

2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
 - (v) Volume (if other than 1 mL): _____ . Can the calculated result be reproduced?

Total Solids Only - NA this section

<input type="checkbox"/> DONE		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A

QUALITY ASSURANCE
 PEER-REVIEWED
 INITIALS: DM 9/27/17

PREPARATION BENCH SHEET

F709422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - No Preparation

Prepared: 9/25/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709491-01	L9-45_17LT015_091317_LOB_01_TA	1	1	QC	-	-	MD/MS/MSD Total Mass of Lobster Ta	
1709491-02	L9-45_17LT015_091317_LOB_02_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-03	L9-45_17LT015_091317_LOB_03_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-04	L9-45_17LT015_091317_LOB_04_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-05	L9-45_17LT015_091317_LOB_05_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-06	L9-45_17LT015_091317_LOB_06_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-07	L9-45_17LT015_091317_LOB_07_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-08	L9-45_17LT015_091317_LOB_08_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-09	L9-45_17LT016_091317_LOB_09_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-10	L9-45_17LT016_091317_LOB_10_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-11	L9-45_17LT016_091317_LOB_11_TA	1	1	QC	-	-	MS/MSD Total Mass of Lobster Tail M	
1709491-12	L9-45_17LT016_091317_LOB_12_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-13	L9-45_17LT016_091317_LOB_13_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-14	L9-45_17LT016_091317_LOB_14_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-15	L9-45_17LT017_091317_LOB_15_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-16	L9-45_17LT017_091317_LOB_16_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-17	L9-45_17LT017_091317_LOB_17_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-18	L9-45_17LT017_091317_LOB_18_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709491-19	L9-45_17LT018_091317_LOB_19_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	

PREPARATION BENCH SHEET

F709422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - No Preparation

Prepared: 9/25/2017

1709491-20	L9-45_17LT018_091317_LOB_20_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
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AmecFW Maine Lobster Special Project 2017- Lobster Homogenization Logbook

Work Order NUMBER	Tech Initials	Date	Thawed Y/N	Balance ID	Tail Weight (g)	Tail de-veined Y/N	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	% Lipids Subsample taken Y/N	Comments
1709491-05	DM	9/22/17	Y	18	102.76	Y	2	Y	
1709490-16	DH	9/22/17	Y	18	125.95	Y	2	Y	
1709491-06	DM	9/22/17	Y	2	131.68	Y	2	Y	
1709490-17	DH	9/22/17	Y	18	132.35	Y	2	Y	
1709491-07	DM	9/22/17	Y	18	140.51	Y	2	Y	
1709490-18	DH	9/22/17	Y	18	85.90	Y	2	Y	
1709492-01	DM	9/22/17	Y	18	83.59	Y	2	Y	
1709490-19	DH	9/22/17	Y	18	104.42	Y	2	Y	
1709492-02	AMB	9/22/17	Y	2	144.08	Y	2	Y	1709490-19 9/22/17
1709490-20	DH	9/22/17	Y	2	95.76	Y	2	Y	
1709492-03	AMB	9/22/17	Y	2	113.22	Y	2	Y	
1709492-04	DM	9/22/17	Y	18	72.48	Y	2	Y	
1709491-01	PL	9/22/17	Y	18	124.46	Y	2	Y	
1709492-05	DM	9/22/17	Y	18	108.55	Y	2	Y	
1709491-02	PL	9/22/17	Y	18	153.83	Y	2	Y	
1709492-06	DM	9/22/17	Y	18	195.68	Y	2	Y	
1709491-03	PL	9/22/17	Y	18	102.57	Y	2	Y	
1709492-07	DM	9/22/17	Y	18	156.22	Y	2	Y	

AmecFW Maine Lobster Special Project 2017- Lobster Homogenization Logbook

Work Order NUMBER	Tech Initials	Date	Thawed Y/ N	Balance ID	Tail Weight (g)	Tail de-veined Y/ N	Blender Type 1 = Robot Co upe 2 = Magic Bullet 3= Other	% Lipids Subsample taken Y/N	Comments
1709489-19	AMB	9/21/17	Y	18	68.54	Y	2	Y	
1709489-20	AMB	9/21/17	Y	18	100.87	Y	2	Y	
1709490-01	DH	9/22/17	Y	18	83.41	Y	2	Y	
1709490-02	DH	9/22/17	Y	18	110.56	Y	2	Y	
1709490-03	DH	9/22/17	Y	18	137.90	Y	2	Y	
1709490-04	DH	9/22/17	Y	18	143.40	Y	2	Y	
1709490-05	DH	9/22/17	Y	18	198.36	Y	2	Y	
1709490-06	DH	9/22/17	Y	18	69.36	Y	2	Y	
1709490-07	DH	9/22/17	Y	18	130.43	Y	2	Y	
1709490-08	DM	9-22-17	Y	18	105.67	Y	2	Y	
1709490-09	DM	9/22/17	Y	18	142.60	Y	2	Y	
1709490-10	DM	9/22/17	Y	18	152.23	Y	2	Y	
1709490-11	DH	9/22/17	Y	18	77.87	Y	2	Y	
1709490-12	DH	9/22/17	Y	18	140.72	Y	2	Y	
1709490-13	DH	9/22/17	Y	18	105.46	Y	2	Y	
1709490-14	DH	9/22/17	Y	18	100.55	Y	2	Y	
1709491-01	DM	9/22/17	Y	18	154.11	Y	2	Y	
1709490-15	DH	9/22/17	Y	18	151.98	Y	2	Y	1709490-15 9/22/17

9/22/17

AmecFW Maine Lobster Special Project 2017- Lobster Homogenization Logbook

Work Order NUMBER	Tech Initials	Date	Thawed Y/ N	Balance ID	Tail Weight (g)	Tail de-veined Y/ N	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	% Lipids Subsample taken Y/N	Comments
1709493-20	DH	9/25/17	Y	18	77.11	Y	2	Y	
1709491-A	DM	9/25/17	Y	18	92.51	Y	2	Y	
1709491-20	DM	9/25/17	Y	18	88.04	Y	2	Y	
1709491-08	DH	9/25/17	Y	18	183.60	Y	2	Y	
1709491-09	DH	9/25/17	Y	18	94.89	Y	2	Y	
1709491-10	DH	9/25/17	Y	18	156.70	Y	2	Y	
1709491-11	DH	9/25/17	Y	18	111.12	Y	2	Y	
1709491-12	DH	9/25/17	Y	18	114.53	Y	2	Y	
1709491-13	DH	9/25/17	Y	18	110.21	Y	2	Y	
1709491-14	DH	9/25/17	Y	18	120.48	Y	2	Y	

AmecFW Maine Lobster Special Project 2017- Lobster Homogenization Logbook

Work Order NUMBER	Tech Initials	Date	Thawed Y/ N	Balance ID	Tail Weight (g)	Tail de-veined Y/ N	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	% Lipids Subsample taken Y/N	Comments
1709493-06	DH	9/25/17	Y	18	85.13	Y	2	Y	
1709493-07	DH	9/25/17	Y	2	148.89	Y	2	Y	
1709493-08	DM	9/25/17	Y	18	81.97	Y	2	Y	
1709493-09	DM	9/25/17	Y	18	66.20	Y	2	Y	
1709493-15	DH	9/25/17	Y	2	84.39	Y	2	Y	
1709493-10	DM	9/25/17	Y	18	82.77	Y	2	Y	
1709493-16	DH	9/25/17	Y	18	121.11	Y	2	Y	
1709493-11	DM	9/25/17	Y	18	111.88	Y	2	Y	
1709493-12	DM	9/25/17	Y	18	83.17	Y	2	Y	
1709493-13	DM	9/25/17	Y	18	84.42	Y	2	Y	
1709493-14	DM	9/25/17	Y	18	93.95	Y	2	Y	
1709493-15	DM	9/25/17	Y	18	72.73	Y	2	Y	
1709493-17	DH	9/25/17	Y	18	102.14	Y	2	Y	
1709493-16	DM	9/25/17	Y	18	159.83	Y	2	Y	
1709493-18	DH	9/25/17	Y	18	124.74	Y	2	Y	
1709493-17	DM	9/25/17	Y	18	77.14	Y	2	Y	
1709493-19	DH	9/25/17	Y	18	64.45	Y	2	Y	
1709493-18	DM	9/25/17	Y	18	79.43	Y	2	Y	

DM 9/25/17
1709493
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DM 9/25/17
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1709493



Frontier Global Sciences

Total Solids Dataset Cover Page

Dataset ID: TS170926-2
Batch ID: F709439
Work Order(s): 1709491

Analyst: AMB/CLC
Prep. Date: 9/26/2017

Analytical Issues/Explanations:

QUALITY ASSURANCE
PEER-REVIEWED
INITIALS: DM 9/28/17

PREPARATION BENCH SHEET

F709439

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-019 Solids Analysis

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	μ l Spike1	Spike2 ID	μ l Spike2	Extraction Comments
F709439-DUP1	Duplicate [1709491-01]	5	5					
F709439-DUP2	Duplicate [1709491-11]	5	5					

Standard ID(s): Description:

Expiration:

PREPARATION BENCH SHEET

F709439

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-019 Solids Analysis

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709491-01	L9-45_17LT015_091317_LOB_01_TA	5	5	QC	-	-	MD/MS/MSD	
1709491-02	L9-45_17LT015_091317_LOB_02_TA	5	5	-	-	-		
1709491-03	L9-45_17LT015_091317_LOB_03_TA	5	5	-	-	-		
1709491-04	L9-45_17LT015_091317_LOB_04_TA	5	5	-	-	-		
1709491-05	L9-45_17LT015_091317_LOB_05_TA	5	5	-	-	-		
1709491-06	L9-45_17LT015_091317_LOB_06_TA	5	5	-	-	-		
1709491-07	L9-45_17LT015_091317_LOB_07_TA	5	5	-	-	-		
1709491-08	L9-45_17LT015_091317_LOB_08_TA	5	5	-	-	-		
1709491-09	L9-45_17LT016_091317_LOB_09_TA	5	5	-	-	-		
1709491-10	L9-45_17LT016_091317_LOB_10_TA	5	5	-	-	-		
1709491-11	L9-45_17LT016_091317_LOB_11_TA	5	5	QC	-	-	MS/MSD	
1709491-12	L9-45_17LT016_091317_LOB_12_TA	5	5	-	-	-		
1709491-13	L9-45_17LT016_091317_LOB_13_TA	5	5	-	-	-		
1709491-14	L9-45_17LT016_091317_LOB_14_TA	5	5	-	-	-		
1709491-15	L9-45_17LT017_091317_LOB_15_TA	5	5	-	-	-		
1709491-16	L9-45_17LT017_091317_LOB_16_TA	5	5	-	-	-		
1709491-17	L9-45_17LT017_091317_LOB_17_TA	5	5	-	-	-		
1709491-18	L9-45_17LT017_091317_LOB_18_TA	5	5	-	-	-		
1709491-19	L9-45_17LT018_091317_LOB_19_TA	5	5	-	-	-		

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709439

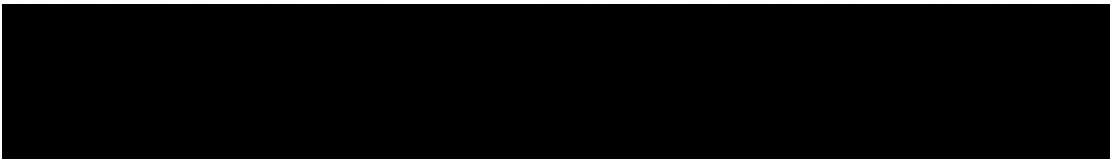
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-019 Solids Analysis

Prepared: 9/26/2017

1709491-20	L9-45_17LT018_091317_LOB_20_TA	5	5	-	-	-		
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Remote Lab Total Solids Logbook

Lab Technician(s): AMB /cc Batch: F709439 Date: 9-26-17 Page 1 of 1
 Thermometer #: 120A05136T1 Oven #: DVN-01 Actual temperature: 103.7 (Range 103-105°C)
 Balance #¹: 0 Start time: 1920 End time²: 1937 ^{9/27/17} Time re-weighed³: 1512
 Client(s)/WO#: 1709491

Sample ID	Pan #	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Notes
1709491-01	A1	1.045	6.878	2.237	
F709439-DUP1	A2	1.048	6.613	2.173	Source: 1709491-01
1709491-02	A3	1.013	6.376	2.009	
1709491-03	A4	0.990	6.613	2.039	
1709491-04	A5	0.994	6.836	2.090	
1709491-05	A6	1.004	6.668	2.032	
1709491-06	A7	1.020	6.764	2.172	
1709491-07	A8	1.042	6.455	1.930	
1709491-08	A9	1.025	6.602	2.015	
1709491-09	A10	0.988	6.738	2.094	
1709491-10	A11	1.019	6.580	2.010	
1709491-11	A12	1.020	6.629	2.020	
F709439-DUP2	A13	1.010	6.105	1.936	Source: 1709491-11
1709491-12	A14	1.022	6.247	1.971	
1709491-13	A15	0.993	6.328	1.985	
1709491-14	A16	0.972	6.532	1.973	
1709491-15	A17	1.037	6.323	2.036	
1709491-16	A18	0.985	6.420	1.932	
1709491-17	A19	1.017	6.128	1.980	
1709491-18	A20	1.003	6.460	2.104	
1709491-19	A21	0.988	6.310	1.977	
1709491-20	A22	1.006	6.241	2.050	
<u>AMB 9-26-17</u>					

Comments:

¹The same balance must be used to weight samples before and after ovening.

²Samples must be ovened over 12 hours.

³Samples must be re-weighed within 30 minutes of oven cool down.

Preparation Date: Sep 26, 2017

Batch #: 2

Analyst: AMB/CLC

Batch ID: F709439

Work Order(s): 1709491

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes
1	1709491-01	1.0450	6.8780	5.8330	2.2370	1.1920	20.4%	
2	1709491-MD	1.0480	6.6130	5.5650	2.1730	1.1250	20.2%	1.1%
3	1709491-02	1.0130	6.3760	5.3630	2.0090	0.9960	18.6%	
4	1709491-03	0.9900	6.6130	5.6230	2.0390	1.0490	18.7%	
5	1709491-04	0.9940	6.8360	5.8420	2.0900	1.0960	18.8%	
6	1709491-05	1.0040	6.6680	5.6640	2.0320	1.0280	18.1%	
7	1709491-06	1.0200	6.7640	5.7440	2.1720	1.1520	20.1%	
8	1709491-07	1.0420	6.4550	5.4130	1.9300	0.8880	16.4%	
9	1709491-08	1.0250	6.6020	5.5770	2.0150	0.9900	17.8%	
10	1709491-09	0.9880	6.7380	5.7500	2.0940	1.1060	19.2%	
11	1709491-10	1.0190	6.5800	5.5610	2.0100	0.9910	17.8%	
12	1709491-11	1.0200	6.6290	5.6090	2.0200	1.0000	17.8%	
13	1709491-11MD	1.0100	6.1050	5.0950	1.9360	0.9260	18.2%	1.9%
14	1709491-12	1.0220	6.2470	5.2250	1.9710	0.9490	18.2%	
15	1709491-13	0.9930	6.3280	5.3350	1.9850	0.9920	18.6%	
16	1709491-14	0.9720	6.5320	5.5600	1.9730	1.0010	18.0%	
17	1709491-15	1.0370	6.3230	5.2860	2.0360	0.9990	18.9%	
18	1709491-16	0.9850	6.4200	5.4350	1.9320	0.9470	17.4%	
19	1709491-17	1.0170	6.1280	5.1110	1.9800	0.9630	18.8%	
20	1709491-18	1.0030	6.4600	5.4570	2.1040	1.1010	20.2%	
21	1709491-19	0.9880	6.3100	5.3220	1.9770	0.9890	18.6%	
22	1709491-20	1.0060	6.2410	5.2350	2.0500	1.0440	19.9%	

Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: CLL/AMB

Date: 9/27/17

Reviewer: DM

Date: 9/28/17

WO #: 1709491

Batch #: F709439

Dataset ID: TS170926-2

Reviewer Initials: DM

General Comments/Re-run requirements:

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date
<u>CLL</u>	<u>12/20/16</u>

Reviewer Initials: DM

1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

Density Only - NA this section

<input checked="" type="checkbox"/> DONE		<input type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input type="checkbox"/>

2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
 - (v) Volume (if other than 1 mL): _____ Can the calculated result be reproduced?

Total Solids Only - NA this section

<input type="checkbox"/> DONE		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input type="checkbox"/>



Frontier Global Sciences

THg26003-170929-1

Analysis Datasheet for Total Mercury

Date of Analysis: September 29, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7129022

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	58.55 units	117.09	54.91 units	109.82	104.9 %Rec
SEQ-CAL2	1	1.00 ng/L	110.97 units	110.97	107.34 units	107.34	102.5 %Rec
SEQ-CAL3	1	5.00 ng/L	509.11 units	101.82	505.48 units	101.10	96.5 %Rec
SEQ-CAL4	1	20.00 ng/L	2093.28 units	104.66	2089.64 units	104.48	99.8 %Rec
SEQ-CAL5	1	40.00 ng/L	4040.77 units	101.02	4037.13 units	100.93	96.4 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 104.73 +/- 3.89 3.7% RSD 107.11

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	3.64 units	±1.15	0.03 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.466 ng/L	±0.162
BLK	2	3	1.064 ng/L	±0.867
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: R qh/vx

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	CAL	SEQ-IBL1	1	9/29/2017 9:05:00	76584-1.RAW	9:05:00 AM	2.64			-1.0	-0.010	-0.010	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	9/29/2017 9:09:08	76585-1.RAW	9:09:08 AM	3.38			-0.3	-0.002	-0.002	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	9/29/2017 9:13:17	76586-1.RAW	9:13:17 AM	4.89			1.3	0.012	0.012	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	9/29/2017 9:17:25	76587-1.RAW	9:17:25 AM	58.55			54.9	0.524	0.524	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	9/29/2017 9:21:33	76588-1.RAW	9:21:33 AM	110.97			107.3	1.025	1.025	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	9/29/2017 9:25:42	76589-1.RAW	9:25:42 AM	509.11			505.5	4.826	4.826	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	9/29/2017 9:29:50	76590-1.RAW	9:29:50 AM	2093.28			2089.6	19.952	19.952	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	9/29/2017 9:33:59	76591-1.RAW	9:33:59 AM	4040.77			4037.1	38.547	38.547	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	9/29/2017 9:38:07	76592-1.RAW	9:38:07 AM	510.30			506.7	4.838	4.838	ng/L	
Hg2600-3	BC	SAM	ws		9/29/2017 9:54:29	76593-1.RAW	9:54:29 AM	10.46		X	6.8	0.065	0.000	ng/L	
Hg2600-3	BC	BLK	F709411-BLK1	20	9/29/2017 9:58:38	76594-1.RAW	9:58:38 AM	11.41		1	7.8	0.074	1.485	ng/L	
Hg2600-3	BC	BLK	F709411-BLK2	20	9/29/2017 10:02:46	76595-1.RAW	10:02:46 AM	12.11		1	8.5	0.081	1.618	ng/L	
Hg2600-3	BC	BLK	F709411-BLK3	20	9/29/2017 10:06:55	76596-1.RAW	10:06:55 AM	10.42		1	6.8	0.065	1.296	ng/L	
Hg2600-3	BC	SAM	*F709411-BLK4	20	9/29/2017 10:11:03	76597-1.RAW	10:11:03 AM	9.21		1	5.6	-0.020	-0.402	ng/L	
Hg2600-3	BC	SAM	*F709411-BLK5	20	9/29/2017 10:15:12	76598-1.RAW	10:15:12 AM	7.28		1	3.6	-0.039	-0.770	ng/L	
Hg2600-3	BC	SAM	F709411-BS1	20	9/29/2017 10:19:20	76599-1.RAW	10:19:20 AM	1035.24		1	1031.6	9.777	195.532	ng/L	
Hg2600-3	BC	SAM	F709411-BSD1	20	9/29/2017 10:23:29	76600-1.RAW	10:23:29 AM	1054.25		1	1050.6	9.958	199.163	ng/L	
Hg2600-3	BC	SAM	F709411-BS2	400	9/29/2017 10:27:37	76601-1.RAW	10:27:37 AM	526.34		1	522.7	4.987	1994.877	ng/L	
Hg2600-3	BC	SAM	1709491-01	100	9/29/2017 10:31:46	76602-1.RAW	10:31:46 AM	6062.82		1	6059.2	57.839	5783.948	ng/L	
Hg2600-3	BC	SAM	ws		9/29/2017 10:36:18	76604-1.RAW	10:36:18 AM	32.17		X	28.5	0.272	0.000	ng/L	
Hg2600-3	BC	SAM	ws		9/29/2017 10:40:27	76605-1.RAW	10:40:27 AM	4.29		X	0.7	0.006	0.000	ng/L	
Hg2600-3	BC	SAM	1709491-02	400	9/29/2017 10:44:35	76603-2.RAW	10:44:35 AM	2012.64		1	2009.0	19.179	7671.472	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	9/29/2017 10:48:44	76606-1.RAW	10:48:44 AM	515.86			512.2	4.891	4.891	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	9/29/2017 10:52:52	76607-1.RAW	10:52:52 AM	8.37			4.7	0.045	0.045	ng/L	
Hg2600-3	BC	SAM	1709491-01RE1	400	9/29/2017 10:57:01	76608-1.RAW	10:57:01 AM	1202.28		1	1198.6	11.441	4576.477	ng/L	
Hg2600-3	BC	SAM	1709491-03	400	9/29/2017 11:01:09	76609-1.RAW	11:01:09 AM	584.21		1	580.6	5.540	2215.922	ng/L	
Hg2600-3	BC	SAM	1709491-04	400	9/29/2017 11:05:18	76610-1.RAW	11:05:18 AM	1476.41		1	1472.8	14.059	5623.459	ng/L	
Hg2600-3	BC	SAM	1709491-05	400	9/29/2017 11:09:26	76611-1.RAW	11:09:26 AM	1008.12		1	1004.5	9.587	3834.912	ng/L	
Hg2600-3	BC	SAM	1709491-06	400	9/29/2017 11:13:34	76612-1.RAW	11:13:34 AM	939.09		1	935.5	8.928	3571.298	ng/L	
Hg2600-3	BC	SAM	1709491-07	400	9/29/2017 11:17:43	76613-1.RAW	11:17:43 AM	1401.34		1	1397.7	13.342	5336.748	ng/L	
Hg2600-3	BC	SAM	1709491-08	400	9/29/2017 11:21:51	76614-1.RAW	11:21:51 AM	2081.96		1	2078.3	19.841	7936.217	ng/L	
Hg2600-3	BC	SAM	1709491-09	400	9/29/2017 11:26:00	76615-1.RAW	11:26:00 AM	251.29		1	247.7	2.361	944.408	ng/L	
Hg2600-3	BC	SAM	1709491-10	400	9/29/2017 11:30:08	76616-1.RAW	11:30:08 AM	983.21		1	979.6	9.349	3739.786	ng/L	
Hg2600-3	BC	SAM	1709491-11	400	9/29/2017 11:34:17	76617-1.RAW	11:34:17 AM	431.84		1	428.2	4.085	1633.963	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	9/29/2017 11:38:25	76618-1.RAW	11:38:25 AM	523.50			519.9	4.964	4.964	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	9/29/2017 11:42:33	76619-1.RAW	11:42:33 AM	12.06			8.4	0.080	0.080	ng/L	
Hg2600-3	BC	SAM	1709491-12	400	9/29/2017 11:46:42	76620-1.RAW	11:46:42 AM	938.92		1	935.3	8.927	3570.633	ng/L	
Hg2600-3	BC	SAM	1709491-13	400	9/29/2017 11:50:50	76621-1.RAW	11:50:50 AM	863.36		1	859.7	8.205	3282.062	ng/L	
Hg2600-3	BC	SAM	1709491-14	400	9/29/2017 11:54:59	76622-1.RAW	11:54:59 AM	1059.33		1	1055.7	10.076	4030.511	ng/L	
Hg2600-3	BC	SAM	1709491-15	400	9/29/2017 11:59:07	76623-1.RAW	11:59:07 AM	915.20		1	911.6	8.700	3480.058	ng/L	
Hg2600-3	BC	SAM	1709491-16	400	9/29/2017 12:03:16	76624-1.RAW	12:03:16 PM	702.77		1	699.1	6.672	2668.701	ng/L	
Hg2600-3	BC	SAM	1709491-17	400	9/29/2017 12:07:24	76625-1.RAW	12:07:24 PM	415.90		1	412.3	3.933	1573.069	ng/L	
Hg2600-3	BC	SAM	1709491-18	400	9/29/2017 12:11:33	76626-1.RAW	12:11:33 PM	709.70		1	706.1	6.738	2695.168	ng/L	
Hg2600-3	BC	SAM	1709491-19	400	9/29/2017 12:15:41	76627-1.RAW	12:15:41 PM	426.50		1	422.9	4.034	1613.572	ng/L	
Hg2600-3	BC	SAM	1709491-20	400	9/29/2017 12:19:49	76628-1.RAW	12:19:49 PM	988.77		1	985.1	9.403	3761.032	ng/L	
Hg2600-3	BC	SAM	F709411-DUP1	400	9/29/2017 12:23:58	76629-1.RAW	12:23:58 PM	571.24		1	567.6	5.416	2166.362	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	9/29/2017 12:28:06	76630-1.RAW	12:28:06 PM	517.81			514.2	4.909	4.909	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	9/29/2017 12:32:15	76631-1.RAW	12:32:15 PM	5.46			1.8	0.017	0.017	ng/L	
Hg2600-3	BC	SAM	F709411-MS1	400	9/29/2017 12:36:23	76632-1.RAW	12:36:23 PM	2355.34		1	2351.7	22.451	8980.311	ng/L	
Hg2600-3	BC	SAM	F709411-MSD1	400	9/29/2017 12:40:32	76633-1.RAW	12:40:32 PM	2338.40		1	2334.8	22.289	8915.628	ng/L	
Hg2600-3	BC	SAM	F709411-MS2	400	9/29/2017 12:44:40	76634-1.RAW	12:44:40 PM	1727.58		1	1723.9	16.457	6582.745	ng/L	
Hg2600-3	BC	SAM	F709411-MSD2	400	9/29/2017 12:48:49	76635-1.RAW	12:48:49 PM	1725.95		1	1722.3	16.441	6576.517	ng/L	
Hg2600-3	BC	SAM	F709411-DUP2	400	9/29/2017 12:52:57	76636-1.RAW	12:52:57 PM	1322.12		1	1318.5	12.585	5034.194	ng/L	
Hg2600-3	BC	BLK	F709455-BLK1	20	9/29/2017 12:57:31	76637-2.RAW	12:57:31 PM	14.32		2	10.7	0.102	2.041	ng/L	
Hg2600-3	BC	BLK	F709455-BLK2	20	9/29/2017 13:01:39	76638-1.RAW	1:01:39 PM	7.62		2	4.0	0.038	0.762	ng/L	
Hg2600-3	BC	BLK	F709455-BLK3	20	9/29/2017 13:05:48	76639-1.RAW	1:05:48 PM	5.67		2	2.0	0.019	0.388	ng/L	
Hg2600-3	BC	SAM	*F709455-BLK4	20	9/29/2017 13:09:56	76640-1.RAW	1:09:56 PM	10.69		2	7.1	0.014	0.284	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	SAM	*F709455-BLK5	20	9/29/2017 13:14:05	76641-1.RAW	1:14:05 PM	5.68	2		2.0	-0.034	-0.673	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	9/29/2017 13:18:13	76642-1.RAW	1:18:13 PM	516.19			512.6	4.894	4.894	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB4	1	9/29/2017 13:22:22	76643-1.RAW	1:22:22 PM	6.40			2.8	0.026	0.026	ng/L	
Hg2600-3	BC	SAM	1709632-01	400	9/29/2017 13:26:30	76644-1.RAW	1:26:30 PM	693.65	2		690.0	6.586	2634.287	ng/L	
Hg2600-3	BC	SAM	F709455-BS1	20	9/29/2017 13:30:38	76645-1.RAW	1:30:38 PM	534.87	2		531.2	5.019	100.382	ng/L	
Hg2600-3	BC	SAM	F709455-BSD1	20	9/29/2017 13:34:47	76646-1.RAW	1:34:47 PM	523.19	2		519.6	4.908	98.152	ng/L	
Hg2600-3	BC	SAM	F709455-BS2	400	9/29/2017 13:41:56	76647-1.RAW	1:41:56 PM	629.33	2		625.7	5.972	2388.640	ng/L	
Hg2600-3	BC	SAM	1709632-02	400	9/29/2017 13:48:55	76648-1.RAW	1:48:55 PM	524.07	2		520.4	4.967	1986.627	ng/L	
Hg2600-3	BC	SAM	1709632-03	400	9/29/2017 13:53:03	76649-1.RAW	1:53:03 PM	1217.01	2		1213.4	11.583	4633.120	ng/L	
Hg2600-3	BC	SAM	1709632-04	400	9/29/2017 13:57:12	76650-1.RAW	1:57:12 PM	1073.12	2		1069.5	10.209	4083.582	ng/L	
Hg2600-3	BC	SAM	1709632-05	400	9/29/2017 14:01:20	76651-1.RAW	2:01:20 PM	455.856028	2		452.2	4.315	1726.088	ng/L	
Hg2600-3	BC	SAM	1709632-06	400	9/29/2017 14:05:29	76652-1.RAW	2:05:29 PM	666.26	2		662.6	6.324	2529.658	ng/L	
Hg2600-3	BC	SAM	1709632-07	400	9/29/2017 14:09:37	76653-1.RAW	2:09:37 PM	6355.87	2		6352.2	60.650	24259.813	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	9/29/2017 14:13:46	76654-1.RAW	2:13:46 PM	555.65			552.0	5.271	5.271	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	9/29/2017 14:17:54	76655-1.RAW	2:17:54 PM	11.33			7.7	0.073	0.073	ng/L	
Hg2600-3	BC	SAM	1709632-08	400	9/29/2017 14:22:02	76656-1.RAW	2:22:02 PM	647.92	2		644.3	6.149	2459.613	ng/L	
Hg2600-3	BC	SAM	1709632-09	400	9/29/2017 14:26:11	76657-1.RAW	2:26:11 PM	1876.08	2		1872.4	17.876	7150.316	ng/L	
Hg2600-3	BC	SAM	1709632-10	400	9/29/2017 14:30:19	76658-1.RAW	2:30:19 PM	813.68	2		810.0	7.732	3092.708	ng/L	
Hg2600-3	BC	SAM	1709632-11	400	9/29/2017 14:34:28	76659-1.RAW	2:34:28 PM	926.39	2		922.8	8.808	3523.193	ng/L	
Hg2600-3	BC	SAM	1709632-12	400	9/29/2017 14:38:36	76660-1.RAW	2:38:36 PM	481.25	2		477.6	4.558	1823.068	ng/L	
Hg2600-3	BC	SAM	1709632-13	400	9/29/2017 14:42:45	76661-1.RAW	2:42:45 PM	854.36	2		850.7	8.120	3248.085	ng/L	
Hg2600-3	BC	SAM	1709632-14	400	9/29/2017 14:46:53	76662-1.RAW	2:46:53 PM	638.68	2		635.0	6.061	2424.349	ng/L	
Hg2600-3	BC	SAM	1709632-15	400	9/29/2017 14:51:02	76663-1.RAW	2:51:02 PM	705.13	2		701.5	6.695	2678.125	ng/L	
Hg2600-3	BC	SAM	1709632-16	400	9/29/2017 14:55:10	76664-1.RAW	2:55:10 PM	824.92	2		821.3	7.839	3135.635	ng/L	
Hg2600-3	BC	SAM	1709632-17	400	9/29/2017 14:59:18	76665-1.RAW	2:59:18 PM	676.20	2		672.6	6.419	2567.626	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	9/29/2017 15:03:27	76666-1.RAW	3:03:27 PM	530.57			526.9	5.031	5.031	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	9/29/2017 15:07:35	76667-1.RAW	3:07:35 PM	10.51			6.9	0.066	0.066	ng/L	
Hg2600-3	BC	SAM	1709632-18	400	9/29/2017 15:11:44	76668-1.RAW	3:11:44 PM	1794.87	2		1791.2	17.100	6840.137	ng/L	
Hg2600-3	BC	SAM	1709632-19	400	9/29/2017 15:15:52	76669-1.RAW	3:15:52 PM	2460.08	2		2456.4	23.452	9380.760	ng/L	
Hg2600-3	BC	SAM	1709632-20	400	9/29/2017 15:20:01	76670-1.RAW	3:20:01 PM	941.20	2		937.6	8.949	3579.765	ng/L	
Hg2600-3	BC	SAM	1709632-07RE1	1000	9/29/2017 15:24:09	76671-1.RAW	3:24:09 PM	2372.36	2		2368.7	22.616	22615.928	ng/L	
Hg2600-3	BC	SAM	F709455-DUP1	400	9/29/2017 15:28:17	76672-1.RAW	3:28:17 PM	701.39	2		697.8	6.660	2663.839	ng/L	
Hg2600-3	BC	SAM	F709455-MS1	400	9/29/2017 15:32:26	76673-1.RAW	3:32:26 PM	2045.49	2		2041.9	19.493	7797.316	ng/L	
Hg2600-3	BC	SAM	F709455-MSD1	400	9/29/2017 15:36:34	76674-1.RAW	3:36:34 PM	1902.55	2		1898.9	18.128	7251.386	ng/L	
Hg2600-3	BC	SAM	F709455-MS2	400	9/29/2017 15:40:43	76675-1.RAW	3:40:43 PM	8136.00	2		8132.4	77.647	31058.601	ng/L	
Hg2600-3	BC	SAM	F709455-MSD2	400	9/29/2017 15:44:51	76676-1.RAW	3:44:51 PM	7972.63	2		7969.0	76.087	30434.676	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	9/29/2017 15:49:00	76677-1.RAW	3:49:00 PM	552.73			549.1	5.243	5.243	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	9/29/2017 15:53:08	76678-1.RAW	3:53:08 PM	22.54			18.9	0.181	0.181	ng/L	
Hg2600-3	BC	SAM	WS		9/29/2017 16:00:29	76679-2.RAW	4:00:29 PM	7929.31	X		7925.7	75.676	0.000	ng/L	
Hg2600-3	BC	SAM	F709455-MS3	1000	9/29/2017 16:04:38	76680-1.RAW	4:04:38 PM	3543.03	2		3539.4	33.794	33793.663	ng/L	
Hg2600-3	BC	SAM	F709455-MSD3	1000	9/29/2017 16:08:46	76681-1.RAW	4:08:46 PM	3433.26	2		3429.6	32.746	32745.540	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	9/29/2017 16:12:55	76682-1.RAW	4:12:55 PM	542.59			539.0	5.146	5.146	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8	1	9/29/2017 16:17:03	76683-1.RAW	4:17:03 PM	15.96			12.3	0.118	0.118	ng/L	
Hg2600-3	BC	SAM	CLEAN		9/29/2017 16:56:00	76684-1.RAW	4:56:00 PM	35.89	X		32.2	0.308	0.000	ng/L	
Hg2600-3	BC	SAM	WS		9/29/2017 17:00:08	76685-1.RAW	5:00:08 PM	5.57	X		1.9	0.018	0.000	ng/L	
Hg2600-3	BC	SAM	F709455-MS4	2500	9/29/2017 17:04:17	76686-1.RAW	5:04:17 PM	3064.16	2		3060.5	29.222	73054.842	ng/L	
Hg2600-3	BC	SAM	F709455-MSD4	2500	9/29/2017 17:08:25	76687-1.RAW	5:08:25 PM	3052.48	2		3048.8	29.110	72776.122	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV9	1	9/29/2017 17:12:34	76688-1.RAW	5:12:34 PM	524.15			520.5	4.970	4.970	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB9	1	9/29/2017 17:16:42	76689-1.RAW	5:16:42 PM	15.58			11.9	0.114	0.114	ng/L	

Total Mercury
 EPA1631
 Operat: BC
 Workst: THg2500
 Method: ### R:
 Descrp: THg25003-170929-1

Blanks: 3.6355
 CalibFa: 104.73
 Status: 0.9999
 R²: 0.9997

Conc = (Area-3.635
 QC Warnings:6/QC E
 Run Date: 9/29/2017
 Run Time: 16:53:08

Blank SD: 1.147052466
 Blank RSD%: 31.55178032
 CF SD: 3.886456733
 CF RSD%: 3.710854284

SampleID	Location	Rinses	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ref)	Flags	RunCount	Comment
CLEAN				0.00		2.26				76579-1.RAW	8:45:35	237.08	Clean	OK	1	
CLEAN										76580-1.RAW	8:48:26	0.00	Clean	NP	1	
WS				3.64	0.00					76581-1.RAW	8:52:34	2.26	Sample	OK	1	
WS				3.64	0.00					76582-1.RAW	8:56:43	1.87	Sample	OK	1	
WS				3.64	0.00					76583-1.RAW	9:00:51	0.75	Sample	OK	1	
SEQ-IBL1	A1		1	0.00	0.03					76584-1.RAW	9:05:00	2.64	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.03					76585-1.RAW	9:09:08	3.38	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.05					76586-1.RAW	9:13:17	4.89	Sample	OK	1	
SEQ-CAL1	A4		1	3.64	0.52		104.86			76587-1.RAW	9:17:25	58.55	Sample	OK	1	
SEQ-CAL2	A5		1	3.64	1.02		102.49			76588-1.RAW	9:21:33	110.97	Sample	OK	1	
SEQ-CAL3	A6		1	3.64	4.83		96.53			76589-1.RAW	9:25:42	509.11	Sample	OK	1	
SEQ-CAL4	A7		1	3.64	19.95		99.76			76590-1.RAW	9:29:50	2093.28	Sample	OK	1	
SEQ-CAL5	A8		1	3.64	38.55		96.37			76591-1.RAW	9:33:59	4040.77	Sample	FB	1	
SEQ-ICV1	A9		1	3.64	4.84		96.75			76592-1.RAW	9:38:07	510.30	Sample	OK	1	
ws				3.64	0.07					76593-1.RAW	9:54:29	10.46	Sample	OK	1	stalled
F709411-BLK1	A10		20	3.64	1.48					76594-1.RAW	9:58:38	11.41	Sample	OK	1	
F709411-BLK2	A11		20	3.64	1.62					76595-1.RAW	10:02:46	12.11	Sample	OK	1	
F709411-BLK3	A12		20	3.64	1.30					76596-1.RAW	10:06:55	10.42	Sample	OK	1	
*F709411-BLK4	B1		20	3.64	1.06					76597-1.RAW	10:11:03	9.21	Sample	OK	1	
*F709411-BLK5	B2		20	3.64	0.70					76598-1.RAW	10:15:12	7.28	Sample	OK	1	
F709411-BS1	B3		20	3.64	197.00					76599-1.RAW	10:19:20	1035.24	Sample	OK	1	
F709411-BSD1	B4		20	3.64	200.63					76600-1.RAW	10:23:29	1054.25	Sample	OK	1	
F709411-BS2	B5		400	3.64	1996.34					76601-1.RAW	10:27:37	526.34	Sample	OK	1	
1709491-01	B6		100	3.64	5785.41					76602-1.RAW	10:31:46	6062.82	Sample	FB	1	
ws				3.64	0.27					76604-1.RAW	10:36:18	32.17	Sample	OK	1	
ws				3.64	0.01					76605-1.RAW	10:40:27	4.29	Sample	OK	1	
1709491-02	B7		400	3.64	7672.94					76603-2.RAW	10:44:35	2012.64	Sample	OK	1	
SEQ-CCV1	B8		1	3.64	4.89		97.82			76606-1.RAW	10:48:44	515.86	Sample	OK	1	
SEQ-CCB1	B9		1	3.64	0.05		0.00			76607-1.RAW	10:52:52	8.37	Sample	OK	1	
1709491-01RE1	B10		400	3.64	4577.94					76608-1.RAW	10:57:01	1202.28	Sample	OK	1	
1709491-03	B11		400	3.64	2217.39					76609-1.RAW	11:01:09	584.21	Sample	OK	1	
1709491-04	B12		400	3.64	5624.92					76610-1.RAW	11:05:18	1476.41	Sample	OK	1	
1709491-05	C1		400	3.64	3836.38					76611-1.RAW	11:09:26	1008.12	Sample	OK	1	
1709491-06	C2		400	3.64	3572.76					76612-1.RAW	11:13:34	939.09	Sample	OK	1	
1709491-07	C3		400	3.64	5338.21					76613-1.RAW	11:17:43	1401.34	Sample	OK	1	
1709491-08	C4		400	3.64	7937.68					76614-1.RAW	11:21:51	2081.96	Sample	OK	1	
1709491-09	C5		400	3.64	945.87					76615-1.RAW	11:26:00	251.29	Sample	OK	1	
1709491-10	C6		400	3.64	3741.25					76616-1.RAW	11:30:08	983.21	Sample	OK	1	
1709491-11	C7		400	3.64	1635.43					76617-1.RAW	11:34:17	431.84	Sample	OK	1	
SEQ-CCV2	C8		1	3.64	4.96		99.27			76618-1.RAW	11:38:25	523.50	Sample	OK	1	
SEQ-CCB2	C9		1	3.64	0.08		0.00			76619-1.RAW	11:42:33	12.06	Sample	OK	1	
1709491-12	C10		400	3.64	3572.10					76620-1.RAW	11:46:42	938.82	Sample	OK	1	
1709491-13	C11		400	3.64	3283.53					76621-1.RAW	11:50:50	863.36	Sample	OK	1	
1709491-14	C12		400	3.64	4031.98					76622-1.RAW	11:54:59	1059.33	Sample	OK	1	
1709491-15	D1		400	3.64	3481.52					76623-1.RAW	11:59:07	915.20	Sample	OK	1	
1709491-16	D2		400	3.64	2670.17					76624-1.RAW	12:03:16	702.77	Sample	OK	1	
1709491-17	D3		400	3.64	1574.53					76625-1.RAW	12:07:24	415.90	Sample	OK	1	
1709491-18	D4		400	3.64	2896.63					76626-1.RAW	12:11:33	709.70	Sample	OK	1	
1709491-19	D5		400	3.64	1615.04					76627-1.RAW	12:15:41	426.50	Sample	OK	1	
1709491-20	D6		400	3.64	3762.50					76628-1.RAW	12:19:49	888.77	Sample	OK	1	
F709411-DUP1	D7		400	3.64	2167.83					76629-1.RAW	12:23:58	571.24	Sample	OK	1	
SEQ-CCV3	D8		1	3.64	4.91		98.19			76630-1.RAW	12:28:06	517.81	Sample	OK	1	
SEQ-CCB3	D9		1	3.64	0.02		0.00			76631-1.RAW	12:32:15	5.46	Sample	OK	1	
F709411-MS1	D10		400	3.64	8981.78		882776.24			76632-1.RAW	12:36:23	2355.34	Sample	OK	1	
F709411-MSD1	D11		400	3.64	8917.09					76633-1.RAW	12:40:32	2338.40	Sample	OK	1	
F709411-MS2	D12		400	3.64	6584.21			73.82		76634-1.RAW	12:44:40	1727.58	Sample	OK	1	
F709411-MSD2	A1		400	3.64	6577.98					76635-1.RAW	12:48:49	1725.95	Sample	OK	1	
F709411-DUP2	A2		400	3.64	5035.86					76636-1.RAW	12:52:57	1322.12	Sample	OK	1	
F709455-BLK1	A3		20	3.64	2.04					76637-2.RAW	12:57:31	14.32	Sample	OK	1	
F709455-BLK2	A4		20	3.64	0.76					76638-1.RAW	13:01:39	7.62	Sample	OK	1	
F709455-BLK3	A5		20	3.64	0.39					76639-1.RAW	13:05:48	5.67	Sample	OK	1	
*F709455-BLK4	A6		20	3.64	1.36					76640-1.RAW	13:09:56	10.89	Sample	OK	1	
*F709455-BLK5	A7		20	3.64	0.39					76641-1.RAW	13:14:05	5.68	Sample	OK	1	
SEQ-CCV4	A8		1	3.64	4.89		97.88			76642-1.RAW	13:18:13	516.19	Sample	OK	1	
SEQ-CCB4	A9		1	3.64	0.03		0.00			76643-1.RAW	13:22:22	6.40	Sample	OK	1	

1709632-01	A10	400	3.64	2635.35		76644-1.RAW	13:28:30	693.65	Sample	OK	1
F709455-BS1	A11	20	3.64	101.45		76645-1.RAW	13:30:38	534.87	Sample	OK	1
F709455-BSD1	A12	20	3.64	99.22		76646-1.RAW	13:34:47	523.19	Sample	OK	1
F709455-BS2	B1	400	3.64	2389.70		76647-1.RAW	13:41:58	629.33	Sample	OK	1
1709632-02	B2	400	3.64	1987.69		76648-1.RAW	13:48:55	524.07	Sample	OK	1
1709632-03	B3	400	3.64	4634.18		76649-1.RAW	13:53:03	1217.01	Sample	OK	1
1709632-04	B4	400	3.64	4084.65		76650-1.RAW	13:57:12	1073.12	Sample	OK	1
1709632-05	B5	400	3.64	1727.15		76651-1.RAW	14:01:20	455.86	Sample	OK	1
1709632-06	B6	400	3.64	2530.72		76652-1.RAW	14:05:29	666.26	Sample	OK	1
1709632-07	B7	400	3.64	24260.88		76653-1.RAW	14:09:37	6355.87	Sample	FB	1
SEQ-CCV5	B8	1	3.64	5.27	105.41	76654-1.RAW	14:13:46	555.65	Sample	OK	1
SEQ-CCB5	B9	1	3.64	0.07	0.00	76655-1.RAW	14:17:54	11.33	Sample	OK	1
1709632-08	B10	400	3.64	2460.68		76656-1.RAW	14:22:02	647.92	Sample	OK	1
1709632-09	B11	400	3.64	7151.38		76657-1.RAW	14:26:11	1876.08	Sample	OK	1
1709632-10	B12	400	3.64	3093.77		76658-1.RAW	14:30:19	813.68	Sample	OK	1
1709632-11	C1	400	3.64	3524.26		76659-1.RAW	14:34:28	926.39	Sample	OK	1
1709632-12	C2	400	3.64	1824.13		76660-1.RAW	14:38:38	481.25	Sample	OK	1
1709632-13	C3	400	3.64	3249.15		76661-1.RAW	14:42:45	854.36	Sample	OK	1
1709632-14	C4	400	3.64	2425.41		76662-1.RAW	14:46:53	638.68	Sample	OK	1
1709632-15	C5	400	3.64	2679.19		76663-1.RAW	14:51:02	705.13	Sample	OK	1
1709632-16	C6	400	3.64	3136.70		76664-1.RAW	14:55:10	824.92	Sample	OK	1
1709632-17	C7	400	3.64	2568.69		76665-1.RAW	14:59:18	676.20	Sample	OK	1
SEQ-CCV6	C8	1	3.64	5.03	100.63	76666-1.RAW	15:03:27	530.57	Sample	OK	1
SEQ-CCB6	C9	1	3.64	0.07	0.00	76667-1.RAW	15:07:35	10.51	Sample	OK	1
1709632-18	C10	400	3.64	6841.20		76668-1.RAW	15:11:44	1794.87	Sample	OK	1
1709632-19	C11	400	3.64	9381.82		76669-1.RAW	15:15:52	2460.08	Sample	OK	1
1709632-20	C12	400	3.64	3580.83		76670-1.RAW	15:20:01	941.20	Sample	OK	1
1709632-07RE1	D1	1000	3.64	22616.99		76671-1.RAW	15:24:09	2372.36	Sample	OK	1
F709455-DUP1	D2	400	3.64	2664.90		76672-1.RAW	15:28:17	701.39	Sample	OK	1
F709455-MS1	D3	400	3.64	7798.38	282.52	76673-1.RAW	15:32:26	2045.49	Sample	OK	1
F709455-MSD1	D4	400	3.64	7252.45		76674-1.RAW	15:36:34	1902.55	Sample	OK	1
F709455-MS2	D5	400	3.64	31059.66	428.15	76675-1.RAW	15:40:43	8138.00	Sample	OK	1
F709455-MSD2	D6	400	3.64	30435.74		76676-1.RAW	15:44:51	7972.63	Sample	FB	1
SEQ-CCV7	D7	1	3.64	5.24	104.86	76677-1.RAW	15:49:00	552.73	Sample	OK	1
SEQ-CCB7	D8	1	3.64	0.18	0.00	76678-1.RAW	15:53:08	22.54	Sample	OK	1
WS			3.64	75.68		76679-2.RAW	16:00:29	7929.31	Sample	FB	1
F709455-MS3	D9	1000	3.64	33794.73	42954.48	76680-1.RAW	16:04:38	3543.03	Sample	OK	1
F709455-MSD3	D10	1000	3.64	32746.60		76681-1.RAW	16:08:46	3433.26	Sample	OK	1
SEQ-CCV8	D11	1	3.64	5.15	102.92	76682-1.RAW	16:12:55	542.59	Sample	OK	1
SEQ-CCB8	D12	1	3.64	0.12	0.00	76683-1.RAW	16:17:03	16.96	Sample	OK	1
CLEAN			0.00	0.34		76684-1.RAW	16:56:00	35.89	Clean	OK	1
WS			3.64	0.02		76685-1.RAW	17:00:08	5.57	Sample	OK	1
F709455-MS4	A1	2500	3.64	73055.91	#####	76686-1.RAW	17:04:17	3064.16	Sample	FB	1
F709455-MSD4	A2	2500	3.64	72777.19		76687-1.RAW	17:08:25	3052.48	Sample	OK	1
SEQ-CCV9	A3	1	3.64	4.97	99.40	76688-1.RAW	17:12:34	524.15	Sample	OK	1
SEQ-CCB9	A4	1	3.64	0.11	0.00	76689-1.RAW	17:16:42	15.58	Sample	OK	1

ANALYSIS SEQUENCE

7129022

Instrument: Hg2600-3 ✓

Calibration ID: UNASSIGNED

Analyzed: 9/29/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7129022-IBL1 ✓	QC	1			
7129022-IBL2 ✓	QC	2			
7129022-IBL3 ✓	QC	3			
7129022-CAL1 ✓	QC	4	1704505	✓	
7129022-CAL2 ✓	QC	5	1704506	✓	
7129022-CAL3 ✓	QC	6	1704507	✓	
7129022-CAL4 ✓	QC	7	1704508	✓	
7129022-CAL5 ✓	QC	8	1704509	✓	
7129022-ICV1 ✓	QC	9	1705628	✓	
F709411-BLK1 ✓	QC	10			
F709411-BLK2 ✓	QC	11			
F709411-BLK3 ✓	QC	12			
F709411-BLK4 ✓	QC	13			
F709411-BLK5 ✓	QC	14			
F709411-BS1 ✓	QC	15			
F709411-BSD1 ✓	QC	16			
F709411-BS2 ✓	QC	17			
1709491-01 ✓	Hg-CVAFS-T-7030	18			
1709491-02 ✓	Hg-CVAFS-T-7030	19			
7129022-CCV1 ✓	QC	20	1705628	✓	
7129022-CCB1 ✓	QC	21			
1709491-01RE1 ✓	Hg-CVAFS-T-7030	22			Added 9/29/2017 by DM2
1709491-03 ✓	Hg-CVAFS-T-7030	23			
1709491-04 ✓	Hg-CVAFS-T-7030	24			
1709491-05 ✓	Hg-CVAFS-T-7030	25			
1709491-06 ✓	Hg-CVAFS-T-7030	26			
1709491-07 ✓	Hg-CVAFS-T-7030	27			
1709491-08 ✓	Hg-CVAFS-T-7030	28			
1709491-09 ✓	Hg-CVAFS-T-7030	29			
1709491-10 ✓	Hg-CVAFS-T-7030	30			
1709491-11 ✓	Hg-CVAFS-T-7030	31			
7129022-CCV2 ✓	QC	32	1705628	✓	
7129022-CCB2 ✓	QC	33			
1709491-12 ✓	Hg-CVAFS-T-7030	34			
1709491-13 ✓	Hg-CVAFS-T-7030	35			

Due Date: 10/17/2017

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ANALYSIS SEQUENCE

7129022

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 9/29/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709491-14 ✓	Hg-CVAFS-T-7030	36			
1709491-15 ✓	Hg-CVAFS-T-7030	37			
1709491-16 ✓	Hg-CVAFS-T-7030	38			
1709491-17 ✓	Hg-CVAFS-T-7030	39			
1709491-18 ✓	Hg-CVAFS-T-7030	40			
1709491-19 ✓	Hg-CVAFS-T-7030	41			
1709491-20 ✓	Hg-CVAFS-T-7030	42			
F709411-DUP1 ✓	QC	43			
7129022-CCV3 ✓	QC	44	1705628	✓	
7129022-CCB3 ✓	QC	45			
F709411-MS1 ✓	QC	46			
F709411-MSD1 ✓	QC	47			
F709411-MS2 ✓	QC	48			
F709411-MSD2 ✓	QC	49			
F709411-DUP2 ✓	QC	50			
F709455-BLK1 ✓	QC	51			
F709455-BLK2 ✓	QC	52			
F709455-BLK3 ✓	QC	53			
F709455-BLK4 ✓	QC	54			
F709455-BLK5 ✓	QC	55			
7129022-CCV4 ✓	QC	56	1705628		
7129022-CCB4 ✓	QC	57			
1709632-01 ✓	Hg-CVAFS-T-7030	58			
F709455-BS1 ✓	QC	59			
F709455-BSD1 ✓	QC	60			
F709455-BS2 ✓	QC	61			
1709632-02 ✓	Hg-CVAFS-T-7030	62			
1709632-03 ✓	Hg-CVAFS-T-7030	63			
1709632-04 ✓	Hg-CVAFS-T-7030	64			
1709632-05 ✓	Hg-CVAFS-T-7030	65			
1709632-06 ✓	Hg-CVAFS-T-7030	66			
1709632-07 ✓	Hg-CVAFS-T-7030	67		✓	
7129022-CCV5	QC	68	1705628		
7129022-CCB5 ✓	QC	69			
1709632-08 ✓	Hg-CVAFS-T-7030	70			

Due Date: 10/17/2017

ANALYSIS SEQUENCE

7I29022

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 9/29/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709632-09 ✓	Hg-CVAFS-T-7030	71			
1709632-10 ✓	Hg-CVAFS-T-7030	72			
1709632-11 ✓	Hg-CVAFS-T-7030	73			
1709632-12 ✓	Hg-CVAFS-T-7030	74			
1709632-13 ✓	Hg-CVAFS-T-7030	75			
1709632-14 ✓	Hg-CVAFS-T-7030	76			
1709632-15 ✓	Hg-CVAFS-T-7030	77			
1709632-16 ✓	Hg-CVAFS-T-7030	78			
1709632-17 ✓	Hg-CVAFS-T-7030	79			
7I29022-CCV6 ✓	QC	80	1705628		
7I29022-CCB6 ✓	QC	81			
1709632-18 ✓	Hg-CVAFS-T-7030	82			
1709632-19 ✓	Hg-CVAFS-T-7030	83			
1709632-20 ✓	Hg-CVAFS-T-7030	84			
1709632-07RE1 ✓	Hg-CVAFS-T-7030	85			Added 9/29/2017 by DM2
F709455-DUP1 ✓	QC	86			
F709455-MS1 ✓	QC	87			
F709455-MSD1 ✓	QC	88			
F709455-MS2 ✓	QC	89			
F709455-MSD2 ✓	QC	90			
7I29022-CCV7 ✓	QC	91	1705628		
7I29022-CCB7 ✓	QC	92			
F709455-MS3 ✓	QC	93			
F709455-MSD3 ✓	QC	94			
7I29022-CCV8 ✓	QC	95	1705628		
7I29022-CCB8 ✓	QC	96			
F709455-MS4 ✓	QC	97			
F709455-MSD4 ✓	QC	98			
7I29022-CCV9 ✓	QC	99	1705628		
7I29022-CCB9 ✓	QC	100			

Samples Loaded By _____

Date _____

Data Processed By Don M. [Signature]

Date 9/29/17

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709411

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709411-BLK1	Blank	0.5	40					
F709411-BLK2	Blank	0.5	40					
F709411-BLK3	Blank	0.5	40					
F709411-BLK4	Pre homog blank	0.512	40					
F709411-BLK5	Post homog blank	0.554	40					
F709411-BS1	LCS	0.5	40	1704421	40			
F709411-BS2	DORM4	0.248	40	1703305	248			
F709411-BSD1	LCS Dup	0.5	40	1704421	40			
F709411-DUP1	Duplicate [1709491-01RE1]	0.538	40					
F709411-DUP2	Duplicate [1709491-01RE1]	0.546	40					AD
F709411-MS1	Matrix Spike [1709491-01RE1]	0.543	40	1705554	200			
F709411-MS2	Matrix Spike [1709491-11]	0.533	40	1705554	200			
F709411-MSD1	Matrix Spike Dup [1709491-01RE1]	0.536	40	1705554	200			
F709411-MSD2	Matrix Spike Dup [1709491-11]	0.509	40	1705554	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704516	THg Washstation (0.5% BrCl)	
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1705602	70/30 Digestion Acid	17-Mar-18 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705777	5% BrCl	
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709411

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709491-01	L9-45_17LT015_091317_LOB_01_TA	0.546	40	QC	-	-	MD/MS/MSD	
1709491-01RE1	L9-45_17LT015_091317_LOB_01_TA	0.546	40	QC	-	-	MD/MS/MSD Added 9/29/2017 by DV	Added 9/29/2017 by DM2
1709491-02	L9-45_17LT015_091317_LOB_02_TA	0.518	40	-	-	-		
1709491-03	L9-45_17LT015_091317_LOB_03_TA	0.577	40	-	-	-		
1709491-04	L9-45_17LT015_091317_LOB_04_TA	0.576	40	-	-	-		
1709491-05	L9-45_17LT015_091317_LOB_05_TA	0.575	40	-	-	-		
1709491-06	L9-45_17LT015_091317_LOB_06_TA	0.534	40	-	-	-		
1709491-07	L9-45_17LT015_091317_LOB_07_TA	0.546	40	-	-	-		
1709491-08	L9-45_17LT015_091317_LOB_08_TA	0.524	40	-	-	-		
1709491-09	L9-45_17LT016_091317_LOB_09_TA	0.582	40	-	-	-		
1709491-10	L9-45_17LT016_091317_LOB_10_TA	0.539	40	-	-	-		
1709491-11	L9-45_17LT016_091317_LOB_11_TA	0.512	40	QC	-	-	MS/MSD	
1709491-12	L9-45_17LT016_091317_LOB_12_TA	0.503	40	-	-	-		
1709491-13	L9-45_17LT016_091317_LOB_13_TA	0.579	40	-	-	-		
1709491-14	L9-45_17LT016_091317_LOB_14_TA	0.511	40	-	-	-		
1709491-15	L9-45_17LT017_091317_LOB_15_TA	0.598	40	-	-	-		
1709491-16	L9-45_17LT017_091317_LOB_16_TA	0.57	40	-	-	-		
1709491-17	L9-45_17LT017_091317_LOB_17_TA	0.551	40	-	-	-		
1709491-18	L9-45_17LT017_091317_LOB_18_TA	0.582	40	-	-	-		

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709411

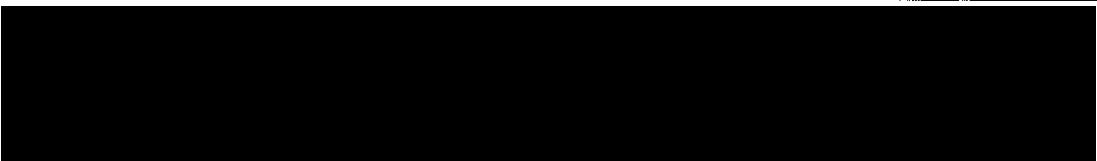
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

1709491-19	L9-45_17LT018_091317_LOB_19_TA	0.546	40	-	-	-		
1709491-20	L9-45_17LT018_091317_LOB_20_TA	0.589	40	-	-	-		



BC 9/24/17
2600-3

PREPARATION BENCH SHEET

F709411

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709411-BLK1	Blank	0.5	40					2.5µL -
F709411-BLK2	Blank	0.5	40					2.5µL -
F709411-BLK3	Blank	0.5	40					2.5µL -
F709411-BLK4	Pre homog blank	0.512	40					2.5µL -
F709411-BLK5	Post homog blank	0.554	40					2.5µL -
F709411-BS1	LCS	0.5	40	1704421	40			2.5µL -
F709411-BS2	DORM4	0.248	40	1703305	248			125µL -
F709411-BSD1	LCS Dup	0.5	40	1704421	40			2.5µL -
F709411-DUP1	Duplicate [1709491-01]	0.538	40					125µL -
F709411-MS1	Matrix Spike [1709491-01]	0.543	40	1705554	200			125µL -
F709411-MS2	Matrix Spike [1709491-11]	0.533	40	1705554	200			125µL -
F709411-MSD1	Matrix Spike Dup [1709491-01]	0.536	40	1705554	200			125µL -
F709411-MSD2	Matrix Spike Dup [1709491-11]	0.509	40	1705554	200			125µL -

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1705602	70/30 Digestion Acid	17-Mar-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705777	5% BrCl	22-Jan-18 00:00

DUP 2 (AD) 1709491-01 125µL

2.5 µL = 20X
125 = 400X

1705979

1704516

1704517

1705611

1703109

Due Date: 10/17/2017

PREPARATION BENCH SHEET

Bc 9/29/17
2600-3

F709411

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709491-01	L9-45_17LT015_091317_LOB_01_TA	0.546	40	QC	-	-	MD/MS/MSD 500 uL → 125 uL	
1709491-02	L9-45_17LT015_091317_LOB_02_TA	0.518	40	-	-	-	125 uL ✓	
1709491-03	L9-45_17LT015_091317_LOB_03_TA	0.577	40	-	-	-	125 uL ✓	
1709491-04	L9-45_17LT015_091317_LOB_04_TA	0.576	40	-	-	-	125 uL ✓	
1709491-05	L9-45_17LT015_091317_LOB_05_TA	0.575	40	-	-	-	175 uL ✓	
1709491-06	L9-45_17LT015_091317_LOB_06_TA	0.534	40	-	-	-	125 uL ✓	
1709491-07	L9-45_17LT015_091317_LOB_07_TA	0.546	40	-	-	-	125 uL ✓	
1709491-08	L9-45_17LT015_091317_LOB_08_TA	0.524	40	-	-	-	125 uL ✓	
1709491-09	L9-45_17LT016_091317_LOB_09_TA	0.582	40	-	-	-	125 uL ✓	
1709491-10	L9-45_17LT016_091317_LOB_10_TA	0.539	40	-	-	-	125 uL ✓	
1709491-11	L9-45_17LT016_091317_LOB_11_TA	0.512	40	QC	-	-	MS/MSD 125 uL ✓	
1709491-12	L9-45_17LT016_091317_LOB_12_TA	0.503	40	-	-	-	125 uL ✓	
1709491-13	L9-45_17LT016_091317_LOB_13_TA	0.579	40	-	-	-	125 uL ✓	
1709491-14	L9-45_17LT016_091317_LOB_14_TA	0.511	40	-	-	-	125 uL ✓	
1709491-15	L9-45_17LT017_091317_LOB_15_TA	0.598	40	-	-	-	125 uL ✓	
1709491-16	L9-45_17LT017_091317_LOB_16_TA	0.57	40	-	-	-	125 uL ✓	
1709491-17	L9-45_17LT017_091317_LOB_17_TA	0.551	40	-	-	-	125 uL ✓	
1709491-18	L9-45_17LT017_091317_LOB_18_TA	0.582	40	-	-	-	125 uL ✓	
1709491-19	L9-45_17LT018_091317_LOB_19_TA	0.546	40	-	-	-	125 uL ✓	

Due Date: 10/17/2017

PREPARATION BENCH SHEET

BC 9/29/17
2600-3

F709411

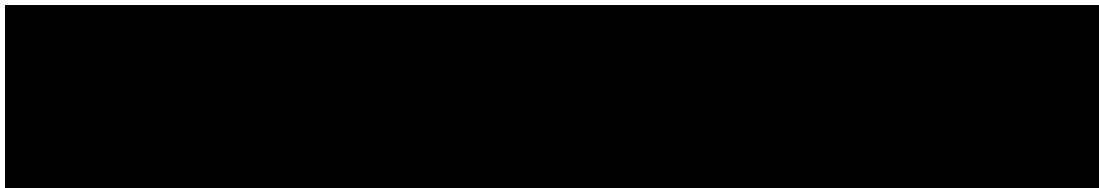
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

1709491-20	L9-45_17LT018_091317_LOB_20_TA	0.589	40	-	-	-	125-✓-	
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Technician: BC/AMB Batch#: F709411 Date: 9/26/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: AMB 9-26-17
 Balance#: 1010 Calibrated? Yes No Therm.#: 14545 Vial Type: Glass Teflon
 Calibrated? Yes No
 *Time in: 1845 Actual Temp. (raw): 76.5 °C w/ CF: 77.1 °C
 Time out: 2045 Actual Temp. (raw): timer °C w/ CF: timer °C
 *Time in can't begin before target temperature is reached

Final vol.: 40 mL (LIMS ID: 1705777) Spike vol.: 200 µL (LIMS ID: 1705554)
 Spike Witness: DA 9/26/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 04 07852 Calibration Date: 9/26/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705602 Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623
 Glass Vial # 00067892 Boiling Chip lot # 1702551 *Hotblock Position: H5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F709411-BIK1	0.501	23	F709411-MS2	0.533	BS2
2	F709411-BIK2	0.525	24	F709411-MSD2	0.509	Dorm 4
3	F709411-BIK3	0.545	25	1709491-12	0.503	1703305
4	F709411-BIK4	0.512	26	1709491-13	0.579	Comments
5	F709411-BIK5	0.554	27	1709491-14	0.511	
6	F709411-BS1	0.560	28	1709491-15	0.598	1709491-01
7	F709411-BSD1	0.510	29	1709491-16	0.570	DUP, MS, MSD1
8	F709411-BS2	0.248	30	1709491-17	0.551	
9	1709491-DUP1	0.546	31	1709491-18	0.582	1709491-11
10	F709411-DUP1	0.538	32	1709491-19	0.546	MS2, MS, MSD2
11	F709411-MS1	0.543	33	1709491-20	0.589	
12	F709411-MSD1	0.536	34			
13	1709491-02	0.518	35			
14	1709491-03	0.577	36			
15	1709491-04	0.570	37			
16	1709491-05	0.575	38			
17	1709491-06	0.534	39			
18	1709491-07	0.546	40			
19	1709491-08	0.524	41			
20	1709491-09	0.582	42			
21	1709491-10	0.539	43			
22	1709491-11	0.512	44			

BC 9/26/17

BS1, BSD1
 Spiked with
 40 ml of 100ng/ml
 LIMS: 1704421
 spiked and
 acid added
 by AMB. AMB
 9-26-17

PREPARATION BENCH SHEET

F709455

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/27/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709455-BLK1	Blank	0.5	40					
F709455-BLK2	Blank	0.5	40					
F709455-BLK3	Blank	0.5	40					
F709455-BLK4	Pre-BLK	0.5	40					
F709455-BLK5	Post-BLK	0.5	40					
F709455-BS1	LCS	0.5	40	1704421	40			
F709455-BS2	DORM-4	0.279	40	1703305	279			
F709455-BSD1	LCS Dup	0.5	40	1704421	40			
F709455-DUP1	Duplicate [1709632-01]	0.543	40					
F709455-MS1	Matrix Spike [1709632-01]	0.588	40	1705554	200			
F709455-MS2	Matrix Spike [1709632-07RE1]	0.555	40	1705554	200			
F709455-MS3	Matrix Spike [1709632-07RE1]	0.555	40	1705554	200			
F709455-MS4	Matrix Spike [1709632-07RE1]	0.000262	0.02	1704422	100			[Spk] 0.524g->40mL; 40mL->40mL; Spiked 0.02mL
F709455-MSD1	Matrix Spike Dup [1709632-01]	0.533	40	1705554	200			
F709455-MSD2	Matrix Spike Dup [1709632-07RE1]	0.566	40	1705554	200			
F709455-MSD3	Matrix Spike Dup [1709632-07RE1]	0.566	40	1705554	200			
F709455-MSD4	Matrix Spike Dup [1709632-07RE1]	0.000262	0.02	1704422	100			[Spk] 0.524g->40mL; 40mL->40mL; Spiked 0.02mL

PREPARATION BENCH SHEET

F709455

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/27/2017

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1704516	THg Washstation (0.5% BrCl)	
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1705611		22-Jan-18 00:00
			1705777	5% BrCl	
			1705779	3% SnCl ₂ THg reductant	13-Mar-18 00:00
			1705780	70/30 Digestion Acid	25-Mar-18 00:00

PREPARATION BENCH SHEET

F709455

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/27/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709632-01	L10-52_17LT006_091317_LOB_01_TA	0.542	40	QC	-	-	MS/MSD	
1709632-02	L10-52_17LT006_091317_LOB_02_TA	0.521	40	-	-	-		
1709632-03	L10-52_17LT006_091317_LOB_03_TA	0.577	40	-	-	-		
1709632-04	L10-52_17LT006_091317_LOB_04_TA	0.529	40	-	-	-		
1709632-05	L10-52_17LT006_091317_LOB_05_TA	0.541	40	-	-	-		
1709632-06	L10-52_17LT006_091317_LOB_06_TA	0.569	40	-	-	-		
1709632-07	L10-52_17LT007_091317_LOB_07_TA	0.524	40	-	-	-		
1709632-07RE1	L10-52_17LT007_091317_LOB_07_TA	0.524	40	-	-	-	Added 9/29/2017 by DM2	Added 9/29/2017 by DM2
1709632-08	L10-52_17LT007_091317_LOB_08_TA	0.51	40	-	-	-		
1709632-09	L10-52_17LT007_091317_LOB_09_TA	0.528	40	-	-	-		
1709632-10	L10-52_17LT008_091317_LOB_10_TA	0.522	40	-	-	-		
1709632-11	L10-52_17LT008_091317_LOB_11_TA	0.528	40	-	-	-		
1709632-12	L10-52_17LT008_091317_LOB_12_TA	0.516	40	-	-	-		
1709632-13	L10-52_17LT009_091317_LOB_13_TA	0.54	40	-	-	-		
1709632-14	L10-52_17LT041_091517_LOB_14_TA	0.556	40	-	-	-		
1709632-15	L10-52_17LT041_091517_LOB_15_TA	0.505	40	-	-	-		
1709632-16	L10-52_17LT041_091517_LOB_16_TA	0.501	40	-	-	-		
1709632-17	L10-52_17LT042_091517_LOB_17_TA	0.566	40	-	-	-		
1709632-18	L10-52_17LT040_091517_LOB_18_TA	0.527	40	-	-	-		

PREPARATION BENCH SHEET

F709455

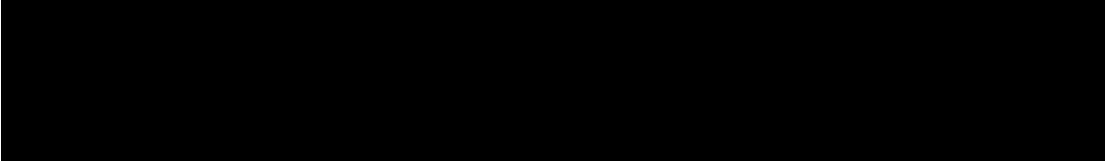
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/27/2017

1709632-19	L10-52_17LT040_091517_LOB_19_TA	0.574	40	-	-	-		
1709632-20	L10-52_17LT040_091517_LOB_20_TA	0.516	40	-	-	-		



PREPARATION BENCH SHEET

BL 9/29/17
2600-3

F709455

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/27/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709455-BLK1	Blank	0.5	40					2.5µL
F709455-BLK2	Blank	0.5	40					2.5µL
F709455-BLK3	Blank	0.5	40					2.5µL
F709455-BLK4	Pre-BLK	0.5	40					2.5µL
F709455-BLK5	Post-BLK	0.5	40					2.5µL
F709455-BS1	LCS	0.5	40	1704421	40			2.5µL
F709455-BS2	DORM-4	0.279	40	1703305	0.0279			12.5µL
F709455-BSD1	LCS Dup	0.5	40	1704421	40			2.5µL
F709455-DUP1	Duplicate [1709632-01]	0.543	40					12.5µL
F709455-MS1	Matrix Spike [1709632-01]	0.588	40	1705554	200			12.5µL
F709455-MS2	Matrix Spike [1709632-07] RE1	0.555	40	1705554	200			12.5µL
F709455-MSD1	Matrix Spike Dup [1709632-01]	0.533	40	1705554	200			12.5µL
F709455-MSD2	Matrix Spike Dup [1709632-07] RE1	0.566	40	1705554	200			12.5µL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1705777	5% BrCl	22-Jan-18 00:00
1705554	THg 1.000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705780	70/30 Digestion Acid	25-Mar-18 00:00

MS3/MSD3 re run MS2/MSD2 50µL
 50µL = 1000X
 12.5µL = 400X
 2.5µL = 20X
 2500X = 20µL

MS4, MSD4 - AS, ASD 2500X
 source 1709632-07
 1704422 100µL

1705779
 1704516
 1704517
 1705611
 1703182

Due Date: 10/20/2017

PREPARATION BENCH SHEET

BC 9/29/17

F709455

2600-7

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/27/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709632-01	L10-52_17LT006_091317_LOB_01_TA	0.542	40	QC	-	-	MS/MSD 125ul ✓	
1709632-02	L10-52_17LT006_091317_LOB_02_TA	0.521	40	-	-	-	125ul ✓	
1709632-03	L10-52_17LT006_091317_LOB_03_TA	0.577	40	-	-	-	125ul ✓	
1709632-04	L10-52_17LT006_091317_LOB_04_TA	0.529	40	-	-	-	125ul ✓	
1709632-05	L10-52_17LT006_091317_LOB_05_TA	0.541	40	-	-	-	125ul ✓	
1709632-06	L10-52_17LT006_091317_LOB_06_TA	0.569	40	-	-	-	125ul ✓	
1709632-07	L10-52_17LT007_091317_LOB_07_TA	0.524	40	-	-	-	125ul → 50ul ✓	
1709632-08	L10-52_17LT007_091317_LOB_08_TA	0.51	40	-	-	-	125ul ✓	
1709632-09	L10-52_17LT007_091317_LOB_09_TA	0.528	40	-	-	-	125ul ✓	
1709632-10	L10-52_17LT008_091317_LOB_10_TA	0.522	40	-	-	-	125ul ✓	
1709632-11	L10-52_17LT008_091317_LOB_11_TA	0.528	40	-	-	-	125ul ✓	
1709632-12	L10-52_17LT008_091317_LOB_12_TA	0.516	40	-	-	-	125ul ✓	
1709632-13	L10-52_17LT009_091317_LOB_13_TA	0.54	40	-	-	-	125ul ✓	
1709632-14	L10-52_17LT041_091517_LOB_14_TA	0.556	40	-	-	-	125ul ✓	
1709632-15	L10-52_17LT041_091517_LOB_15_TA	0.505	40	-	-	-	125ul ✓	
1709632-16	L10-52_17LT041_091517_LOB_16_TA	0.501	40	-	-	-	125ul ✓	
1709632-17	L10-52_17LT042_091517_LOB_17_TA	0.566	40	-	-	-	125ul ✓	
1709632-18	L10-52_17LT040_091517_LOB_18_TA	0.527	40	-	-	-	125ul ✓	
1709632-19	L10-52_17LT040_091517_LOB_19_TA	0.574	40	-	-	-	125ul ✓	

Due Date: 10/20/2017

PREPARATION BENCH SHEET

BC 9/28/17
2600-3

F709455

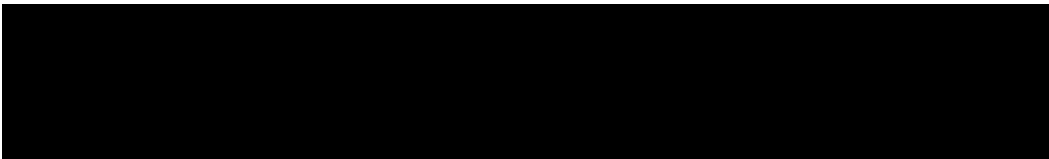
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/27/2017

1709632-20	L10-52_17LT040_091517_LOB_20_TA	0.516	40	-	-	-	125ul /	
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Technician: CWC Batch#: F709455 Date: 9/27/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 10 Calibrated? Yes No Therm.#: 14545 Calibrated? Yes No
 *Time in: 16:40 Actual Temp. (raw): 79.0 °C w/ CF: 879.1 °C CC 9/27/17
 Time out: 18:40 Actual Temp. (raw): 87.0 °C w/ CF: 83.1 °C
 *Time in can't begin before target temperature is reached

Final vol.: 40 mL (LIMS ID: 1705777) Spike vol.: 200 µL (MSMSD LIMS ID: 1705554)
 Spike Witness: bc 9/27/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: 0407852 Calibration Date: 9/28/17
 HNO₃ LIMS ID: NA Pipette SN#: NA Calibration Date: NA
 70/30 LIMS ID: 1705780 Dispenser #: 02527494 Calibrated? Yes No
 Other Acid LIMS ID: NA Dispenser #: 19406023, Yes
 Glass Vial # 00067892 Boiling Chip lot # 1702551 *Hotblock Position: J5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F709455-BLK1	0.551	23	1709632-10	0.522	B52 = DORM4
2	F709455-BLK2	0.512	24	1709632-11	0.528	
3	F709455-BLK3	0.597	25	1709632-12	0.516	1703305
4	F709455-BLK4	0.547	26	1709632-13	0.540	Comments
5	F709455-BLK5	0.518	27	1709632-14	0.556	BLK4 is
6	F709455-B51	0.572	28	1709632-15	0.505	Pre-BLK
7	F709455-B5D1	0.593	29	1709632-16	0.501	BLK5 is
8	F709455-B52	0.279	30	1709632-17	0.566	Post-BLK
9	F709455-DUP1	0.543	31	1709632-18	0.527	DUP1, MS1, MSD1
10	F709455-MS1	0.588	32	1709632-19	0.574	SRL: 1709632-01
11	F709455-MSD1	0.533	33	1709632-20	0.516	MS2, MSD2
12	F709455-MS2	0.555	34			SRL: 1709632-07
13	F709455-MSD2	0.566	35			B5/B5D1 Spike: 40ul of 100 ug/mL: 1704421 CWC 9/28/17
14	1709632-01	0.542	36			
15	1709632-02	0.521	37			
16	1709632-03	0.577	38			
17	1709632-04	0.529	39			
18	1709632-05	0.541	40			
19	1709632-06	0.569	41			
20	1709632-07	0.524	42			
21	1709632-08	0.510	43			
22	1709632-09	0.528	44			

Failing Data Report - 7129022

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1709491-01	Hg-CVAFS-T-7030	424	3.66				ng/g						FAIL-OVER	PASS	E -
1709632-07	Hg-CVAFS-T-7030	1850	15.3				ng/g						FAIL-OVER	PASS	E -
F709411-BS1	Hg-CVAFS-T-7030	15.64	0.800			8.0160	ng/g	195	75.00	125.00			PASS-OVER	FAIL-BS	PR
F709411-BSD1	Hg-CVAFS-T-7030	15.93	0.800	15.64		8.0160	ng/g	199	75.00	125.00	1.84	24.00	PASS-OVER	FAIL-BSD (Rec.)	PR
F709411-DUP1	Hg-CVAFS-T-7030	161.1	14.9	335.3	335.3		ng/g				70.2	24.00	PASS-OVER	FAIL-DUP	QR-07 -
F709455-MS2	Hg-CVAFS-T-7030	2238	14.4		1726	360.36	ng/g	142	71.00	125.00			FAIL-OVER	FAIL-MS	PM-02, E -
F709455-MSD2	Hg-CVAFS-T-7030	2151	14.1	2238	1726	353.36	ng/g	120	71.00	125.00	16.8	24.00	FAIL-OVER	PASS-MSD	E -
F709455-MS3	Hg-CVAFS-T-7030	2436	36.0		1726	360.36	ng/g	197	71.00	125.00			PASS-OVER	FAIL-MS	PM-02 -
F709455-MSD3	Hg-CVAFS-T-7030	2314	35.3	2436	1726	353.36	ng/g	166	71.00	125.00	16.8	24.00	PASS-OVER	FAIL-MSD (Rec.)	PM-02 -

Don Moore
 Analyst Reviewed By

9/29/17
 Date

[Signature]
 Peer Reviewed By

9/29/17
 Date

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BLAKE CASSIDY	Sequence(s) #: 7129022
Reviewer: <u>R 9/29/17</u>	Dataset ID(s): THG26003-170929-1
Date: 9/29/2017	WO (s) #: 1709491, 1709632
Batch #(s): F709411, F709455	

● Select the correct preparation method.

Analyte	Prep Method	Matrix	
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg0	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: DM **Reviewer Initials:** R 9/29/17

- | | | | | |
|---|---|--|-------------------------------------|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?
Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (b) Check 5% of transcription from Instrument print-out and Excel file
Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel?
50 ml / aliquot = Excel dilution value | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BLAKE CASSIDY	Sequence(s) #:	7129022
Reviewer:	0 <i>AC 9/29/17</i>	Dataset ID(s):	THG26003-170929-1
Date:	9/29/2017	WO (s) #:	1709491, 1709632
Batch #(s):	F709411, F709455		0

Analyst Initials DM Reviewer Initials AC 9/29/17

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: SEE FAILING DATA REPORT
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: _____
- (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
- (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
- (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
- (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BLAKE CASSIDY	Sequence(s) #:	7129022
Reviewer:	0 <i>R 9/29/17</i>	Dataset ID(s):	THG26003-170929-1
Date:	9/29/2017	WO (s) #:	1709491, 1709632
Batch #(s):	F709411, F709455		0

Analyst Initials DN **Reviewer Initials** R 9/29/17

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | |
|--|------------------------------|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: <u>1-27-17</u> IDOC/CDOC within last 12 months? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ Current SOP revision read? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>5/9/2017</u> LOD within last 3 months? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>5/9/2017</u> LOQ within last 3 months? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.



Frontier Global Sciences

THg26002-171003-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 03, 2017
Instrument #: Hg2600-2
LIMS Sequence #: 7J04013, 7J04014

Analyst: DM2
Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	86.50 units	173.01	79.57 units	159.14	105.5 %Rec
SEQ-CAL2	1	1.00 ng/L	151.89 units	151.89	144.96 units	144.96	96.1 %Rec
SEQ-CAL3	1	5.00 ng/L	766.63 units	153.33	759.70 units	151.94	100.7 %Rec
SEQ-CAL4	1	20.00 ng/L	3098.38 units	154.92	3091.44 units	154.57	102.5 %Rec
SEQ-CAL5	1	40.00 ng/L	5748.85 units	143.72	5741.91 units	143.55	95.2 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
150.83	+/- 6.55	4.3% RSD	155.37

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.93 units	±2.96	0.04 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.306 ng/L	±0.422
BLK	2	3	15.177 ng/L	±6.402
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: PL 10/4/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-2	DM2	CAL	SEQ-IBL1 ✓	1	10/3/2017 10:31:34	86387-1.RAW	10:31:34 AM	3.57 ✓			-3.4	-0.022	-0.022	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2 ✓	1	10/3/2017 10:35:42	86388-1.RAW	10:35:42 AM	8.09 ✓			1.2	0.008	0.008	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3 ✓	1	10/3/2017 10:39:51	86389-1.RAW	10:39:51 AM	9.13 ✓			2.2	0.015	0.015	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1 ✓	1	10/3/2017 10:43:59	86390-1.RAW	10:43:59 AM	86.50 ✓			79.6	0.528	0.528	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2 ✓	1	10/3/2017 10:48:08	86391-1.RAW	10:48:08 AM	151.89 ✓			145.0	0.961	0.961	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3 ✓	1	10/3/2017 10:52:16	86392-1.RAW	10:52:16 AM	766.63 ✓			759.7	5.037	5.037	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4 ✓	1	10/3/2017 10:56:24	86393-1.RAW	10:56:24 AM	3098.38 ✓			3091.4	20.496	20.496	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5 ✓	1	10/3/2017 11:00:33	86394-1.RAW	11:00:33 AM	5748.85 ✓			5741.9	38.068	38.068	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1 ✓	1	10/3/2017 11:06:06	86395-2.RAW	11:06:06 AM	724.80 ✓			717.9	4.759	4.759	ng/L	
Hg2600-2	DM2	BLK	F710187-BLK1 ✓	20	10/3/2017 11:10:15	86396-1.RAW	11:10:15 AM	19.33 ✓	1		12.4	0.082	1.644	ng/L	
Hg2600-2	DM2	BLK	F710187-BLK2 ✓	20	10/3/2017 11:14:23	86397-1.RAW	11:14:23 AM	17.79 ✓	1		10.9	0.072	1.439	ng/L	
Hg2600-2	DM2	BLK	F710187-BLK3 ✓	20	10/3/2017 11:18:32	86398-1.RAW	11:18:32 AM	13.22 ✓	1		6.3	0.042	0.833	ng/L	
Hg2600-2	DM2	SAM	*F710187-BLK4 ✓	20	10/3/2017 11:22:40	86399-1.RAW	11:22:40 AM	19.75 ✓	1		12.8	0.020	0.394	ng/L	
Hg2600-2	DM2	SAM	*F710187-BLK5 ✓	20	10/3/2017 11:26:48	86400-1.RAW	11:26:48 AM	12.68 ✓	1		5.8	-0.027	-0.543	ng/L	
Hg2600-2	DM2	SAM	F710187-BS1 ✓	20	10/3/2017 11:30:57	86401-1.RAW	11:30:57 AM	760.77 ✓	1		753.8	4.933	98.651	ng/L	
Hg2600-2	DM2	SAM	F710187-BSD1 ✓	20	10/3/2017 11:35:05	86402-1.RAW	11:35:05 AM	745.41 ✓	1		738.5	4.831	96.614	ng/L	
Hg2600-2	DM2	SAM	F710187-BS2 ✓	400	10/3/2017 11:39:14	86403-1.RAW	11:39:14 AM	743.20 ✓	1		736.3	4.878	1951.239	ng/L	
Hg2600-2	DM2	SAM	1709491-01RE2 ✓	400	10/3/2017 11:43:22	86404-1.RAW	11:43:22 AM	1638.78 ✓	1		1631.8	10.816	4326.251	ng/L	
Hg2600-2	DM2	SAM	1709491-02RE1 ✓	400	10/3/2017 11:47:30	86405-1.RAW	11:47:30 AM	2687.96 ✓	1		2681.0	17.772	7108.620	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1 ✓	1	10/3/2017 11:51:39	86406-1.RAW	11:51:39 AM	723.40 ✓			716.5	4.750	4.750	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1 ✓	1	10/3/2017 11:55:47	86407-1.RAW	11:55:47 AM	19.31 ✓			12.4	0.082	0.082	ng/L	
Hg2600-2	DM2	SAM	1709491-03RE1 ✓	400	10/3/2017 11:59:56	86408-1.RAW	11:59:56 AM	766.05 ✓	1		759.1	5.030	2011.843	ng/L	
Hg2600-2	DM2	SAM	1709491-04RE1 ✓	400	10/3/2017 12:04:04	86409-1.RAW	12:04:04 PM	1959.48 ✓	1		1952.5	12.942	5176.734	ng/L	
Hg2600-2	DM2	SAM	1709491-05RE1 ✓	400	10/3/2017 12:08:13	86410-1.RAW	12:08:13 PM	1399.34 ✓	1		1392.4	9.228	3691.271	ng/L	
Hg2600-2	DM2	SAM	1709491-06RE1 ✓	400	10/3/2017 12:12:21	86411-1.RAW	12:12:21 PM	1330.45 ✓	1		1323.5	8.771	3508.584	ng/L	
Hg2600-2	DM2	SAM	1709491-07RE1 ✓	400	10/3/2017 12:16:29	86412-1.RAW	12:16:29 PM	1983.75 ✓	1		1976.8	13.103	5241.107	ng/L	
Hg2600-2	DM2	SAM	1709491-08RE1 ✓	400	10/3/2017 12:20:38	86413-1.RAW	12:20:38 PM	2926.87 ✓	1		2919.9	19.355	7742.182	ng/L	
Hg2600-2	DM2	SAM	1709491-09RE1 ✓	400	10/3/2017 12:24:46	86414-1.RAW	12:24:46 PM	367.30 ✓	1		360.4	2.386	954.359	ng/L	
Hg2600-2	DM2	SAM	1709491-10RE1 ✓	400	10/3/2017 12:28:55	86415-1.RAW	12:28:55 PM	1391.97 ✓	1		1385.0	9.179	3671.741	ng/L	
Hg2600-2	DM2	SAM	1709491-11RE1 ✓	400	10/3/2017 12:33:03	86416-1.RAW	12:33:03 PM	588.02 ✓	1		581.1	3.849	1539.718	ng/L	
Hg2600-2	DM2	SAM	1709491-12RE1 ✓	400	10/3/2017 12:37:12	86417-1.RAW	12:37:12 PM	1177.50 ✓	1		1170.6	7.757	3102.969	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2 ✓	1	10/3/2017 12:41:20	86418-1.RAW	12:41:20 PM	730.40 ✓			723.5	4.797	4.797	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2 ✓	1	10/3/2017 12:45:28	86419-1.RAW	12:45:28 PM	27.78 ✓			20.8	0.138	0.138	ng/L	
Hg2600-2	DM2	SAM	1709491-13RE1 ✓	400	10/3/2017 12:49:37	86420-1.RAW	12:49:37 PM	1210.83 ✓	1		1203.9	7.978	3191.358	ng/L	
Hg2600-2	DM2	SAM	1709491-14RE1 ✓	400	10/3/2017 12:53:45	86421-1.RAW	12:53:45 PM	1386.81 ✓	1		1379.9	9.145	3658.059	ng/L	
Hg2600-2	DM2	SAM	1709491-15RE1 ✓	400	10/3/2017 12:57:54	86422-1.RAW	12:57:54 PM	1262.87 ✓	1		1255.9	8.323	3329.364	ng/L	
Hg2600-2	DM2	SAM	1709491-16RE1 ✓	400	10/3/2017 13:02:02	86423-1.RAW	1:02:02 PM	971.54 ✓	1		964.6	6.392	2556.775	ng/L	
Hg2600-2	DM2	SAM	1709491-17RE1 ✓	400	10/3/2017 13:06:10	86424-1.RAW	1:06:10 PM	601.02 ✓	1		594.1	3.935	1574.178	ng/L	
Hg2600-2	DM2	SAM	1709491-18RE1 ✓	400	10/3/2017 13:10:19	86425-1.RAW	1:10:19 PM	977.15 ✓	1		970.2	6.429	2571.652	ng/L	
Hg2600-2	DM2	SAM	1709491-19RE1 ✓	400	10/3/2017 13:14:27	86426-1.RAW	1:14:27 PM	611.28 ✓	1		604.4	4.003	1601.399	ng/L	
Hg2600-2	DM2	SAM	1709491-20RE1 ✓	400	10/3/2017 13:18:36	86427-1.RAW	1:18:36 PM	1341.31 ✓	1		1334.4	8.843	3537.381	ng/L	
Hg2600-2	DM2	SAM	F710187-DUP1 ✓	400	10/3/2017 13:22:44	86428-1.RAW	1:22:44 PM	767.00 ✓	1		760.1	5.036	2014.346	ng/L	
Hg2600-2	DM2	SAM	F710187-MS1 ✓	400	10/3/2017 13:26:53	86429-1.RAW	1:26:53 PM	3067.50 ✓	1		3060.6	20.288	8115.139	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3 ✓	1	10/3/2017 13:31:01	86430-1.RAW	1:31:01 PM	764.17 ✓			757.2	5.020	5.020	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3 ✓	1	10/3/2017 13:35:09	86431-1.RAW	1:35:09 PM	33.45 ✓			26.5	0.176	0.176	ng/L	
Hg2600-2	DM2	SAM	F710187-MSD1 ✓	400	10/3/2017 13:39:18	86432-1.RAW	1:39:18 PM	3099.62 ✓	1		3092.7	20.501	8200.317	ng/L	
Hg2600-2	DM2	SAM	F710187-MS2 ✓	400	10/3/2017 13:43:26	86433-1.RAW	1:43:26 PM	2330.06 ✓	1		2323.1	15.399	6159.498	ng/L	
Hg2600-2	DM2	SAM	F710187-MSD2 ✓	400	10/3/2017 13:47:35	86434-1.RAW	1:47:35 PM	2270.99 ✓	1		2264.1	15.007	6002.851	ng/L	
Hg2600-2	DM2	BLK	F709485-BLK1 ✓	100	10/3/2017 13:51:43	86435-1.RAW	1:51:43 PM	40.53 ✓	2		33.6	0.223	22.273	ng/L	
Hg2600-2	DM2	BLK	F709485-BLK2 ✓	100	10/3/2017 13:55:51	86436-1.RAW	1:55:51 PM	27.18 ✓	2		20.3	0.134	13.426	ng/L	
Hg2600-2	DM2	BLK	F709485-BLK3 ✓	100	10/3/2017 14:00:00	86437-1.RAW	2:00:00 PM	21.76 ✓	2		14.8	0.098	9.833	ng/L	
Hg2600-2	DM2	SAM	F709485-BS1 ✓	400	10/3/2017 14:04:08	86438-1.RAW	2:04:08 PM	683.73 ✓	2		676.8	4.449	1779.658	ng/L	
Hg2600-2	DM2	SAM	F709485-BSD1 ✓	400	10/3/2017 14:08:17	86439-1.RAW	2:08:17 PM	674.49 ✓	2		667.6	4.388	1755.140	ng/L	
Hg2600-2	DM2	SAM	1709699-01 ✓	5000	10/3/2017 14:12:25	86440-1.RAW	2:12:25 PM	34752.25 ✓	2		34745.3	230.353	1151765.364	ng/L	
Hg2600-2	DM2	SAM	1709699-02 ✓	5000	10/3/2017 14:16:34	86441-1.RAW	2:16:34 PM	891.35 ✓	2		884.4	5.861	29302.512	ng/L	
Hg2600-2	DM2	SAM	ws		10/3/2017 14:21:30	86442-1.RAW	2:21:30 PM	106.98 ✓		X	100.0	0.663	0.000	ng/L	
Hg2600-2	DM2	SAM	ws		10/3/2017 14:25:39	86443-1.RAW	2:25:39 PM	43.89 ✓		X	37.0	0.245	0.000	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	DM2	SAM	clean		10/3/2017 14:28:30	86444-1.RAW	2:28:30 PM	11.06		X	4.1	0.027	0.000	ng/L	
Hg2600-2	DM2	SAM	ws		10/3/2017 14:32:38	86445-1.RAW	2:32:38 PM	42.08		X	35.2	0.233	0.000	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	10/3/2017 14:36:47	86446-1.RAW	2:36:47 PM	734.74			727.8	4.825	4.825	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	10/3/2017 14:40:55	86447-1.RAW	2:40:55 PM	26.89			20.0	0.132	0.132	ng/L	
Hg2600-2	DM2	SAM	F710187-DUP2	400	10/3/2017 14:45:04	86448-1.RAW	2:45:04 PM	1608.13		1	1601.2	10.612	4244.976	ng/L	
Hg2600-2	DM2	SAM	1709805-01	2500	10/3/2017 14:49:12	86449-1.RAW	2:49:12 PM	14139.14		2	14132.2	93.688	234220.774	ng/L	
Hg2600-2	DM2	SAM	1709805-02	2500	10/3/2017 14:53:21	86450-1.RAW	2:53:21 PM	13143.48		2	13136.5	87.087	217718.002	ng/L	
Hg2600-2	DM2	SAM	clean		10/3/2017 14:56:12	86451-1.RAW	2:56:12 PM	54.15		X	47.2	0.313	0.000	ng/L	
Hg2600-2	DM2	SAM	ws		10/3/2017 15:00:21	86452-1.RAW	3:00:21 PM	94.22		X	87.3	0.579	0.000	ng/L	
Hg2600-2	DM2	SAM	ws		10/3/2017 15:04:30	86453-1.RAW	3:04:30 PM	51.37		X	44.4	0.295	0.000	ng/L	
Hg2600-2	DM2	SAM	1709836-01	2500	10/3/2017 15:08:38	86454-1.RAW	3:08:38 PM	153.3878967		2	146.5	0.965	2412.284	ng/L	
Hg2600-2	DM2	SAM	1709836-02	2500	10/3/2017 15:12:47	86455-1.RAW	3:12:47 PM	184.58		2	177.7	1.172	2929.326	ng/L	
Hg2600-2	DM2	SAM	1709836-03	2500	10/3/2017 15:16:55	86456-1.RAW	3:16:55 PM	2710.21		2	2703.3	17.916	44790.553	ng/L	
Hg2600-2	DM2	SAM	1709836-04	2500	10/3/2017 15:21:04	86457-1.RAW	3:21:04 PM	2383.98		2	2377.0	15.753	39383.505	ng/L	
Hg2600-2	DM2	SAM	1709699-01B	100	10/3/2017 15:25:12	86458-1.RAW	3:25:12 PM	159870.80		2	159863.9	1059.721	105972.104	ng/L	
Hg2600-2	DM2	SAM	clean		10/3/2017 15:33:39	86459-1.RAW	3:33:39 PM	112.73		X	105.8	0.701	0.000	ng/L	
Hg2600-2	DM2	SAM	ws		10/3/2017 15:37:48	86460-1.RAW	3:37:48 PM	214.27		X	207.3	1.375	0.000	ng/L	
Hg2600-2	DM2	SAM	ws		10/3/2017 15:41:56	86461-1.RAW	3:41:56 PM	122.93		X	116.0	0.769	0.000	ng/L	
Hg2600-2	DM2	SAM	1709699-02B	5000	10/3/2017 15:46:04	86462-1.RAW	3:46:04 PM	131.94		2	125.0	0.826	4128.607	ng/L	
Hg2600-2	DM2	SAM	1709805-01B	100	10/3/2017 15:50:13	86463-1.RAW	3:50:13 PM	160.99		2	154.1	0.870	86.961	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	10/3/2017 15:54:21	86464-1.RAW	3:54:21 PM	770.97			764.0	5.065	5.065	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	10/3/2017 15:58:30	86465-1.RAW	3:58:30 PM	70.83			63.9	0.424	0.424	ng/L	
Hg2600-2	DM2	SAM	1709805-02B	100	10/3/2017 16:02:38	86466-1.RAW	4:02:38 PM	151.20		2	144.3	0.805	80.469	ng/L	
Hg2600-2	DM2	SAM	1709836-01B	100	10/3/2017 16:06:47	86467-1.RAW	4:06:47 PM	55.81		2	48.9	0.172	17.231	ng/L	
Hg2600-2	DM2	SAM	1709836-02B	100	10/3/2017 16:10:55	86468-1.RAW	4:10:55 PM	57.21		2	50.3	0.182	18.156	ng/L	
Hg2600-2	DM2	SAM	1709836-03B	100	10/3/2017 16:15:04	86469-1.RAW	4:15:04 PM	55.49		2	48.6	0.170	17.019	ng/L	
Hg2600-2	DM2	SAM	1709836-04B	100	10/3/2017 16:19:12	86470-1.RAW	4:19:12 PM	44.08		2	37.2	0.095	9.454	ng/L	
Hg2600-2	DM2	SAM	1709805-01C	5000	10/3/2017 16:23:20	86471-1.RAW	4:23:20 PM	3338.31		2	3331.4	22.083	110417.301	ng/L	
Hg2600-2	DM2	SAM	1709805-02C	5000	10/3/2017 16:27:29	86472-1.RAW	4:27:29 PM	3295.06		2	3288.1	21.797	108983.691	ng/L	
Hg2600-2	DM2	SAM	1709836-01C	2500	10/3/2017 16:31:37	86473-1.RAW	4:31:37 PM	1566.68		2	1559.7	10.335	25837.035	ng/L	
Hg2600-2	DM2	SAM	1709836-02C	2500	10/3/2017 16:35:46	86474-1.RAW	4:35:46 PM	1636.20		2	1629.3	10.796	26989.319	ng/L	
Hg2600-2	DM2	SAM	1709836-03C	2500	10/3/2017 16:39:54	86475-1.RAW	4:39:54 PM	1564.23		2	1557.3	10.319	25796.517	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	10/3/2017 16:44:03	86476-1.RAW	4:44:03 PM	776.41			769.5	5.102	5.102	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	10/3/2017 16:48:11	86477-1.RAW	4:48:11 PM	48.00			41.1	0.272	0.272	ng/L	
Hg2600-2	DM2	SAM	1709836-04C	2500	10/3/2017 16:52:20	86478-1.RAW	4:52:20 PM	1523.58		2	1516.6	10.049	25122.690	ng/L	
Hg2600-2	DM2	SAM	1709699-01RE1	50000	10/3/2017 16:56:28	86479-1.RAW	4:56:28 PM	3490.42		2	3483.5	23.095	1154734.890	ng/L	
Hg2600-2	DM2	SAM	1709699-02RE1	5000	10/3/2017 17:00:36	86480-1.RAW	5:00:36 PM	766.48		2	759.5	5.033	25163.242	ng/L	
Hg2600-2	DM2	SAM	1709805-01RE1	10000	10/3/2017 17:04:45	86481-1.RAW	5:04:45 PM	3392.86		2	3385.9	22.447	224466.425	ng/L	
Hg2600-2	DM2	SAM	1709805-02RE1	10000	10/3/2017 17:08:53	86482-1.RAW	5:08:53 PM	3122.71		2	3115.8	20.656	206555.982	ng/L	
Hg2600-2	DM2	SAM	1709836-01RE1	1000	10/3/2017 17:13:02	86483-1.RAW	5:13:02 PM	348.63		2	341.7	2.250	2250.231	ng/L	
Hg2600-2	DM2	SAM	1709836-02RE1	1000	10/3/2017 17:17:10	86484-1.RAW	5:17:10 PM	406.72		2	399.8	2.635	2635.345	ng/L	
Hg2600-2	DM2	SAM	1709836-03RE1	2500	10/3/2017 17:21:19	86485-1.RAW	5:21:19 PM	2735.54		2	2728.6	18.084	45210.515	ng/L	
Hg2600-2	DM2	SAM	1709836-04RE1	2500	10/3/2017 17:25:27	86486-1.RAW	5:25:27 PM	2290.34		2	2283.4	15.133	37831.431	ng/L	
Hg2600-2	DM2	SAM	1709699-01RE1B	5000	10/3/2017 17:29:36	86487-1.RAW	5:29:36 PM	8943.56		2	8936.6	59.245	296227.085	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	10/3/2017 17:33:44	86488-1.RAW	5:33:44 PM	778.02			771.1	5.112	5.112	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	10/3/2017 17:37:52	86489-1.RAW	5:37:52 PM	62.91			56.0	0.371	0.371	ng/L	
Hg2600-2	DM2	SAM	1709699-02RE1B	5000	10/3/2017 17:42:01	86490-1.RAW	5:42:01 PM	75.77		2	68.8	0.453	2266.610	ng/L	
Hg2600-2	DM2	SAM	F709485-DUP1	5000	10/3/2017 17:46:09	86491-1.RAW	5:46:09 PM	761.29		2	754.4	4.998	24991.150	ng/L	
Hg2600-2	DM2	SAM	F709485-MS1	5000	10/3/2017 17:50:18	86492-1.RAW	5:50:18 PM	3579.69		2	3572.8	23.684	118419.031	ng/L	
Hg2600-2	DM2	SAM	F709485-MSD1	5000	10/3/2017 17:54:26	86493-1.RAW	5:54:26 PM	3672.36		2	3665.4	24.298	121490.798	ng/L	
Hg2600-2	DM2	SAM	1709699-01RE2B	10000	10/3/2017 17:58:35	86494-1.RAW	5:58:35 PM	4454.04		2	4447.1	29.482	294821.282	ng/L	
Hg2600-2	DM2	SAM	1709699-02RE2B	1000	10/3/2017 18:02:43	86495-1.RAW	6:02:43 PM	236.11		2	229.2	1.504	1504.247	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	10/3/2017 18:06:52	86496-1.RAW	6:06:52 PM	762.17			755.2	5.007	5.007	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	10/3/2017 18:11:00	86497-1.RAW	6:11:00 PM	44.05			37.1	0.246	0.246	ng/L	

TotalMercury
EPA1631

Operat DM BlankS 6.9313 Calib Eqn:
 Worksl THq2600i CalibFa 150.83 Status:
 Methoc ### R: 0.9993 R²:
 Descrip THq26002-171003-1

Conc = (Area-6.931 Run Date: 10/3/2017 Blank SD: 2.955541036
 QC Warnings:8/QC F Run Time: 14:17:21 Blank RSD%: 42.64024466
 0.9987 CF SD: 6.554060259
 CF RSD%: 4.345240937

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	6.59					86382-1.RAW	10:12:09	993.44	Clean	OK	1
clean				0.00	0.00					86383-1.RAW	10:15:00	0.49	Clean	OK	1
ws				6.93	0.00					86384-1.RAW	10:19:09	5.21	Sample	OK	1
ws				6.93	0.02					86385-1.RAW	10:23:17	9.34	Sample	OK	1
ws				6.93	0.00					86386-1.RAW	10:27:25	4.60	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.02					86387-1.RAW	10:31:34	3.57	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.05					86388-1.RAW	10:35:42	8.09	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.06					86389-1.RAW	10:39:51	9.13	Sample	OK	1
SEQ-CAL1	A4		1	6.93	0.53			105.51		86390-1.RAW	10:43:59	86.50	Sample	OK	1
SEQ-CAL2	A5		1	6.93	0.96			96.11		86391-1.RAW	10:48:08	151.89	Sample	OK	1
SEQ-CAL3	A6		1	6.93	5.04			100.73		86392-1.RAW	10:52:16	766.63	Sample	OK	1
SEQ-CAL4	A7		1	6.93	20.50			102.48		86393-1.RAW	10:56:24	3098.38	Sample	OK	1
SEQ-CAL5	A8		1	6.93	38.07			95.17		86394-1.RAW	11:00:33	5748.85	Sample	OK	1
SEQ-ICV1	A9		1	6.93	4.76			95.19		86395-2.RAW	11:06:06	724.80	Sample	OK	1
F710187-BLK1	A10		20	6.93	1.64					86396-1.RAW	11:10:15	19.33	Sample	OK	1
F710187-BLK2	A11		20	6.93	1.44					86397-1.RAW	11:14:23	17.79	Sample	OK	1
F710187-BLK3	A12		20	6.93	0.83					86398-1.RAW	11:18:32	13.22	Sample	OK	1
*F710187-BLK4	A13		20	6.93	1.70					86399-1.RAW	11:22:40	19.75	Sample	OK	1
*F710187-BLK5	A14		20	6.93	0.76					86400-1.RAW	11:26:48	12.68	Sample	OK	1
F710187-BS1	A15		20	6.93	99.96					86401-1.RAW	11:30:57	760.77	Sample	OK	1
F710187-BSD1	A16		20	6.93	97.92					86402-1.RAW	11:35:05	745.41	Sample	OK	1
F710187-BS2	A17		400	6.93	1952.55					86403-1.RAW	11:39:14	743.20	Sample	OK	1
1709491-01RE2	A18		400	6.93	4327.56					86404-1.RAW	11:43:22	1638.78	Sample	OK	1
1709491-02RE1	A19		400	6.93	7109.93					86405-1.RAW	11:47:30	2687.96	Sample	OK	1
SEQ-CCV1	A20		1	6.93	4.75			95.00		86406-1.RAW	11:51:39	723.40	Sample	OK	1
SEQ-CCB1	A21		1	6.93	0.08			0.00		86407-1.RAW	11:55:47	19.31	Sample	OK	1
1709491-03RE1	B1		400	6.93	2013.15					86408-1.RAW	11:59:56	766.05	Sample	OK	1
1709491-04RE1	B2		400	6.93	5178.04					86409-1.RAW	12:04:04	1959.48	Sample	OK	1
1709491-05RE1	B3		400	6.93	3692.58					86410-1.RAW	12:08:13	1399.34	Sample	OK	1
1709491-06RE1	B4		400	6.93	3509.89					86411-1.RAW	12:12:21	1330.45	Sample	OK	1
1709491-07RE1	B5		400	6.93	5242.41					86412-1.RAW	12:16:29	1983.75	Sample	OK	1
1709491-08RE1	B6		400	6.93	7743.49					86413-1.RAW	12:20:38	2926.87	Sample	OK	1
1709491-09RE1	B7		400	6.93	955.66					86414-1.RAW	12:24:46	367.30	Sample	OK	1
1709491-10RE1	B8		400	6.93	3673.05					86415-1.RAW	12:28:55	1391.97	Sample	OK	1
1709491-11RE1	B9		400	6.93	1541.02					86416-1.RAW	12:33:03	588.02	Sample	OK	1
1709491-12RE1	B10		400	6.93	3104.27					86417-1.RAW	12:37:12	1177.50	Sample	OK	1
SEQ-CCV2	B11		1	6.93	4.80			95.93		86418-1.RAW	12:41:20	730.40	Sample	OK	1
SEQ-CCB2	B12		1	6.93	0.14			0.00		86419-1.RAW	12:45:28	27.78	Sample	OK	1
1709491-13RE1	B13		400	6.93	3192.66					86420-1.RAW	12:49:37	1210.83	Sample	OK	1
1709491-14RE1	B14		400	6.93	3659.36					86421-1.RAW	12:53:45	1386.81	Sample	OK	1
1709491-15RE1	B15		400	6.93	3330.67					86422-1.RAW	12:57:54	1262.87	Sample	OK	1
1709491-16RE1	B16		400	6.93	2558.08					86423-1.RAW	13:02:02	971.54	Sample	OK	1
1709491-17RE1	B17		400	6.93	1575.48					86424-1.RAW	13:06:10	601.02	Sample	OK	1
1709491-18RE1	B18		400	6.93	2572.96					86425-1.RAW	13:10:19	977.15	Sample	OK	1
1709491-19RE1	B19		400	6.93	1602.70					86426-1.RAW	13:14:27	611.28	Sample	OK	1
1709491-20RE1	B20		400	6.93	3538.69					86427-1.RAW	13:18:36	1341.31	Sample	OK	1
F710187-DUP1	B21		400	6.93	2015.65					86428-1.RAW	13:22:44	767.00	Sample	OK	1
F710187-MS1	C1		400	6.93	8116.45			402.47		86429-1.RAW	13:26:53	3067.50	Sample	OK	1
SEQ-CCV3	C2		1	6.93	5.02			100.41		86430-1.RAW	13:31:01	764.17	Sample	OK	1
SEQ-CCB3	C3		1	6.93	0.18			0.00		86431-1.RAW	13:35:09	33.45	Sample	OK	1
F710187-MSD1	C4		400	6.93	8201.62					86432-1.RAW	13:39:18	3099.62	Sample	OK	1
F710187-MSD2	C5		400	6.93	6160.80			75.10		86433-1.RAW	13:43:26	2330.06	Sample	OK	1
F709485-BLK1	C6		400	6.93	6004.16					86434-1.RAW	13:47:35	2270.99	Sample	OK	1
F709485-BLK2	C7		100	6.93	22.27					86435-1.RAW	13:51:43	40.53	Sample	OK	1
F709485-BLK3	C8		100	6.93	13.43					86436-1.RAW	13:55:51	27.18	Sample	OK	1
F709485-BS1	C9		100	6.93	9.83					86437-1.RAW	14:00:00	21.76	Sample	OK	1
F709485-BSD1	C10		400	6.93	1794.83					86438-1.RAW	14:04:08	683.73	Sample	OK	1
1709699-01	C11		400	6.93	1770.32					86439-1.RAW	14:08:17	674.49	Sample	OK	1
1709699-02	C12		5000	6.93	1151780.54					86440-1.RAW	14:12:25	34752.25	Sample	FB	1
ws	C13		5000	6.93	29317.69					86441-1.RAW	14:16:34	891.35	Sample	OK	1
ws				6.93	0.66					86442-1.RAW	14:21:30	106.98	Sample	OK	1
ws				6.93	0.24					86443-1.RAW	14:25:39	43.89	Sample	OK	1
clean				0.00	0.07					86444-1.RAW	14:28:30	11.06	Clean	OK	1
ws				6.93	0.23					86445-1.RAW	14:32:38	42.08	Sample	OK	1
SEQ-CCV4	C14		1	6.93	4.83			96.51		86446-1.RAW	14:36:47	734.74	Sample	OK	1
SEQ-CCB4	C15		1	6.93	0.13			0.00		86447-1.RAW	14:40:55	26.89	Sample	OK	1
F710187-DUP2	C16		400	6.93	4246.28					86448-1.RAW	14:45:04	1608.13	Sample	OK	1

1709805-01	C17	2500	6.93	234235.95		86449-1.RAW	14:49:12	14139.14	Sample	FB	1
1709805-02	C18	2500	6.93	217733.18		86450-1.RAW	14:53:21	13143.48	Sample	OK	1
clean			0.00	0.36		86451-1.RAW	14:56:12	54.15	Clean	OK	1
ws			6.93	0.58		86452-1.RAW	15:00:21	94.22	Sample	OK	1
ws			6.93	0.29		86453-1.RAW	15:04:30	51.37	Sample	OK	1
1709836-01	C19	2500	6.93	2427.46		86454-1.RAW	15:08:38	153.39	Sample	OK	1
1709836-02	C20	2500	6.93	2944.50		86455-1.RAW	15:12:47	184.58	Sample	OK	1
1709836-03	C21	2500	6.93	44805.73		86456-1.RAW	15:16:55	2710.21	Sample	OK	1
1709836-04	A1	2500	6.93	39398.68		86457-1.RAW	15:21:04	2383.98	Sample	OK	1
1709699-01B	A2	100	6.93	105987.28		86458-1.RAW	15:25:12	159870.80	Sample	OLFB	1
clean			0.00	0.75		86459-1.RAW	15:33:39	112.73	Clean	OK	1
ws			6.93	1.37		86460-1.RAW	15:37:48	214.27	Sample	OK	1
ws			6.93	0.77		86461-1.RAW	15:41:56	122.93	Sample	OK	1
1709699-02B	A3	5000	6.93	4143.78		86462-1.RAW	15:46:04	131.94	Sample	OK	1
1709805-01B	A4	100	6.93	102.14		86463-1.RAW	15:50:13	160.99	Sample	OK	1
SEQ-CCV5	A5	1	6.93	5.07	101.31	86464-1.RAW	15:54:21	770.97	Sample	OK	1
SEQ-CCB5	A6	1	6.93	0.42	0.00	86465-1.RAW	15:58:30	70.83	Sample	OK	1
1709805-02B	A7	100	6.93	95.65		86466-1.RAW	16:02:38	151.20	Sample	OK	1
1709836-01B	A8	100	6.93	32.41		86467-1.RAW	16:06:47	55.81	Sample	OK	1
1709836-02B	A9	100	6.93	33.33		86468-1.RAW	16:10:55	57.21	Sample	OK	1
1709836-03B	A10	100	6.93	32.20		86469-1.RAW	16:15:04	55.49	Sample	OK	1
1709836-04B	A11	100	6.93	24.63		86470-1.RAW	16:19:12	44.08	Sample	OK	1
1709805-01C	A12	5000	6.93	110432.48		86471-1.RAW	16:23:20	3338.31	Sample	OK	1
1709805-02C	A13	5000	6.93	108998.87		86472-1.RAW	16:27:29	3295.06	Sample	OK	1
1709836-01C	A14	2500	6.93	25852.21		86473-1.RAW	16:31:37	1566.68	Sample	OK	1
1709836-02C	A15	2500	6.93	27004.50		86474-1.RAW	16:35:46	1636.20	Sample	OK	1
1709836-03C	A16	2500	6.93	25811.69		86475-1.RAW	16:39:54	1564.23	Sample	OK	1
SEQ-CCV6	A17	1	6.93	5.10	102.03	86476-1.RAW	16:44:03	776.41	Sample	OK	1
SEQ-CCB6	A18	1	6.93	0.27	0.00	86477-1.RAW	16:48:11	48.00	Sample	OK	1
1709836-04C	A19	2500	6.93	25137.87		86478-1.RAW	16:52:20	1523.58	Sample	OK	1
1709699-01RE1	A20	50000	6.93	1154750.07		86479-1.RAW	16:56:28	3490.42	Sample	OK	1
1709699-02RE1	A21	5000	6.93	25178.42		86480-1.RAW	17:00:36	766.48	Sample	OK	1
1709805-01RE1	B1	10000	6.93	224481.60		86481-1.RAW	17:04:45	3392.86	Sample	OK	1
1709805-02RE1	B2	10000	6.93	206571.16		86482-1.RAW	17:08:53	3122.71	Sample	OK	1
1709836-01RE1	B3	1000	6.93	2265.41		86483-1.RAW	17:13:02	348.63	Sample	OK	1
1709836-02RE1	B4	1000	6.93	2650.52		86484-1.RAW	17:17:10	406.72	Sample	OK	1
1709836-03RE1	B5	2500	6.93	45225.69		86485-1.RAW	17:21:19	2735.54	Sample	OK	1
1709836-04RE1	B6	2500	6.93	37846.61		86486-1.RAW	17:25:27	2290.34	Sample	OK	1
1709699-01RE1B	B7	5000	6.93	296242.26		86487-1.RAW	17:29:36	8943.56	Sample	OK	1
SEQ-CCV7	B8	1	6.93	5.11	102.24	86488-1.RAW	17:33:44	778.02	Sample	OK	1
SEQ-CCB7	B9	1	6.93	0.37	0.00	86489-1.RAW	17:37:52	62.91	Sample	OK	1
1709699-02RE1B	B10	5000	6.93	2281.79		86490-1.RAW	17:42:01	75.77	Sample	OK	1
F709485-DUP1	B11	5000	6.93	25006.33		86491-1.RAW	17:46:09	761.29	Sample	OK	1
F709485-MS1	B12	5000	6.93	118434.21	473.60	86492-1.RAW	17:50:18	3579.69	Sample	OK	1
F709485-MSD1	B13	5000	6.93	121505.98		86493-1.RAW	17:54:26	3672.36	Sample	OK	1
1709699-01RE2B	B16	10000	6.93	294836.46		86494-1.RAW	17:58:35	4454.04	Sample	OK	1
1709699-02RE2B	B17	1000	6.93	1519.42		86495-1.RAW	18:02:43	236.11	Sample	OK	1
SEQ-CCV8	B14	1	6.93	5.01	100.14	86496-1.RAW	18:06:52	762.17	Sample	OK	1
SEQ-CCB8	B15	1	6.93	0.25	0.00	86497-1.RAW	18:11:00	44.05	Sample	OK	1

7J04013

PEER-REVIEWED



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *PC 10/14/17* Analyzed: 10/3/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J04013-IBL1 ✓	QC	1			
7J04013-IBL2 ✓	QC	2			
7J04013-IBL3 ✓	QC	3			
7J04013-CAL1 ✓	QC	4	1704505	✓	
7J04013-CAL2 ✓	QC	5	1704506	✓	
7J04013-CAL3 ✓	QC	6	1704507	✓	
7J04013-CAL4 ✓	QC	7	1704508	✓	
7J04013-CAL5 ✓	QC	8	1704509	✓	
7J04013-ICV1 ✓	QC	9	1705628	✓	
F710187-BLK1 ✓	QC	10			
F710187-BLK2 ✓	QC	11			
F710187-BLK3 ✓	QC	12			
F710187-BLK4 ✓	QC	13			
F710187-BLK5 ✓	QC	14			
F710187-BS1 ✓	QC	15			
F710187-BSD1 ✓	QC	16			
F710187-BS2 ✓	QC	17			
1709491-01RE2 ✓	Hg-CVAFS-T-7030	18			From F709411 by BC on 02-Oct-17
1709491-02RE1 ✓	Hg-CVAFS-T-7030	19			From F709411 by BC on 02-Oct-17
7J04013-CCV1 ✓	QC	20	1705628	✓	
7J04013-CCB1 ✓	QC	21			
1709491-03RE1 ✓	Hg-CVAFS-T-7030	22			From F709411 by BC on 02-Oct-17
1709491-04RE1 ✓	Hg-CVAFS-T-7030	23			From F709411 by BC on 02-Oct-17
1709491-05RE1 ✓	Hg-CVAFS-T-7030	24			From F709411 by BC on 02-Oct-17
1709491-06RE1 ✓	Hg-CVAFS-T-7030	25			From F709411 by BC on 02-Oct-17
1709491-07RE1 ✓	Hg-CVAFS-T-7030	26			From F709411 by BC on 02-Oct-17
1709491-08RE1 ✓	Hg-CVAFS-T-7030	27			From F709411 by BC on 02-Oct-17
1709491-09RE1 ✓	Hg-CVAFS-T-7030	28			From F709411 by BC on 02-Oct-17
1709491-10RE1 ✓	Hg-CVAFS-T-7030	29			From F709411 by BC on 02-Oct-17
1709491-11RE1 ✓	Hg-CVAFS-T-7030	30			From F709411 by BC on 02-Oct-17
1709491-12RE1 ✓	Hg-CVAFS-T-7030	31			From F709411 by BC on 02-Oct-17
7J04013-CCV2 ✓	QC	32	1705628	✓	
7J04013-CCB2 ✓	QC	33			
1709491-13RE1 ✓	Hg-CVAFS-T-7030	34			From F709411 by BC on 02-Oct-17
1709491-14RE1 ✓	Hg-CVAFS-T-7030	35			From F709411 by BC on 02-Oct-17

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/3/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709491-15RE1 ✓	Hg-CVAFS-T-7030	36			From F709411 by BC on 02-Oct-17
1709491-16RE1 ✓	Hg-CVAFS-T-7030	37			From F709411 by BC on 02-Oct-17
1709491-17RE1 ✓	Hg-CVAFS-T-7030	38			From F709411 by BC on 02-Oct-17
1709491-18RE1 ✓	Hg-CVAFS-T-7030	39			From F709411 by BC on 02-Oct-17
1709491-19RE1 ✓	Hg-CVAFS-T-7030	40			From F709411 by BC on 02-Oct-17
1709491-20RE1 ✓	Hg-CVAFS-T-7030	41			From F709411 by BC on 02-Oct-17
F710187-DUP1 ✓	QC	42			
F710187-MS1 ✓	QC	43			
7J04013-CCV3 ✓	QC	44	1705628	✓	
7J04013-CCB3 ✓	QC	45			
F710187-MSD1 ✓	QC	46			
F710187-MS2 ✓	QC	47			
F710187-MSD2 ✓	QC	48			
7J04013-CCV4 ✓	QC	49	1705628	✓	
7J04013-CCB4 ✓	QC	50			
F710187-DUP2 ✓	QC	51			
7J04013-CCV5 ✓	QC	52	1705628	✓	
7J04013-CCB5 ✓	QC	53			

Don M... 10/3/17
Samples Loaded By Date

B... 10/4/17
Data Processed By Date

PREPARATION BENCH SHEET

F710187

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710187-BLK1	Blank	0.5	40					
F710187-BLK2	Blank	0.5	40					
F710187-BLK3	Blank	0.5	40					
F710187-BLK4	Pre homog blank	0.512	40					
F710187-BLK5	Post homog blank	0.554	40					
F710187-BS1	LCS	0.5	40	1704421	40			
F710187-BS2	DORM4	0.248	40	1703305	248			
F710187-BSD1	LCS Dup	0.5	40	1704421	40			
F710187-DUP1	Duplicate [1709491-01RE2]	0.538	40					
F710187-DUP2	Duplicate [1709491-01RE2]	0.546	40					AD
F710187-MS1	Matrix Spike [1709491-01RE2]	0.543	40	1705554	200			
F710187-MS2	Matrix Spike [1709491-11RE1]	0.533	40	1705554	200			
F710187-MSD1	Matrix Spike Dup [1709491-01RE2]	0.536	40	1705554	200			
F710187-MSD2	Matrix Spike Dup [1709491-11RE1]	0.509	40	1705554	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1705610	THg Washstation (0.5% BrCl)	
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F710187

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709491-01RE2	L9-45_17LT015_091317_LOB_01_TA	0.546	40	QC	-	-	MD/MS/MSD From F709411 by BC or	From F709411 by BC on 02-Oct-17
1709491-02RE1	L9-45_17LT015_091317_LOB_02_TA	0.518	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-03RE1	L9-45_17LT015_091317_LOB_03_TA	0.577	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-04RE1	L9-45_17LT015_091317_LOB_04_TA	0.576	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-05RE1	L9-45_17LT015_091317_LOB_05_TA	0.575	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-06RE1	L9-45_17LT015_091317_LOB_06_TA	0.534	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-07RE1	L9-45_17LT015_091317_LOB_07_TA	0.546	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-08RE1	L9-45_17LT015_091317_LOB_08_TA	0.524	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-09RE1	L9-45_17LT016_091317_LOB_09_TA	0.582	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-10RE1	L9-45_17LT016_091317_LOB_10_TA	0.539	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-11RE1	L9-45_17LT016_091317_LOB_11_TA	0.512	40	QC	-	-	MS/MSD From F709411 by BC on 02-	From F709411 by BC on 02-Oct-17
1709491-12RE1	L9-45_17LT016_091317_LOB_12_TA	0.503	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-13RE1	L9-45_17LT016_091317_LOB_13_TA	0.579	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-14RE1	L9-45_17LT016_091317_LOB_14_TA	0.511	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-15RE1	L9-45_17LT017_091317_LOB_15_TA	0.598	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-16RE1	L9-45_17LT017_091317_LOB_16_TA	0.57	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-17RE1	L9-45_17LT017_091317_LOB_17_TA	0.551	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-18RE1	L9-45_17LT017_091317_LOB_18_TA	0.582	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
1709491-19RE1	L9-45_17LT018_091317_LOB_19_TA	0.546	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F710187

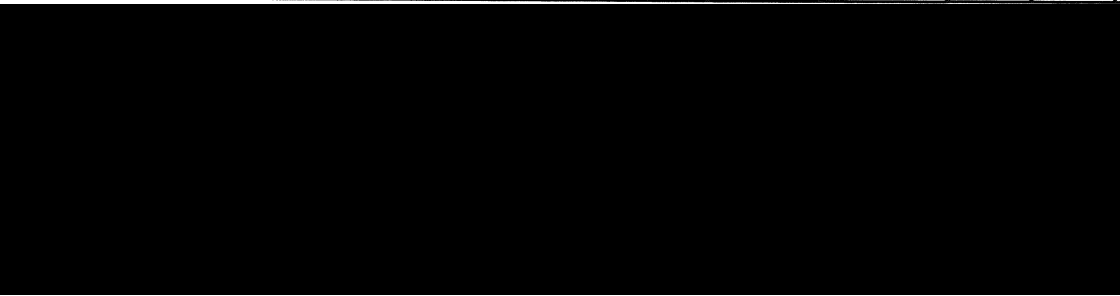
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709491-20RE1	L9-45_17LT018_091317_LOB_20_TA	0.589	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17
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PREPARATION BENCH SHEET

2000-2
10/9/17 DM

F710187

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710187-BLK1	Blank	0.5	40					20X ✓
F710187-BLK2	Blank	0.5	40					20X ✓
F710187-BLK3	Blank	0.5	40					20X ✓
F710187-BLK4	Pre homog blank	0.512	40					20X ✓
F710187-BLK5	Post homog blank	0.554	40					20X ✓
F710187-BS1	LCS	0.5	40	1704421	40			20X ✓
F710187-BS2	DORM4	0.248	40	1703305	248			400X ✓
F710187-BSD1	LCS Dup	0.5	40	1704421	40			20X ✓
F710187-DUP1	Duplicate [1709491-01RE2]	0.538	40					400X ✓
F710187-MS1	Matrix Spike [1709491-01RE2]	0.543	40	1705554	200			400X ✓
F710187-MS2	Matrix Spike [1709491-11RE1]	0.533	40	1705554	200			400X ✓
F710187-MSD1	Matrix Spike Dup [1709491-01RE2]	0.536	40	1705554	200			400X ✓
F710187-MSD2	Matrix Spike Dup [1709491-11RE1]	0.509	40	1705554	200			400X ✓

Standard ID(s):	Description:	Expiration:
1703305	DORM-4	29-May-20 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00

400X = 125ul ✓
20X = 2.5mL ✓

DUP2 - AD 400X ✓
Source 1709491-01RE2

1705610
1705611
1703182
1705779

Due Date: 10/17/2017

PREPARATION BENCH SHEET

2600-2
10/3/17 DM

F710187

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709491-01RE2	L9-45_17LT015_091317_LOB_01_TA	0.546	40	QC	-	-	MD/MS/MSD From F709411 by BC or DM	From F709411 by BC on 02-Oct-17 100X 400X
1709491-02RE1	L9-45_17LT015_091317_LOB_02_TA	0.518	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 1031 100X 400X
1709491-03RE1	L9-45_17LT015_091317_LOB_03_TA	0.577	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X
1709491-04RE1	L9-45_17LT015_091317_LOB_04_TA	0.576	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X
1709491-05RE1	L9-45_17LT015_091317_LOB_05_TA	0.575	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X
1709491-06RE1	L9-45_17LT015_091317_LOB_06_TA	0.534	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X
1709491-07RE1	L9-45_17LT015_091317_LOB_07_TA	0.546	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X
1709491-08RE1	L9-45_17LT015_091317_LOB_08_TA	0.524	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X
1709491-09RE1	L9-45_17LT016_091317_LOB_09_TA	0.582	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X
1709491-10RE1	L9-45_17LT016_091317_LOB_10_TA	0.539	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X
1709491-11RE1	L9-45_17LT016_091317_LOB_11_TA	0.512	40	QC	-	-	MS/MSD From F709411 by BC on 02-	From F709411 by BC on 02-Oct-17 400X
1709491-12RE1	L9-45_17LT016_091317_LOB_12_TA	0.503	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X
1709491-13RE1	L9-45_17LT016_091317_LOB_13_TA	0.579	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X
1709491-14RE1	L9-45_17LT016_091317_LOB_14_TA	0.511	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X
1709491-15RE1	L9-45_17LT017_091317_LOB_15_TA	0.598	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X
1709491-16RE1	L9-45_17LT017_091317_LOB_16_TA	0.57	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X
1709491-17RE1	L9-45_17LT017_091317_LOB_17_TA	0.551	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X
1709491-18RE1	L9-45_17LT017_091317_LOB_18_TA	0.582	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X
1709491-19RE1	L9-45_17LT018_091317_LOB_19_TA	0.546	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 400X

Due Date: 10/17/2017

PREPARATION BENCH SHEET

2600-2
10/3/17 DM

F710187

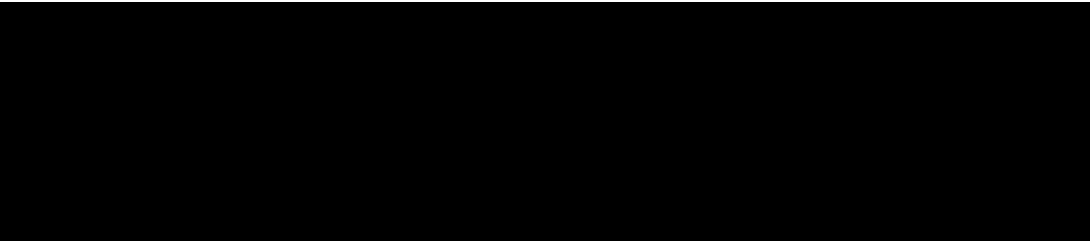
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/2/2017

1709491-20RE1	L9-45_17LT018_091317_LOB_20_TA	0.589	40	-	-	-	From F709411 by BC on 02-Oct-17	From F709411 by BC on 02-Oct-17 10X
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Failing Data Report - 7J04013

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F710187-DUP1	Hg-CVAFS-T-7030	149.8	14.9	316.9	316.9		ng/g				71.6	24.00	PASS-OVER	FAIL-DUP	QR-08

Be Cing 10/4/17
 Analyst Reviewed By Date

[Signature] 10/4/17
 Peer Reviewed By Date

ANALYSIS SEQUENCE QUALITY ASSURANCE

7J04014



PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R* *A* *10/4/17*
Analyzed: 10/3/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J04014-IBL1 ✓	QC	1			
7J04014-IBL2 ✓	QC	2			
7J04014-IBL3 ✓	QC	3			
7J04014-CAL1 ✓	QC	4	1704505		
7J04014-CAL2 ✓	QC	5	1704506		
7J04014-CAL3 ✓	QC	6	1704507		
7J04014-CAL4 ✓	QC	7	1704508		
7J04014-CAL5 ✓	QC	8	1704509		
7J04014-ICV1 ✓	QC	9	1705628		
7J04014-CCV1 ✓	QC	10	1705628		
7J04014-CCB1 ✓	QC	11			
7J04014-CCV2 ✓	QC	12	1705628		
7J04014-CCB2 ✓	QC	13			
7J04014-CCV3 ✓	QC	14	1705628		
7J04014-CCB3 ✓	QC	15			
F709485-BLK1 ✓	QC	16			
F709485-BLK2 ✓	QC	17			
F709485-BLK3 ✓	QC	18			
F709485-BS1 ✓	QC	19			
F709485-BSD1 ✓	QC	20			
1709699-01 ✓	Hg_FSTM_TRAP_A	21			
1709699-02 ✓	Hg_FSTM_TRAP_A	22			
7J04014-CCV4 ✓	QC	23	1705628		
7J04014-CCB4 ✓	QC	24			
1709805-01 ✓	Hg_FSTM_TRAP_A	25			
1709805-02 ✓	Hg_FSTM_TRAP_A	26			
1709836-01 ✓	Hg_FSTM_TRAP_A	27			AFS - Take photos of trap if heavy particulate present and send to PM
1709836-02 ✓	Hg_FSTM_TRAP_A	28			AFS - Take photos of trap if heavy particulate present and send to PM
1709836-03 ✓	Hg_FSTM_TRAP_A	29			AFS - Take photos of trap if heavy particulate present and send to PM
1709836-04 ✓	Hg_FSTM_TRAP_A	30			AFS - Take photos of trap if heavy particulate present and send to PM
7J04014-CCV5 ✓	QC	31	1705628		
7J04014-CCB5 ✓	QC	32			
7J04014-CCV6 ✓	QC	33	1705628		
7J04014-CCB6 ✓	QC	34			
1709699-01RE1 ✓	Hg_FSTM_TRAP_A	35			Added 10/3/2017 by DM2

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/3/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709699-02RE1 ✓	Hg_FSTM_TRAP_A	36			Added 10/3/2017 by DM2
1709805-01RE1 ✓	Hg_FSTM_TRAP_A	37			Added 10/3/2017 by DM2
1709805-02RE1 ✓	Hg_FSTM_TRAP_A	38			Added 10/3/2017 by DM2
1709836-01RE1 ✓	Hg_FSTM_TRAP_A	39			Added 10/3/2017 by DM2
1709836-02RE1 ✓	Hg_FSTM_TRAP_A	40			Added 10/3/2017 by DM2
1709836-03RE1 ✓	Hg_FSTM_TRAP_A	41			Added 10/3/2017 by DM2
1709836-04RE1 ✓	Hg_FSTM_TRAP_A	42			Added 10/3/2017 by DM2
7J04014-CCV7 ✓	QC	43	1705628 ✓		
7J04014-CCB7 ✓	QC	44			
F709485-DUP1 ✓	QC	45			
F709485-MS1 ✓	QC	46			
F709485-MSD1 ✓	QC	47			
7J04014-CCV8 ✓	QC	48	1705628 ✓		
7J04014-CCB8 ✓	QC	49			

Don Mjorzen 10/3/17
Samples Loaded By Date

Becis 10/4/17
Data Processed By Date

PREPARATION BENCH SHEET

F709485

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 9/29/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709485-BLK1	Blank	1	100					
F709485-BLK2	Blank	1	100					
F709485-BLK3	Blank	1	100					
F709485-BS1	LCS	1	100	1705554	200			
F709485-BSD1	LCS Dup	1	100	1705554	200			
F709485-DUP1	Duplicate [1709699-02RE1] ✓	1	100					
F709485-MS1	Matrix Spike [1709699-02RE1] ✓	0.0001	0.01	1704422	100 ✓			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.01mL
F709485-MSD1	Matrix Spike Dup [1709699-02RE1]	0.0001	0.01	1704422	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.01mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704097	FSTM Lot 170707B	06-Jul-18 00:00
			1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705777	5% BrCl	
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705780	70/30 Digestion Acid	25-Mar-18 00:00
			1705859		28-Mar-18 00:00

PREPARATION BENCH SHEET

F709485

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 9/29/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709699-01	561-122-15	1	100	-	-	-	19.05 L	
1709699-01RE1	561-122-15	1	100	-	-	-	19.05 L Added 10/3/2017 by DM2	Added 10/3/2017 by DM2
1709699-01RE2	561-122-15	1	100	-	-	-	19.05 L Added 10/3/2017 by DM2	Added 10/3/2017 by DM2
1709699-02	561-122-16	1	100	-	-	-	9.906 L	
1709699-02RE1	561-122-16	1	100	-	-	-	9.906 L Added 10/3/2017 by DM2	Added 10/3/2017 by DM2
1709699-02RE2	561-122-16	1	100	-	-	-	9.906 L Added 10/3/2017 by DM2	Added 10/3/2017 by DM2
1709805-01	EFGS08534 CO4 Stack Trap A	1	100	-	-	-	Sample Volume: 1847.97 L	
1709805-01RE1	EFGS08534 CO4 Stack Trap A	1	100	-	-	-	Sample Volume: 1847.97 L Added 10/3/	Added 10/3/2017 by DM2
1709805-02	EFGS08548 CO4 Stack Trap B	1	100	-	-	-	Sample Volume: 1847.87 L	
1709805-02RE1	EFGS08548 CO4 Stack Trap B	1	100	-	-	-	Sample Volume: 1847.87 L Added 10/3/	Added 10/3/2017 by DM2
1709836-01	EFGS10101 33 Trap A 9/20/17-9/22/17	1	100	-	-	-	Sample Volume: 366.706 AFS - Take pl	
1709836-01RE1	EFGS10101 33 Trap A 9/20/17-9/22/17	1	100	-	-	-	Sample Volume: 366.706 Added 10/3/2	Added 10/3/2017 by DM2
1709836-02	EFGS09193 33 Trap B 9/20/17-9/22/17	1	100	-	-	-	Sample Volume: 465.215 AFS - Take pl	
1709836-02RE1	EFGS09193 33 Trap B 9/20/17-9/22/17	1	100	-	-	-	Sample Volume: 465.215 Added 10/3/2	Added 10/3/2017 by DM2
1709836-03	EFGS09448 31/32 Trap B 9/19/17-9/22/17	1	100	-	-	-	Sample Volume: 1617.265 AFS - Take pl	
1709836-03RE1	EFGS09448 31/32 Trap B 9/19/17-9/22/17	1	100	-	-	-	Sample Volume: 1617.265 Added 10/3/	Added 10/3/2017 by DM2
1709836-04	EFGS09273 31/32 Trap A 9/19/17-9/22/17	1	100	-	-	-	Sample Volume: 1967.923 AFS - Take pl	
1709836-04RE1	EFGS09273 31/32 Trap A 9/19/17-9/22/17	1	100	-	-	-	Sample Volume: 1967.923 Added 10/3/	Added 10/3/2017 by DM2

PREPARATION BENCH SHEET

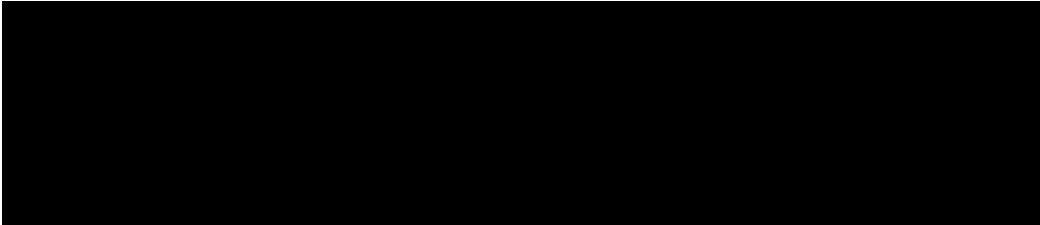
F709485

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 9/29/2017



PREPARATION BENCH SHEET

200-2
10/3/17 DM

F709485

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 9/29/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709485-BLK1	Blank	1	100					100X -
F709485-BLK2	Blank	1	100					100X -
F709485-BLK3	Blank	1	100					100X -
F709485-BS1	LCS	1	100	1705554	200			400X -
F709485-BSD1	LCS Dup	1	100	1705554	200			400X -
F709485-MS1	Matrix Spike 1709609-02RE1	1	100	1704122	100			5000X -
F709485-MSD1	Matrix Spike Dup 1709609-02RE1	1	100	1704122	100			5000X -

<u>Standard ID(s):</u> 1705554	<u>Description:</u> THg 1,000ng/mL Secondary Spiking Standard	<u>Expiration:</u> 18-Mar-18 00:00	<u>Reagent ID(s):</u> 1704097 1705777 1705780 1705859	<u>Description:</u> FSTM Lot 170707B 5% BrCl 70/30 Digestion Acid	<u>Expiration:</u> 06-Jul-18 00:00 22-Jan-18 00:00 25-Mar-18 00:00 28-Mar-18 00:00
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Dup1 - 1709609-02RE1
Source 5000X -

1705410
1705411
1703182
1705779

1000X = 50ul ✓
100X = 500ul ✓
400X = 125ul ✓
2500X = 20ul ✓
5000X = 100ul into 10mL (100X) ✓
1000ul into 50mL (50X) ✓
50,000X = 100ul into 10mL (100X) ✓
100ul into 50mL (500X) ✓
10,000X = 100ul into 10mL (100X) ✓
500ul into 50mL (100X) ✓

Due Date: 10/3/2017

PREPARATION BENCH SHEET

F709485

Eurofins Frontier Global Sciences, Inc.

200-82

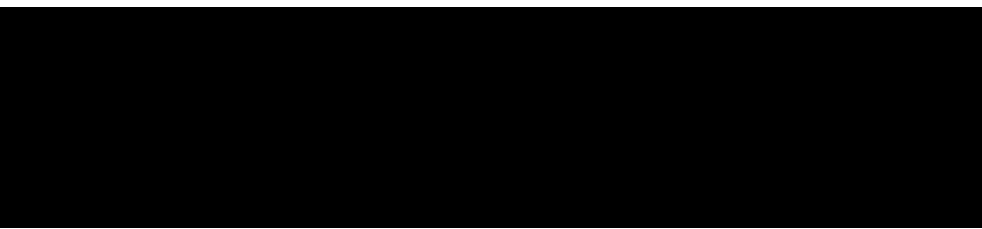
10/3/17 DM

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 9/29/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments	C
1709699-01	561-122-15	1	100	-	-	-	19.05 L 5000X → 50,000X ✓	100X → 5000X → 10,000X ✓	
1709699-02	561-122-16	1	100	-	-	-	9.906 L 5000X → 5000X ✓	5000X ✓ 100X 5000X → 1000X ✓	
1709805-01	EFGS08534 CO4 Stack Trap A	1	100	-	-	-	Sample Volume: 1847.97 L 2500X → 10,000X ✓	100X ✓ 1000X ✓ 5000X ✓	
1709805-02	EFGS08548 CO4 Stack Trap B	1	100	-	-	-	Sample Volume: 1847.87 L 2500X → 10,000X ✓	100X ✓	5000X ✓
1709836-01	EFGS10101 33 Trap A 9/20/17-9/22/17	1	100	-	-	-	Sample Volume: 366.706 AFS - Take pl 2500X → 1000X ✓	100X ✓	2500X ✓
1709836-02	EFGS09193 33 Trap B 9/20/17-9/22/17	1	100	-	-	-	Sample Volume: 465.215 AFS - Take pl 2500X → 1000X ✓	100X ✓	2500X ✓
1709836-03	EFGS09448 31/32 Trap B 9/19/17-9/22/17	1	100	-	-	-	Sample Volume: 1617.265 AFS - Take pl 2500X → 2500X ✓	100X ✓	2500X ✓
1709836-04	EFGS09273 31/32 Trap A 9/19/17-9/22/17	1	100	-	-	-	Sample Volume: 1967.923 AFS - Take pl 2500X → 2500X ✓	100X ✓	2500X ✓



wf 9/29/17

Trap Digestions

Name: CWP

Date: 9/29/17

Batch ID: F709485
F709699

Work Order(s): 1709699, 1709805, 1709836,

Analysis: Total Hg Other

Sample Matrix: FSTM KCl PHg Plug Other

Prep: 70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)

start time: 18:10, start temp (°C): 51.0 (raw) 58.7 (w/ CF)

end time: 20:10, end temp (°C): 67.0 (raw) 66.7 (w/ CF) Timer? Yes No

5% BrCl Oxidation (EFGS-031) start time: _____ (allow samples to sit for at least 4 hr before analysis)

Other _____

Sample ID Number	Digest vol. (mL)	
F709485	100	BLK 1
F709485	100	BLK 2
F709485	100	BLK 3
F709485	100	BS 1
F709485	100	BSD 1
1709699	100	01A
1709699	100	01B
1709699	100	02A
1709699	100	02B
1709805	100	01A
1709805	100	01B
1709805	100	01C
1709805	100	02A
1709805	100	02B
1709805	100	02C
1709836	100	01A
1709836	100	01B
1709836	100	01C
1709836	100	02A
1709836	100	02B
1709836	100	02C
1709836	100	03A
1709836	100	03B
1709836	100	03C
1709836	100	04A
1709836	100	04B
1709836	100	04C

Spike ID: 1705554

Spike Amount (µL): 200

Spike Witness: AMB 9/29/17

BrCl ID: 1705777

70/30: 1705859, 1705780

Other: N/A

Thermometer: 13698

Dispensers: 02K27494
04N73497
Other 15406623

Pipette ID: 1111111

Cal. Date: 9/26/17

Vials and Jars lot# 00088335

Trap Material Lot#: 1704097, 1705501

Loader Mass Verified: Yes No

Comments:
* BLK 1 FSTM is 1705501 (LORA)
1709699: 01, 02 unspiked
1709805: Both c-beds spiked @ 12000 ng.
1709836: All c-beds spiked @ 2700 ug. Traps 02, 04 had particulate in front of mouth. A bed glass wool plug.
1709699 01, 02 had powerful hydrocarbon smell and reacted with addition of 70:30 a little.
wf 9/29/17

Failing Data Report - 7J04014

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1709699-01	✓ Hg_FSTM_TRAP_A	115180	250.00				ng/Trap						FAIL-OVER	PASS	E -
1709805-01	✓ Hg_FSTM_TRAP_A	23422	125.00				ng/Trap						FAIL-OVER	PASS	E -
1709805-02	✓ Hg_FSTM_TRAP_A	21772	125.00				ng/Trap						FAIL-OVER	PASS	E -


 Analyst Reviewed By _____

 Date _____


 Peer Reviewed By _____

 Date _____

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J04013, 7J04014
Reviewer: 0 <i>R 10/4/18</i>	Dataset ID(s): THg26002-171003-1
Date: 10/4/2017	WO (s) #: Various
Batch #(s): F710187, F709485	0

Analyst Initials BC Reviewer Initials R 10/4/18

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: <u>Samples off curve, Dup failed</u> | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | | | | |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J04013, 7J04014
Reviewer: 0 <i>R 10/4/17</i>	Dataset ID(s): THg26002-171003-1
Date: 10/4/2017	WO (s) #: Various
Batch #(s): F710187, F709485	0

Analyst Initials BC **Reviewer Initials** R 10/4/17

20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? YES NO
- Comments: _____
21. Are all samples within instrument calibration range? (or at minimum dilution size) PASS FAIL
- Comments: _____
22. Are the samples run at the correct dilution level for the method? YES NO
- Comments: _____
23. Dissolved < Total (if applicable) YES NO N/A
- Comments: _____
24. Effluent < Influent (visually confirm if needed) YES NO N/A
- Comments: _____
25. Are re-runs noted with reason? YES NO N/A
- Comments: _____
26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? YES NO N/A
- Comments: _____
27. Is the B trap <5% A Traps YES NO N/A
- Comments: _____
28. Are spiked trap recoveries 75-125% of true value? YES NO N/A
- Comments: 1709699-01, -02
29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
- Comments: _____
30. Have re-extracts been created for non-reportable samples? YES NO N/A
31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. YES NO N/A
32. Does the data set need scanning? YES NO N/A
33. Does the dataset have an LOQ/LOQ or DOC? YES NO N/A
34. Water samples: has the preservation log been included in dataset for final volume verification? YES NO N/A
35. Water samples-is the final volume correct in the sequence? YES NO N/A
- Files located at:** \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs
36. Date of analyst IDOC/CDOC: _____ 1/27/17, 1/11/17 _____ IDOC/CDOC within last 12 months? YES NO
37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? YES NO
38. Date of LOD: _____ 7/28/2017 _____ LOD within last 3 months? YES NO
39. Date of LOQ: _____ 7/28/2017 _____ LOQ within last 3 months? YES NO

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709492

PO#

C012505850

November 14, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709492

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November 14, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SVE-01_17LT011_091317_LOB_01_TA	1709492-01	Tissue	13-Sep-17 11:26	19-Sep-17 09:35
SVE-01_17LT011_091317_LOB_02_TA	1709492-02	Tissue	13-Sep-17 11:26	19-Sep-17 09:35
SVE-01_17LT011_091317_LOB_03_TA	1709492-03	Tissue	13-Sep-17 11:26	19-Sep-17 09:35
SVE-01_17LT011_091317_LOB_04_TA	1709492-04	Tissue	13-Sep-17 11:26	19-Sep-17 09:35
SVE-01_17LT011_091317_LOB_05_TA	1709492-05	Tissue	13-Sep-17 11:26	19-Sep-17 09:35
SVE-01_17LT011_091317_LOB_06_TA	1709492-06	Tissue	13-Sep-17 11:26	19-Sep-17 09:35
SVE-01_17LT011_091317_LOB_07_TA	1709492-07	Tissue	13-Sep-17 11:26	19-Sep-17 09:35
SVE-01_17LT011_091317_LOB_08_TA	1709492-08	Tissue	13-Sep-17 11:26	19-Sep-17 09:35
SVE-01_17LT012_091317_LOB_09_TA	1709492-09	Tissue	13-Sep-17 11:42	19-Sep-17 09:35
SVE-01_17LT012_091317_LOB_10_TA	1709492-10	Tissue	13-Sep-17 11:42	19-Sep-17 09:35
SVE-01_17LT012_091317_LOB_11_TA	1709492-11	Tissue	13-Sep-17 11:42	19-Sep-17 09:35
SVE-01_17LT013_091317_LOB_12_TA	1709492-12	Tissue	13-Sep-17 11:50	19-Sep-17 09:35
SVE-01_17LT013_091317_LOB_13_TA	1709492-13	Tissue	13-Sep-17 11:50	19-Sep-17 09:35
SVE-01_17LT013_091317_LOB_14_TA	1709492-14	Tissue	13-Sep-17 11:50	19-Sep-17 09:35
SVE-01_17LT013_091317_LOB_15_TA	1709492-15	Tissue	13-Sep-17 11:50	19-Sep-17 09:35
SVE-01_17LT013_091317_LOB_16_TA	1709492-16	Tissue	13-Sep-17 11:50	19-Sep-17 09:35
SVE-01_17LT014_091317_LOB_17_TA	1709492-17	Tissue	13-Sep-17 12:01	19-Sep-17 09:35
SVE-01_17LT014_091317_LOB_18_TA	1709492-18	Tissue	13-Sep-17 12:01	19-Sep-17 09:35
SVE-01_17LT014_091317_LOB_19_TA	1709492-19	Tissue	13-Sep-17 12:01	19-Sep-17 09:35
SVE-01_17LT043_091517_LOB_20_TA	1709492-20	Tissue	15-Sep-17 11:41	19-Sep-17 09:35

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AMEC Foster Wheeler
271 Mill Road
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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:10

REVISED REPORT (11/14/17)

Report was revised as the narrative in the original report did not include a comment that the % lipids requested on the sample submittal form were cancelled by the client. This has been updated in this revised report.

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/19/2017 9:35:00 AM . The samples were received intact, on-ice within nine sealed coolers at -12.7, -24.7, -15.2, -16.8, -12.1, -20.0, -17.3, -16.4, and -30.2 degrees Celsius.

Client requested Lipids Analysis by NOAA1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

The samples were processed following the work instructions provided by the client; EFSR-P-SP-WI11646. All of the samples were defrosted and the tails were then removed from the lobster. The shell was removed, and the meat was weighed, de-veined, and then homogenized before sample prep.

Total solids analysis was performed in accordance with method SM2540B.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B.

The samples were prepped in batch F710240 for % moisture and batch F709440 for total solids. The tail mass was measured in batch F709423.

The samples were prepped in batch F709412 and analyzed in sequence 7I29015 for total Mercury.

Per client request samples 1709492-01 and 1709492-11 were used as the source QC in these batches F710240, F709440, and F709412.

ANALYTICAL AND QUALITY CONTROL ISSUES

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
14-Nov-17 15:10

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Eurofins Frontier Global Sciences, Inc.



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Amy Goodall, Project Manager

Sample Receipt Checklist

Client: AMEC Foster Wheeler

Date & Time Received: 9/19/17 9:35

Date Labeled: 9/20/17 Labeled By: LM

Project: _____

Received By: LM

Label Verified By: JCA

of Coolers Received: 9 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y N Temp Blank Used: Y N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>Y</u>	

LA 9/19/17

TID: <u>170404186</u>	CF: <u>70.1 °C</u>	Date/time: <u>9/19/17 9:40</u>	By: <u>LM</u>
Cooler 1: <u>-12.80 °C</u>	<u>CF: -12.70 °C</u>	Cooler 4: <u>-16.86 °C</u>	w/ CF: <u>-16.76 °C</u>
Cooler 2: <u>-24.80 °C</u>	w/ CF: <u>24.70 °C</u>	Cooler 5: <u>-12.20 °C</u>	w/ CF: <u>-12.10 °C</u>
Cooler 3: <u>-15.31 °C</u>	w/ CF: <u>-15.21 °C</u>	Cooler 6: <u>-20.10 °C</u>	w/ CF: <u>-20.00 °C</u>

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>N/A</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>N</u>	

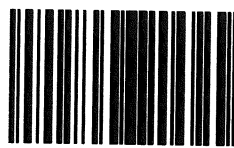
Cooler 7: -17.43 w/CF: -17.33 8: -16.49 w/CF: -16.39 9: -30.28 /CF: -30.16

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>N/A</u>	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4802 2: 7877 6903 7261
 3: 7877 6903 7272 4: 7877 6903 7283
 5: 7877 6903 7294 6: 7877 6903 7309
 7: 7877 6903 7310 8: 7877 6903 7320
 9: 7877 6903 7331

1709492



1709492

Environmental Analysis Request/Chain of Custody



Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101		Matrix		Analyses Requested												For Lab Use Only	
Project Name#: USDC Penobscot		PN #: 3616166052.04A.055		Preservation Codes												SF #: _____	
Project Manager: Rod Pendleton		P.O. #: C012505850														SCR #: _____	
Sampler: JB		PWSID #:														Preservation Codes	
Phone #:		Quote #:														H = HCl T = Thiosulfate	
State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														N = HNO ₃ B = NaOH	
																S = H ₂ SO ₄ P = H ₃ PO ₄	
																O = Other	
																Remarks	
Sample Identification		Collection														use volume for MS / MSD	
	Date	Time	Grab	Composite	Soil	Sediment	Tissue	Potable	Ground	Surface	Water	NPDES	Other:	Total # of Containers	Hg 1631er/Lipid 1981r Zipbag Freeze		
1	SVE-01_17LT011_091317_LOB_01_TA	091317	11:26	X				X			X			1	X		
2	SVE-01_17LT011_091317_LOB_02_TA	091317	11:26	X				X			X			1	X		
3	SVE-01_17LT011_091317_LOB_03_TA	091317	11:26	X				X			X			1	X		
4	SVE-01_17LT011_091317_LOB_04_TA	091317	11:26	X				X			X			1	X		
5	SVE-01_17LT011_091317_LOB_05_TA	091317	11:26	X				X			X			1	X		
6	SVE-01_17LT011_091317_LOB_06_TA	091317	11:26	X				X			X			1	X		
7	SVE-01_17LT011_091317_LOB_07_TA	091317	11:26	X				X			X			1	X		
8	SVE-01_17LT011_091317_LOB_08_TA	091317	11:26	X				X			X			1	X		
9	SVE-01_17LT012_091317_LOB_09_TA	091317	11:42	X				X			X			1	X		
10	SVE-01_17LT012_091317_LOB_10_TA	091317	11:42	X				X			X			1	X		
11	SVE-01_17LT012_091317_LOB_11_TA	091317	11:42	X				X			X			1	X		
12	SVE-01_17LT013_091317_LOB_12_TA	091317	11:50	X				X			X			1	X		
13	SVE-01_17LT013_091317_LOB_13_TA	091317	11:50	X				X			X			1	X		
14	SVE-01_17LT013_091317_LOB_14_TA	091317	11:50	X				X			X			1	X		
15	SVE-01_17LT013_091317_LOB_15_TA	091317	11:50	X				X			X			1	X		
16	SVE-01_17LT013_091317_LOB_16_TA	091317	11:50	X				X			X			1	X		
17	SVE-01_17LT014_091317_LOB_17_TA	091317	12:01	X				X			X			1	X		
18	SVE-01_17LT014_091317_LOB_18_TA	091317	12:01	X				X			X			1	X		
19	SVE-01_17LT014_091317_LOB_19_TA	091317	12:01	X				X			X			1	X		
20	SVE-01_17LT043_091517_LOB_20_TA	091517	11:41	X				X			X			1	X		
Turnaround Time Requested (TAT) (please check):		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Relinquished by: <i>[Signature]</i>		Date	Time	Received by: <i>[Signature]</i>		Date	Time						
(Rush TAT is subject to laboratory approval and surcharges.)						9/18/2017	1630			9/18/17	9:35						
Notes:				Relinquished by:		Date	Time	Received by: <i>Leo Mitter</i>		Date	Time						
				Relinquished by:		Date	Time	Received by: <i>[Signature]</i>		Date	Time						
				Relinquished by:		Date	Time	Received by:		Date	Time						
Data Package Options (please check if required)		High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		Relinquished by Commercial Carrier:				Temperature upon receipt: <i>-12.70</i> °C									
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		If yes, format: _____		UPS _____ FedEx _____ Other _____													

Seal: *[Signature]*



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:10

SVE-01_17LT011_091317_LOB_01_TA
1709492-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1660	9.43	84.2	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	303	1.72	15.3	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.8	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.2	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	134	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:10

SVE-01_17LT011_091317_LOB_02_TA
1709492-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1270	7.84	70.0	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	290	1.79	16.0	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	77.2	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	22.8	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	144	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:10

SVE-01_17LT011_091317_LOB_03_TA
1709492-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	2190	8.42	75.2	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	397	1.52	13.6	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.9	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.1	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	113	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

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Project Manager: Denise King

Reported:
14-Nov-17 15:10

SVE-01_17LT011_091317_LOB_04_TA
1709492-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	940	7.58	67.7	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	191	1.54	13.7	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	79.7	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	20.3	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	72.5	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
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Project Manager: Denise King

Reported:
14-Nov-17 15:10

SVE-01_17LT011_091317_LOB_05_TA
1709492-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	999	8.78	78.4	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	180	1.58	14.1	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.0	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.0	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	109	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:10

SVE-01_17LT011_091317_LOB_06_TA
1709492-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1340	8.92	79.6	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	244	1.63	14.6	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.7	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.3	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	136	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	



AMEC Foster Wheeler
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Reported:
14-Nov-17 15:10

SVE-01_17LT011_091317_LOB_07_TA
1709492-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1950	9.06	80.9	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	343	1.59	14.2	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.4	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.6	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	156	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	

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271 Mill Road
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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:10

SVE-01_17LT011_091317_LOB_08_TA
1709492-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	2360	7.61	67.9	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	468	1.51	13.4	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.2	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.8	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	169	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	

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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:10

SVE-01_17LT012_091317_LOB_09_TA
1709492-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	2010	7.85	70.1	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	433	1.69	15.1	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	78.5	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	21.5	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	156	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	

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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:10

SVE-01_17LT012_091317_LOB_10_TA
1709492-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	766	7.65	68.3	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	165	1.65	14.8	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	78.4	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	21.6	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	80.9	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	



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Reported:
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SVE-01_17LT012_091317_LOB_11_TA
1709492-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	841	7.82	69.8	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	167	1.56	13.9	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.1	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.9	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	84.3	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	



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Project Manager: Denise King

Reported:
14-Nov-17 15:10

SVE-01_17LT013_091317_LOB_12_TA
1709492-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1510	8.59	76.7	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	279	1.59	14.2	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.5	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.5	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	134	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	

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14-Nov-17 15:10

SVE-01_17LT013_091317_LOB_13_TA
1709492-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1620	9.92	88.5	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	291	1.78	15.9	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.0	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.0	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	146	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	

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Reported:
14-Nov-17 15:10

SVE-01_17LT013_091317_LOB_14_TA
1709492-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	2730	9.10	81.2	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	533	1.77	15.8	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.5	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.5	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	152	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	



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Reported:
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SVE-01_17LT013_091317_LOB_15_TA
1709492-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1500	8.71	77.8	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	290	1.69	15.1	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.6	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.4	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	129	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	

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SVE-01_17LT013_091317_LOB_16_TA
1709492-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	2770	8.39	74.9	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	526	1.59	14.2	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.0	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.0	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	194	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	

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Project Manager: Denise King

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SVE-01_17LT014_091317_LOB_17_TA
1709492-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	3280	10.1	89.8	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	574	1.76	15.7	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.5	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.5	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	234	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	

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Project Manager: Denise King

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SVE-01_17LT014_091317_LOB_18_TA
1709492-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	2060	8.36	74.7	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	390	1.58	14.1	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.1	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.9	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	183	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	

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SVE-01_17LT014_091317_LOB_19_TA
1709492-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1390	8.76	78.2	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	260	1.64	14.6	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.3	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.7	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	112	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	



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SVE-01_17LT043_091517_LOB_20_TA
1709492-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	888	8.71	77.8	ng/g dry	400	[CALC]	26-Sep-17		28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	168	1.65	14.7	ng/g	400	F709412	26-Sep-17	7129015	28-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.1	0.1	0.1	% by Weight	1	F710240	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.9	0.1	0.1	% by Weight	1	F709440	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	115	0.10	0.10	g	1	F709423	25-Sep-17		25-Sep-17	None	

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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:10

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7I29015 - F709412											
Cal Standard (7I29015-CAL1)					Prepared & Analyzed: 28-Sep-17						
Mercury	0.498	-		ng/L	0.50100		99.4				
Cal Standard (7I29015-CAL2)					Prepared & Analyzed: 28-Sep-17						
Mercury	1.034	-		ng/L	1.0020		103				
Cal Standard (7I29015-CAL3)					Prepared & Analyzed: 28-Sep-17						
Mercury	4.949	-		ng/L	5.0100		98.8				
Cal Standard (7I29015-CAL4)					Prepared & Analyzed: 28-Sep-17						
Mercury	19.89	-		ng/L	20.040		99.3				
Cal Standard (7I29015-CAL5)					Prepared & Analyzed: 28-Sep-17						
Mercury	39.44	-		ng/L	40.080		98.4				
Calibration Blank (7I29015-CCB1)					Prepared & Analyzed: 28-Sep-17						
Mercury	0.033	-		ng/L							
Calibration Blank (7I29015-CCB2)					Prepared & Analyzed: 28-Sep-17						
Mercury	0.0001	-		ng/L							
Calibration Blank (7I29015-CCB3)					Prepared & Analyzed: 28-Sep-17						
Mercury	0.065	-		ng/L							
Calibration Blank (7I29015-CCB4)					Prepared & Analyzed: 28-Sep-17						
Mercury	0.073	-		ng/L							
Calibration Blank (7I29015-CCB5)					Prepared & Analyzed: 28-Sep-17						
Mercury	0.045	-		ng/L							

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7I29015 - F709412

Calibration Blank (7I29015-CCB6)												Prepared & Analyzed: 28-Sep-17											
Mercury	0.067	-		ng/L																			
Calibration Check (7I29015-CCV1)												Prepared & Analyzed: 28-Sep-17											
Mercury	4.955	-		ng/L	5.0000		99.1	77-123															
Calibration Check (7I29015-CCV2)												Prepared & Analyzed: 28-Sep-17											
Mercury	5.051	-		ng/L	5.0000		101	77-123															
Calibration Check (7I29015-CCV3)												Prepared & Analyzed: 28-Sep-17											
Mercury	5.124	-		ng/L	5.0000		102	77-123															
Calibration Check (7I29015-CCV4)												Prepared & Analyzed: 28-Sep-17											
Mercury	5.155	-		ng/L	5.0000		103	77-123															
Calibration Check (7I29015-CCV5)												Prepared & Analyzed: 28-Sep-17											
Mercury	5.240	-		ng/L	5.0000		105	77-123															
Calibration Check (7I29015-CCV6)												Prepared & Analyzed: 28-Sep-17											
Mercury	5.294	-		ng/L	5.0000		106	77-123															
Instrument Blank (7I29015-IBL1)												Prepared & Analyzed: 28-Sep-17											
Mercury	ND	0.004	0.040	ng/L							U												
Instrument Blank (7I29015-IBL2)												Prepared & Analyzed: 28-Sep-17											
Mercury	ND	0.004	0.040	ng/L							U												
Instrument Blank (7I29015-IBL3)												Prepared & Analyzed: 28-Sep-17											
Mercury	ND	0.004	0.040	ng/L							U												

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:10

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7I29015 - F709412

Initial Cal Check (7I29015-ICV1)

Prepared & Analyzed: 28-Sep-17

Mercury	4.924	-		ng/L	5.0000		98.5	79-121			
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Batch F709412 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F709412-BLK1)

Prepared: 26-Sep-17 Analyzed: 28-Sep-17

Mercury	ND	0.090	0.800	ng/g							U
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Blank (F709412-BLK2)

Prepared: 26-Sep-17 Analyzed: 28-Sep-17

Mercury	ND	0.090	0.800	ng/g							U
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Blank (F709412-BLK3)

Prepared: 26-Sep-17 Analyzed: 28-Sep-17

Mercury	ND	0.090	0.800	ng/g							U
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Blank (F709412-BLK4)

Prepared: 26-Sep-17 Analyzed: 28-Sep-17

Mercury	ND	0.083	0.745	ng/g							U
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Blank (F709412-BLK5)

Prepared: 26-Sep-17 Analyzed: 28-Sep-17

Mercury	ND	0.089	0.795	ng/g							U
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LCS (F709412-BS1)

Prepared: 26-Sep-17 Analyzed: 28-Sep-17

Mercury	7.948	0.090	0.800	ng/g	8.0160		99.2	75-125			
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LCS (F709412-BS2)

Prepared: 26-Sep-17 Analyzed: 28-Sep-17

Mercury	341.7	3.56	31.7	ng/g	382.50		89.3	75-125			
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LCS Dup (F709412-BSD1)

Prepared: 26-Sep-17 Analyzed: 28-Sep-17

Mercury	8.033	0.090	0.800	ng/g	8.0160		100	75-125	1.06	24	
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The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 14-Nov-17 15:10
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F709412 - EFGS-011 Nitric/Sulfuric Hg Digestion

Duplicate (F709412-DUP1)		Source: 1709492-01		Prepared: 26-Sep-17 Analyzed: 28-Sep-17							
Mercury	295.2	1.69	15.1	ng/g		303.0			2.60	24	
Matrix Spike (F709412-MS1)		Source: 1709492-01		Prepared: 26-Sep-17 Analyzed: 28-Sep-17							
Mercury	626.2	1.58	14.1	ng/g	352.11	303.0	91.8	71-125			
Matrix Spike (F709412-MS2)		Source: 1709492-11		Prepared: 26-Sep-17 Analyzed: 28-Sep-17							
Mercury	491.5	1.53	13.7	ng/g	341.30	167.4	95.0	71-125			
Matrix Spike Dup (F709412-MSD1)		Source: 1709492-01		Prepared: 26-Sep-17 Analyzed: 28-Sep-17							
Mercury	631.6	1.68	15.0	ng/g	375.94	303.0	87.4	71-125	4.90	24	
Matrix Spike Dup (F709412-MSD2)		Source: 1709492-11		Prepared: 26-Sep-17 Analyzed: 28-Sep-17							
Mercury	496.8	1.54	13.7	ng/g	343.05	167.4	96.0	71-125	1.09	24	



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 14-Nov-17 15:10
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F709440 - EFGS-019 Solids Analysis

Duplicate (F709440-DUP1)		Source: 1709492-01			Prepared: 26-Sep-17 Analyzed: 27-Sep-17						
% Solids	18.7	0.1	0.1	% by Weight		18.2			2.71	25	O-04
Duplicate (F709440-DUP2)		Source: 1709492-11			Prepared: 26-Sep-17 Analyzed: 27-Sep-17						
% Solids	19.5	0.1	0.1	% by Weight		19.9			2.03	25	O-04

Batch F710240 - EFGS-019 Solids Analysis

Duplicate (F710240-DUP1)		Source: 1709492-01			Prepared & Analyzed: 05-Oct-17						
% Moisture	81.3	0.1	0.1	% by Weight		81.8			0.613	10	O-04
Duplicate (F710240-DUP2)		Source: 1709492-11			Prepared & Analyzed: 05-Oct-17						
% Moisture	80.5	0.1	0.1	% by Weight		80.1			0.498	10	O-04

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The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:10

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- O-04 This sample was analyzed outside of the recommended holding time.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

Total Solids Dataset Cover Page

Dataset ID: TS170926-3
Batch ID: F709440/F710240
Work Order(s): 1709492

Analyst: AMB/CLC
Prep. Date: 9/26/2017

Analytical Issues/Explanations:

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: a 10/5/17

Preparation Date: Sep 26, 2017

Batch #: 3

Analyst: AMB/CLC

Batch ID: F709440/F710240

Work Order(s): 1709492

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes	% Moisture
1	1709492-01	1.0140	6.8300	5.8160	2.0710	1.0570	18.2%		81.8%
2	1709492-01MD	1.0370	6.5910	5.5540	2.0740	1.0370	18.7%	2.7%	81.3%
3	1709492-02	1.0390	6.3270	5.2880	2.2470	1.2080	22.8%		77.2%
4	1709492-03	1.0540	6.1350	5.0810	1.9730	0.9190	18.1%		81.9%
5	1709492-04	1.0480	6.8120	5.7640	2.2160	1.1680	20.3%		79.7%
6	1709492-05	1.0230	6.2650	5.2420	1.9650	0.9420	18.0%		82.0%
7	1709492-06	0.9830	6.6740	5.6910	2.0260	1.0430	18.3%		81.7%
8	1709492-07	0.9870	6.7660	5.7790	2.0050	1.0180	17.6%		82.4%
9	1709492-08	0.9990	6.3740	5.3750	2.0630	1.0640	19.8%		80.2%
10	1709492-09	1.0350	6.8530	5.8180	2.2870	1.2520	21.5%		78.5%
11	1709492-10	1.0440	6.8590	5.8150	2.3020	1.2580	21.6%		78.4%
12	1709492-11	1.0180	6.4690	5.4510	2.1050	1.0870	19.9%		80.1%
13	1709492-11MD	1.0130	6.3860	5.3730	2.0620	1.0490	19.5%	2.1%	80.5%
14	1709492-12	0.9910	6.7770	5.7860	2.0640	1.0730	18.5%		81.5%
15	1709492-13	1.0140	6.4060	5.3920	1.9870	0.9730	18.0%		82.0%
16	1709492-14	0.9850	6.7420	5.7570	2.1080	1.1230	19.5%		80.5%
17	1709492-15	0.9920	6.4810	5.4890	2.0580	1.0660	19.4%		80.6%
18	1709492-16	1.0230	6.7910	5.7680	2.1170	1.0940	19.0%		81.0%
19	1709492-17	0.9970	6.7050	5.7080	1.9970	1.0000	17.5%		82.5%
20	1709492-18	1.0110	6.7450	5.7340	2.0970	1.0860	18.9%		81.1%
21	1709492-19	1.0380	6.4000	5.3620	2.0410	1.0030	18.7%		81.3%
22	1709492-20	1.0200	6.3780	5.3580	2.0310	1.0110	18.9%		81.1%

PREPARATION BENCH SHEET

F710240

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	μ l Spike1	Spike2 ID	μ l Spike2	Extraction Comments
F710240-DUP1	Duplicate [1709492-01]	5	5					
F710240-DUP2	Duplicate [1709492-11]	5	5					

Standard ID(s):

Description:

Expiration:

PREPARATION BENCH SHEET

F710240

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709492-01	SVE-01_17LT011_091317_LOB_01_TA	5	5	QC	-	-	MD/MS/MSD	
1709492-02	SVE-01_17LT011_091317_LOB_02_TA	5	5	-	-	-		
1709492-03	SVE-01_17LT011_091317_LOB_03_TA	5	5	-	-	-		
1709492-04	SVE-01_17LT011_091317_LOB_04_TA	5	5	-	-	-		
1709492-05	SVE-01_17LT011_091317_LOB_05_TA	5	5	-	-	-		
1709492-06	SVE-01_17LT011_091317_LOB_06_TA	5	5	-	-	-		
1709492-07	SVE-01_17LT011_091317_LOB_07_TA	5	5	-	-	-		
1709492-08	SVE-01_17LT011_091317_LOB_08_TA	5	5	-	-	-		
1709492-09	SVE-01_17LT012_091317_LOB_09_TA	5	5	-	-	-		
1709492-10	SVE-01_17LT012_091317_LOB_10_TA	5	5	-	-	-		
1709492-11	SVE-01_17LT012_091317_LOB_11_TA	5	5	QC	-	-	MS/MSD	
1709492-12	SVE-01_17LT013_091317_LOB_12_TA	5	5	-	-	-		
1709492-13	SVE-01_17LT013_091317_LOB_13_TA	5	5	-	-	-		
1709492-14	SVE-01_17LT013_091317_LOB_14_TA	5	5	-	-	-		
1709492-15	SVE-01_17LT013_091317_LOB_15_TA	5	5	-	-	-		
1709492-16	SVE-01_17LT013_091317_LOB_16_TA	5	5	-	-	-		
1709492-17	SVE-01_17LT014_091317_LOB_17_TA	5	5	-	-	-		
1709492-18	SVE-01_17LT014_091317_LOB_18_TA	5	5	-	-	-		
1709492-19	SVE-01_17LT014_091317_LOB_19_TA	5	5	-	-	-		

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F710240

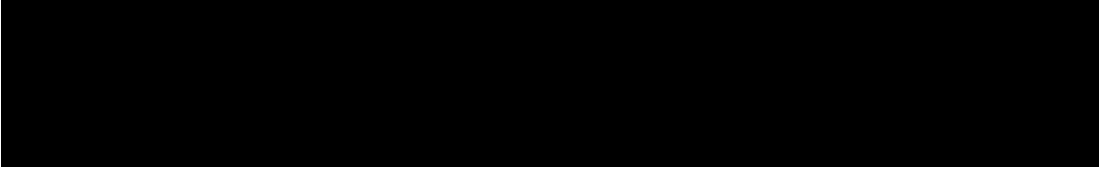
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

1709492-20	SVE-01_17LT043_091517_LOB_20_TA	5	5	-	-	-		
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Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: CF

Date: 9/29/17

Reviewer: DM

Date: 9/27/17

WO #: 1709492

Batch #: F 709423

Dataset ID: F709423

Reviewer Initials: DM

General Comments/Re-run requirements:

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquide

Initials	SOP Date	
<u>CF</u>	<u>5/9/17</u>	<input checked="" type="checkbox"/>
		<input checked="" type="checkbox"/>

Reviewer Initials: DM

1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

Density Only - NA this section

<input checked="" type="checkbox"/> DONE		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO N/A	<input type="checkbox"/>
<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL N/A	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO N/A	<input type="checkbox"/>
		<input type="checkbox"/> N/A

2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
 - (v) Volume (if other than 1 mL): _____ Can the calculated result be reproduced?

Total Solids Only - NA this section

<input type="checkbox"/> DONE		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
		<input type="checkbox"/> N/A

QUALITY ASSURANCE
PEER-REVIEWED
INITIALS: DM 9/27/17

PREPARATION BENCH SHEET

F709423

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - No Preparation

Prepared: 9/25/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709492-01	SVE-01_17LT011_091317_LOB_01_TA	1	1	QC	-	-	MD/MS/MSD Total Mass of Lobster Ta	
1709492-02	SVE-01_17LT011_091317_LOB_02_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-03	SVE-01_17LT011_091317_LOB_03_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-04	SVE-01_17LT011_091317_LOB_04_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-05	SVE-01_17LT011_091317_LOB_05_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-06	SVE-01_17LT011_091317_LOB_06_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-07	SVE-01_17LT011_091317_LOB_07_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-08	SVE-01_17LT011_091317_LOB_08_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-09	SVE-01_17LT012_091317_LOB_09_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-10	SVE-01_17LT012_091317_LOB_10_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-11	SVE-01_17LT012_091317_LOB_11_TA	1	1	QC	-	-	MS/MSD Total Mass of Lobster Tail M	
1709492-12	SVE-01_17LT013_091317_LOB_12_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-13	SVE-01_17LT013_091317_LOB_13_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-14	SVE-01_17LT013_091317_LOB_14_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-15	SVE-01_17LT013_091317_LOB_15_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-16	SVE-01_17LT013_091317_LOB_16_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-17	SVE-01_17LT014_091317_LOB_17_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-18	SVE-01_17LT014_091317_LOB_18_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709492-19	SVE-01_17LT014_091317_LOB_19_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	

PREPARATION BENCH SHEET

F709423

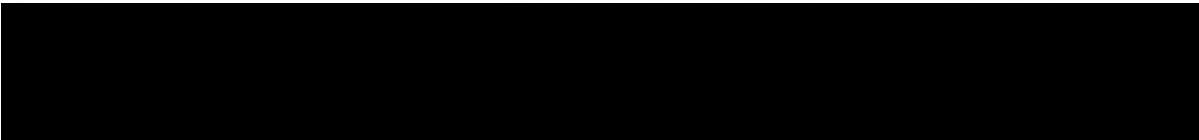
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - No Preparation

Prepared: 9/25/2017

1709492-20	SVE-01_17LI043_091517_LOB_20_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
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AmecFW Maine Lobster Special Project 2017- Lobster Homogenization Logbook

Work Order NUMBER	Tech Initials	Date	Thawed Y/ N	Balance ID	Tail Weight (g)	Tail de-veined Y/ N	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	% Lipids Subsample taken Y/N	Comments
1709491-05	DM	9/22/17	Y	18	102.76	Y	2	Y	
1709490-16	DH	9/22/17	Y	18	125.95	Y	2	Y	
1709491-06	DM	9/22/17	Y	2	131.68	Y	2	Y	
1709490-17	DH	9/22/17	Y	18	132.35	Y	2	Y	
1709491-07	DM	9/22/17	Y	18	140.51	Y	2	Y	
1709490-18	DH	9/22/17	Y	18	85.90	Y	2	Y	
1709492-01	DM	9/22/17	Y	18	103.59	Y	2	Y	
1709490-19	DH	9/22/17	Y	18	104.42	Y	2	Y	1709490-19 9/22/17
1709492-02	AMB	9/22/17	Y	2	144.08	Y	2	Y	
1709490-20	DH	9/22/17	Y	2	95.76	Y	2	Y	
1709492-03	AMB	9/22/17	Y	2	113.22	Y	2	Y	
1709492-04	DM	9/22/17	Y	18	72.48	Y	2	Y	
1709491-01	PL	9/22/17	Y	18	124.46	Y	2	Y	
1709492-05	DM	9/22/17	Y	18	108.55	Y	2	Y	
1709491-02	PL	9/22/17	Y	18	153.83	Y	2	Y	
1709492-06	DM	9/22/17	Y	18	195.68	Y	2	Y	
1709491-03	PL	9/22/17	Y	18	102.57	Y	2	Y	
1709492-07	DM	9/22/17	Y	18	156.22	Y	2	Y	

AmecFW Maine Lobster Special Project 2017- Lobster Homogenization Logbook

Work Order NUMBER	Tech Initials	Date	Thawed Y/ N	Balance ID	Tail Weight (g)	Tail de-veined Y/ N	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	% Lipids Subsample taken Y/N	Comments
1709492-08	DM	9/22/17	Y	18	169.16	Y	2	Y	
1709492-09	DM	9/22/17	Y	18	155.04	Y	2	Y	
1709492-15	AMB	9/22/17	Y	2	129.00	Y	2	Y	
1709492-10 1709492-10 DM 9/22/17	DM	9/22/17	Y	18	80.86	Y	2	Y	
1709492-16	AMB	9/22/17	Y	2	194.49	Y	2	Y	
1709492-11	DM	9/22/17	Y	18	84.27	Y	2	Y	
1709492-12	DM	9/22/17	Y	18	188.93	Y	2	Y	
1709492-17	AMB	9/22/17	Y	2	233.95	Y	2	Y	
1709492-13	DM	9/22/17	Y	18	146.12	Y	2	Y	
1709492-14	DM	9/22/17	Y	18	152.50	Y	2	Y	
1709492-18	AMB	9/22/17	Y	2	183.2	Y	2	Y	
1709492-19	AMB	9/22/17	Y	18	112.34	Y	2	Y	
1709492-20	AMB	9/22/17	Y	18	114.77	Y	2	Y	1709492-20 AMB 9/22/17
1709493-01	DLH	9/25/17	Y	18	88.96	Y	2	Y	
1709493-02	DLH	9/25/17	Y	18	102.02	Y	2	Y	
1709493-03	DLH	9/25/17	Y	18	100.81	Y	2	Y	
1709493-04	DLH	9/25/17	Y	18	63.88	Y	2	Y	63.66g Tail weight 9/25/17 DLH
1709493-05	DLH	9/25/17	Y	18	54.63	Y	2	Y	

9-22-17 AMB



Frontier Global Sciences

Total Solids Dataset Cover Page

Dataset ID: TS170926-3
Batch ID: F709440
Work Order(s): 1709492

Analyst: AMB/CLC
Prep. Date: 9/26/2017

Analytical Issues/Explanations:

QUALITY ASSURANCE
PEER-REVIEWED
INITIALS: DM 9/28/17

Preparation Date: Sep 26, 2017

Batch #: 3

Analyst: AMB/CLC

Batch ID: F709440

Work Order(s): 1709492

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes
1	1709492-01	1.0140	6.8300	5.8160	2.0710	1.0570	18.2%	
2	1709492-01MD	1.0370	6.5910	5.5540	2.0740	1.0370	18.7%	2.7%
3	1709492-02	1.0390	6.3270	5.2880	2.2470	1.2080	22.8%	
4	1709492-03	1.0540	6.1350	5.0810	1.9730	0.9190	18.1%	
5	1709492-04	1.0480	6.8120	5.7640	2.2160	1.1680	20.3%	
6	1709492-05	1.0230	6.2650	5.2420	1.9650	0.9420	18.0%	
7	1709492-06	0.9830	6.6740	5.6910	2.0260	1.0430	18.3%	
8	1709492-07	0.9870	6.7660	5.7790	2.0050	1.0180	17.6%	
9	1709492-08	0.9990	6.3740	5.3750	2.0630	1.0640	19.8%	
10	1709492-09	1.0350	6.8530	5.8180	2.2870	1.2520	21.5%	
11	1709492-10	1.0440	6.8590	5.8150	2.3020	1.2580	21.6%	
12	1709492-11	1.0180	6.4690	5.4510	2.1050	1.0870	19.9%	
13	1709492-11MD	1.0130	6.3860	5.3730	2.0620	1.0490	19.5%	2.1%
14	1709492-12	0.9910	6.7770	5.7860	2.0640	1.0730	18.5%	
15	1709492-13	1.0140	6.4060	5.3920	1.9870	0.9730	18.0%	
16	1709492-14	0.9850	6.7420	5.7570	2.1080	1.1230	19.5%	
17	1709492-15	0.9920	6.4810	5.4890	2.0580	1.0660	19.4%	
18	1709492-16	1.0230	6.7910	5.7680	2.1170	1.0940	19.0%	
19	1709492-17	0.9970	6.7050	5.7080	1.9970	1.0000	17.5%	
20	1709492-18	1.0110	6.7450	5.7340	2.0970	1.0860	18.9%	
21	1709492-19	1.0380	6.4000	5.3620	2.0410	1.0030	18.7%	
22	1709492-20	1.0200	6.3780	5.3580	2.0310	1.0110	18.9%	

Preparation Date: Sep 26, 2017

Batch #: 3

Analyst: AMB/CLC

Batch ID: F709440

Work Order(s): 1709492

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes
1	1709492-01	1.0140	6.8300	5.8160	2.0710	1.0570	18.2%	
2	1709492-01MD	1.0370	6.5910	5.5540	2.0740	1.0370	18.7%	2.7%
3	1709492-02	1.0390	6.3270	5.2880	2.2470	1.2080	22.8%	
4	1709492-03	1.0540	6.1350	5.0810	1.9730	0.9190	18.1%	
5	1709492-04	1.0480	6.8120	5.7640	2.2160	1.1680	20.3%	
6	1709492-05	1.0230	6.2650	5.2420	1.9650	0.9420	18.0%	
7	1709492-06	0.9830	6.6740	5.6910	2.0260	1.0430	18.3%	
8	1709492-07	0.9870	6.7660	5.7790	2.0050	1.0180	17.6%	
9	1709492-08	0.9990	6.3740	5.3750	2.0630	1.0640	19.8%	
10	1709492-09	1.0350	6.8530	5.8180	2.2870	1.2520	21.5%	
11	1709492-10	1.0440	6.8590	5.8150	2.3020	1.2580	21.6%	
12	1709492-11	1.0180	6.4690	5.4510	2.1050	1.0870	19.9%	
13	1709492-11MD	1.0130	6.3860	5.3730	2.0620	1.0490	19.5%	2.1%
14	1709492-12	0.9910	6.7770	5.7860	2.0640	1.0730	18.5%	
15	1709492-13	1.0140	6.4060	5.3920	1.9870	0.9730	18.0%	
16	1709492-14	0.9850	6.7240	5.7390	2.1080	1.1230	19.6%	
17	1709492-15	0.9920	6.4810	5.4890	2.0580	1.0650	19.4%	
18	1709492-16	1.0230	6.7910	5.7680	2.1170	1.0940	19.0%	
19	1709492-17	0.9970	6.7050	5.7080	1.9970	1.0000	17.5%	
20	1709492-18	1.0110	6.7450	5.7340	2.0970	1.0860	18.9%	
21	1709492-19	1.0380	6.4000	5.3520	2.0410	1.0030	18.7%	
22	1709492-20	1.0200	6.3780	5.3580	2.0310	1.0110	18.9%	

Remote Lab Total Solids Logbook

Lab Technician(s): AMB/cre Batch: F709440 Date: 9-26-17 Page 1 of 1

Thermometer #: 120405136¹ Oven #: OVN-01 Actual temperature: 103.7 (Range 103-105°C)

Balance #¹: 6 Start time: 1920 End time²: 1510^{9:27 AM} Time re-weighed³: 1550

Client(s)/WO#: 1709492

Sample ID	Pan #	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Notes
1709492-01	B1	1.014	6.830	2.071	
F709440-DUP1	B2	1.037	6.591	2.074	Source: 1709492-01
1709492-02	B3	1.039	6.327	2.247	
1709492-03	B4	1.054	6.135	1.973	
1709492-04	B5	1.048	6.812	2.216	
1709492-05	B6	1.023	6.265	1.965	
1709492-06	B7	0.983	6.674	2.026	
1709492-07	B8	0.987	6.766	2.005	
1709492-08	B9	0.999	6.374	2.063	
1709492-09	B10	1.035	6.853	2.287	
1709492-10	B11	1.044	6.859	2.302	
1709492-11	B12	1.018	6.469	2.105	
F709440-DUP2	B13	1.013	6.386	2.062	Source: 1709492-11
1709492-12	B14	0.991	6.777	2.064	
1709492-13	B15	1.014	6.406	1.987	
1709492-14	B16	0.985	6.742	2.108	
1709492-15	B17	0.992	6.481	2.058	
1709492-16	B18	1.023	6.791	2.117	
1709492-17	B19	0.997	6.705	1.997	
1709492-18	B20	1.011	6.745	2.097	
1709492-19	B21	1.038	6.400	2.041	
1709492-20	B22	1.020	6.378	2.031	
AMB 9/26/17					

Comments:

¹The same balance must be used to weight samples before and after overing.
²Samples must be overed over 12 hours.

PREPARATION BENCH SHEET

F709440

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-019 Solids Analysis

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	μ l Spike1	Spike2 ID	μ l Spike2	Extraction Comments
F709440-DUP1	Duplicate [1709492-01]	5	5					
F709440-DUP2	Duplicate [1709492-11]	5	5					

Standard ID(s):

Description:

Expiration:

PREPARATION BENCH SHEET

F709440

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-019 Solids Analysis

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709492-01	SVE-01_17LT011_091317_LOB_01_TA	5	5	QC	-	-	MD/MS/MSD	
1709492-02	SVE-01_17LT011_091317_LOB_02_TA	5	5	-	-	-		
1709492-03	SVE-01_17LT011_091317_LOB_03_TA	5	5	-	-	-		
1709492-04	SVE-01_17LT011_091317_LOB_04_TA	5	5	-	-	-		
1709492-05	SVE-01_17LT011_091317_LOB_05_TA	5	5	-	-	-		
1709492-06	SVE-01_17LT011_091317_LOB_06_TA	5	5	-	-	-		
1709492-07	SVE-01_17LT011_091317_LOB_07_TA	5	5	-	-	-		
1709492-08	SVE-01_17LT011_091317_LOB_08_TA	5	5	-	-	-		
1709492-09	SVE-01_17LT012_091317_LOB_09_TA	5	5	-	-	-		
1709492-10	SVE-01_17LT012_091317_LOB_10_TA	5	5	-	-	-		
1709492-11	SVE-01_17LT012_091317_LOB_11_TA	5	5	QC	-	-	MS/MSD	
1709492-12	SVE-01_17LT013_091317_LOB_12_TA	5	5	-	-	-		
1709492-13	SVE-01_17LT013_091317_LOB_13_TA	5	5	-	-	-		
1709492-14	SVE-01_17LT013_091317_LOB_14_TA	5	5	-	-	-		
1709492-15	SVE-01_17LT013_091317_LOB_15_TA	5	5	-	-	-		
1709492-16	SVE-01_17LT013_091317_LOB_16_TA	5	5	-	-	-		
1709492-17	SVE-01_17LT014_091317_LOB_17_TA	5	5	-	-	-		
1709492-18	SVE-01_17LT014_091317_LOB_18_TA	5	5	-	-	-		
1709492-19	SVE-01_17LT014_091317_LOB_19_TA	5	5	-	-	-		

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709440

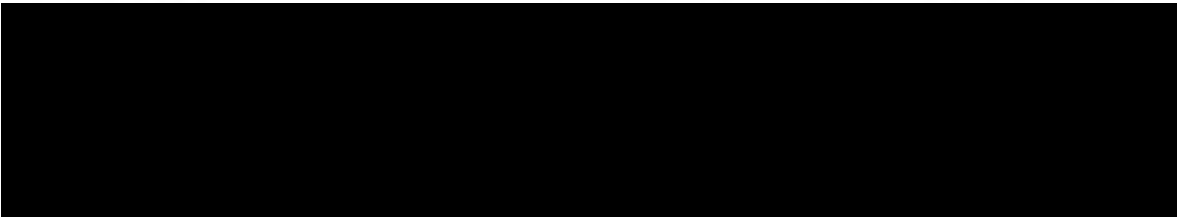
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-019 Solids Analysis

Prepared: 9/26/2017

1709492-20	SVE-01_17LT043_091517_LOB_20_TA	5	5	-	-	-		
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Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: CLC/AMB

Date: 9/27/17

Reviewer: DM

Date: 9/28/17

WO #: 1709492

Batch #: F709440

Dataset ID: TS170926-3

Reviewer Initials: DM

General Comments/Re-run requirements:

[Empty box for general comments]

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date
<u>CLC</u>	<u>2/10/16</u>
	<u>2/11/17</u>

Reviewer Initials: DM

1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

Density Only - NA this section			
<input checked="" type="checkbox"/>	DONE		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	PASS	<input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>

2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
 - (v) Volume (if other than 1 mL): _____ Can the calculated result be reproduced?

Total Solids Only - NA this section			
<input type="checkbox"/>	DONE		<input type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/>	YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input type="checkbox"/>



Frontier Global Sciences

THg26003-170928-1

Analysis Datasheet for Total Mercury

Date of Analysis: September 28, 2017

Analyst: BC

Instrument #: Hg2600-3

Units: ng/L

LIMS Sequence #: 7129014, 7129015, 7129016

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	52.12 units	104.24	46.42 units	92.84	99.6 %Rec
SEQ-CAL2	1	1.00 ng/L	102.07 units	102.07	96.37 units	95.37	103.4 %Rec
SEQ-CAL3	1	5.00 ng/L	467.10 units	93.42	461.40 units	97.28	99.0 %Rec
SEQ-CAL4	1	20.00 ng/L	1860.45 units	93.02	1854.75 units	92.74	99.5 %Rec
SEQ-CAL5	1	40.00 ng/L	3682.57 units	92.06	3676.87 units	91.92	98.6 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St. Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 93.23 +/- 1.79 1.9% RSD 96.96

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	5.70 units	±0.89	0.05 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	1	0.914 ng/L	
BLK	2	3	0.440 ng/L	±0.264
BLK	3	3	0.031 ng/L	±0.047
BLK	4	1	-0.022 ng/L	
BLK	5	1	0.029 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER-REVIEWED

INITIALS: BC 9/29/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	CAL	SEQ-IBL1	1	9/28/2017 8:45:47	76409-1.RAW	8:45:47 AM	6.72			1.0	0.011	0.011	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	9/28/2017 8:49:55	76470-1.RAW	8:49:56 AM	5.13			-0.6	-0.096	-0.096	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	9/28/2017 8:51:04	76471-1.RAW	8:51:04 AM	5.25			-0.5	-0.005	-0.005	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	9/28/2017 8:58:12	76472-1.RAW	8:58:12 AM	52.12			48.4	0.498	0.498	ng/L	
Hg2600-3	BC	CAL	SEQ-CAI 2	1	9/28/2017 9:02:21	76473-1.RAW	9:02:21 AM	102.07			96.4	1.034	1.034	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	9/28/2017 9:06:29	76474-1.RAW	9:06:29 AM	467.10			451.4	4.949	4.949	ng/L	
Hg2600-3	BC	CAL	SEQ-CAI 4	1	9/28/2017 9:10:38	76475-1.RAW	9:10:38 AM	1860.45			1854.8	19.894	19.894	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	9/28/2017 9:14:46	76476-1.RAW	9:14:46 AM	3682.57			3676.9	39.439	39.439	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	9/28/2017 9:18:59	76477-1.RAW	9:18:55 AM	461.78			459.0	4.924	4.924	ng/L	
Hg2600-3	BC	BLK	F709453-BLK1	10	9/28/2017 9:28:38	76478-1.RAW	9:28:38 AM	14.22	1		8.5	0.091	0.914	ng/L	
Hg2600-3	BC	SAM	F709453-BS1	10	9/28/2017 9:32:47	76479-1.RAW	9:32:47 AM	1875.75	1		1870.0	19.967	199.669	ng/L	
Hg2600-3	BC	SAM	F709453-BSD1	10	9/28/2017 9:38:56	76480-1.RAW	9:38:55 AM	1544.76	1		1939.1	20.707	207.073	ng/L	
Hg2600-3	BC	SAM	1709552-01	50	9/28/2017 9:41:04	76481-1.RAW	9:41:04 AM	51.45	1		48.8	0.505	25.231	ng/L	
Hg2600-3	BC	SAM	1709552-02	50	9/28/2017 9:45:12	76482-1.RAW	9:45:12 AM	59.33	1		53.6	0.557	27.848	ng/L	
Hg2600-3	BC	SAM	1709583-01	50	9/28/2017 9:49:21	76483-1.RAW	9:49:21 AM	952.28	1		946.6	10.135	506.745	ng/L	
Hg2600-3	BC	SAM	1709583-02	50	9/28/2017 9:53:29	76484-1.RAW	9:53:29 AM	768.06	1		782.4	8.373	418.673	ng/L	
Hg2600-3	BC	SAM	1709583-03	50	9/28/2017 9:57:36	76485-1.RAW	9:57:38 AM	719.97	1		711.3	7.643	382.156	ng/L	
Hg2600-3	BC	SAM	1709610-15	50	9/28/2017 10:01:46	76486-1.RAW	10:01:46 AM	1956.45	1		1950.8	20.906	1045.312	ng/L	
Hg2600-3	BC	SAM	1709610-16	50	9/28/2017 10:05:54	76487-1.RAW	10:05:54 AM	1773.01	1		1767.3	18.938	946.910	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	9/28/2017 10:10:03	76488-1.RAW	10:10:03 AM	467.69			462.0	4.955	4.955	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	9/28/2017 10:14:11	76489-1.RAW	10:14:11 AM	8.78			3.1	0.033	0.033	ng/L	
Hg2600-3	BC	SAM	1709610-17	50	9/28/2017 10:24:46	76490-1.RAW	10:24:46 AM	1946.31	1		1940.6	20.797	1039.853	ng/L	
Hg2600-3	BC	SAM	1709610-18	50	9/28/2017 10:28:55	76491-1.RAW	10:28:55 AM	1703.01	1		1697.3	18.187	909.359	ng/L	
Hg2600-3	BC	SAM	1709552-03	50	9/28/2017 10:33:03	76492-1.RAW	10:33:03 AM	55.31	1		49.6	0.514	25.692	ng/L	
Hg2600-3	BC	SAM	F709453-MS1	400	9/28/2017 10:37:12	76493-1.RAW	10:37:12 AM	651.18	1		645.5	6.921	2760.371	ng/L	
Hg2600-3	BC	SAM	F709453-MSD1	400	9/28/2017 10:41:20	76494-1.RAW	10:41:20 AM	675.37	1		669.7	7.181	2872.286	ng/L	
Hg2600-3	BC	SAM	1709552-01RF1	10	9/28/2017 10:45:28	76495-1.RAW	10:45:28 AM	229.96	1		224.3	2.314	23.141	ng/L	
Hg2600-3	BC	SAM	1709552-02RE1	10	9/28/2017 10:49:37	76496-1.RAW	10:49:37 AM	272.35	1		265.7	2.769	27.692	ng/L	
Hg2600-3	BC	SAM	1709552-03RE1	10	9/28/2017 10:53:45	76497-1.RAW	10:53:45 AM	281.85	1		226.0	2.332	23.322	ng/L	
Hg2600-3	BC	BLK	F709412-BLK1	20	9/28/2017 10:57:54	76498-1.RAW	10:57:54 AM	8.14	2		2.4	0.026	0.523	ng/L	
Hg2600-3	BC	BLK	F709412-BLK2	20	9/28/2017 11:02:02	76499-1.RAW	11:02:02 AM	8.71	2		3.0	0.033	0.652	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	9/28/2017 11:06:11	76500-1.RAW	11:06:11 AM	476.63			470.9	5.051	5.051	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	9/28/2017 11:10:19	76501-1.RAW	11:10:19 AM	5.71	2		0.0	0.000	0.000	ng/L	
Hg2600-3	BC	BLK	F709412-BLK3	20	9/28/2017 11:14:28	76502-1.RAW	11:14:28 AM	6.37	2		0.7	0.007	0.144	ng/L	
Hg2600-3	BC	SAM	*F709412-BLK4	20	9/28/2017 11:18:36	76503-1.RAW	11:18:36 AM	7.83	2		2.1	0.001	0.017	ng/L	
Hg2600-3	BC	SAM	*F709412-BLK5	20	9/28/2017 11:22:44	76504-1.RAW	11:22:44 AM	6.14	2		0.4	-0.017	-0.345	ng/L	
Hg2600-3	BC	SAM	F709412-BS1	20	9/28/2017 11:26:53	76505-1.RAW	11:26:53 AM	470.87	2		465.2	4.968	99.350	ng/L	
Hg2600-3	BC	SAM	F709412-BSD1	20	9/28/2017 11:31:01	76506-1.RAW	11:31:01 AM	475.80	2		470.1	5.020	100.408	ng/L	
Hg2600-3	BC	SAM	F709412-BS2	400	9/28/2017 11:35:10	76507-1.RAW	11:35:10 AM	507.58	2		501.9	5.382	2152.852	ng/L	
Hg2600-3	BC	SAM	1709492-01	400	9/28/2017 11:39:18	76508-1.RAW	11:39:18 AM	927.27	2		921.6	9.884	3953.530	ng/L	
Hg2600-3	BC	SAM	1709492-02	400	9/28/2017 11:43:27	76509-1.RAW	11:43:27 AM	855.52	2		847.8	9.093	3637.108	ng/L	
Hg2600-3	BC	SAM	1709492-03	400	9/28/2017 11:47:35	76510-1.RAW	11:47:35 AM	1366.81	2		1361.1	14.598	5839.364	ng/L	
Hg2600-3	BC	SAM	1709492-04	400	9/28/2017 11:51:44	76511-1.RAW	11:51:44 AM	852.74	2		647.0	5.539	2775.667	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	9/28/2017 11:55:52	76512-1.RAW	11:55:52 AM	483.45			477.8	5.124	5.124	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	9/28/2017 12:00:00	76513-1.RAW	12:00:00 PM	11.72			6.0	0.065	0.065	ng/L	
Hg2600-3	BC	SAM	1709492-05	400	9/28/2017 12:04:09	76514-1.RAW	12:04:09 PM	599.82	2		594.1	6.377	2548.615	ng/L	
Hg2600-3	BC	SAM	1709492-06	400	9/28/2017 12:08:17	76515-1.RAW	12:08:17 PM	787.93	2		782.2	8.389	3355.696	ng/L	
Hg2600-3	BC	SAM	1709492-07	400	9/28/2017 12:12:26	76516-1.RAW	12:12:26 PM	1129.03	2		1123.3	12.048	4819.175	ng/L	
Hg2600-3	BC	SAM	1709492-08	400	9/28/2017 12:16:34	76517-1.RAW	12:16:34 PM	1827.23	2		1621.5	17.392	6956.688	ng/L	
Hg2600-3	BC	SAM	1709492-09	400	9/28/2017 12:20:43	76518-1.RAW	12:20:43 PM	1345.05	2		1339.4	14.365	5746.003	ng/L	
Hg2600-3	BC	SAM	1709492-10	400	9/28/2017 12:24:51	76519-1.RAW	12:24:51 PM	528.06	2		522.4	5.602	2240.731	ng/L	
Hg2600-3	BC	SAM	1709492-11	400	9/28/2017 12:29:00	76520-1.RAW	12:29:00 PM	567.50	2		561.8	6.025	2409.947	ng/L	
Hg2600-3	BC	SAM	1709492-12	400	9/28/2017 12:33:08	76521-1.RAW	12:33:08 PM	924.00	2		918.3	9.849	3939.500	ng/L	
Hg2600-3	BC	SAM	1709492-13	400	9/28/2017 12:37:16	76522-1.RAW	12:37:16 PM	858.01	2		852.3	9.141	3656.372	ng/L	
Hg2600-3	BC	SAM	1709492-14	400	9/28/2017 12:41:25	76523-1.RAW	12:41:25 PM	1574.66	2		1569.0	16.828	6731.138	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	9/28/2017 12:45:33	76524-1.RAW	12:45:33 PM	486.29			480.6	5.155	5.155	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB4	1	9/28/2017 12:49:42	76525-1.RAW	12:49:42 PM	12.54			6.8	0.073	0.073	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	SAM	1709489-16	400	9/28/2017 12:53:50	76529-1.RAW	12:53:50 PM	901.68	2		896.0	9.609	3843.737	ng/L	
Hg2600-3	BC	SAM	1709489-16	400	9/28/2017 12:57:59	76527-1.RAW	12:57:59 PM	1729.20	2		1723.5	18.485	7394.188	ng/L	
Hg2600-3	BC	SAM	1709489-17	400	9/28/2017 13:02:07	76528-1.RAW	1:02:07 PM	1707.90	2		1702.2	18.757	7302.801	ng/L	
Hg2600-3	BC	SAM	1709489-18	400	9/28/2017 13:06:18	76529-1.RAW	1:06:18 PM	1295.21	2		1289.5	13.930	5532.166	ng/L	
Hg2600-3	BC	SAM	1709489-18	400	9/28/2017 13:10:24	76530-1.RAW	1:10:24 PM	833.49	2		827.8	8.878	3551.170	ng/L	
Hg2600-3	BC	SAM	1709489-20	400	9/28/2017 13:14:32	76531-1.RAW	1:14:32 PM	557.69	2		532.0	5.795	2282.048	ng/L	
Hg2600-3	BC	SAM	F709412-DUP1	400	9/28/2017 13:18:41	76532-1.RAW	1:18:41 PM	915.64	2		909.9	9.759	3903.632	ng/L	
Hg2600-3	BC	SAM	F709412-MS1	400	9/28/2017 13:22:49	76533-1.RAW	1:22:49 PM	2078.46	2		2072.6	22.232	8892.578	ng/L	
Hg2600-3	BC	SAM	F709412-MSD1	400	9/28/2017 13:26:58	76534-1.RAW	1:26:58 PM	1963.73	2		1958.0	21.001	8400.432	ng/L	
Hg2600-3	BC	SAM	F709412-MS2	400	9/28/2017 13:31:06	76535-1.RAW	1:31:06 PM	1684.21	2		1678.5	18.003	7201.159	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	9/28/2017 13:35:15	76536-1.RAW	1:35:15 PM	494.27			488.6	5.740	5.240	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	9/28/2017 13:39:23	76537-1.RAW	1:39:23 PM	9.92			4.2	0.045	0.045	ng/L	
Hg2600-3	BC	SAM	F709412-MSD2	400	9/28/2017 13:43:32	76538-1.RAW	1:43:32 PM	1693.40	2		1687.7	18.101	7210.589	ng/L	
Hg2600-3	BC	SAM	1709607-01	1	9/28/2017 13:47:40	76539-1.RAW	1:47:40 PM	63.63	4		57.9	0.643	0.643	ng/L	
Hg2600-3	BC	SAM	1709607-04	10	9/28/2017 13:51:48	76540-1.RAW	1:51:48 PM	3234.82	5		3229.1	34.633	346.332	ng/L	
Hg2600-3	BC	BLK	F709469-BLK1	1	9/28/2017 13:55:57	76541-1.RAW	1:55:57 PM	13.40	3		7.7	0.083	0.083	ng/L	
Hg2600-3	BC	BLK	F709469-BLK2	1	9/28/2017 14:00:05	76542-1.RAW	2:00:05 PM	7.25	3		1.6	0.017	0.017	ng/L	
Hg2600-3	BC	BLK	F709469-BLK3	1	9/28/2017 14:04:14	76543-1.RAW	2:04:14 PM	5.01	3		-0.7	0.007	-0.007	ng/L	
Hg2600-3	BC	BLK	F709469-BLK4	1	9/28/2017 14:08:22	76544-1.RAW	2:08:22 PM	3.66	4		-2.0	-0.022	-0.022	ng/L	
Hg2600-3	BC	BLK	F709469-BLK5	1	9/28/2017 14:12:31	76545-1.RAW	2:12:31 PM	8.45	5		2.8	0.029	0.029	ng/L	
Hg2600-3	BC	SAM	F709469-BS1	1	9/28/2017 14:16:39	76546-1.RAW	2:16:39 PM	1570.94	3		1565.2	16.758	16.758	ng/L	
Hg2600-3	BC	SAM	F709469-BSD1	1	9/28/2017 14:20:47	76547-1.RAW	2:20:47 PM	1571.90	3		1566.2	16.769	16.769	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	9/28/2017 14:24:56	76548-1.RAW	2:24:56 PM	499.26			493.6	5.294	5.294	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	9/28/2017 14:29:04	76549-1.RAW	2:29:04 PM	11.91			6.2	0.067	0.067	ng/L	
Hg2600-3	BC	SAM	1709607-02	1	9/28/2017 14:33:13	76550-1.RAW	2:33:13 PM	79.98	4		74.3	0.819	0.819	ng/L	
Hg2600-3	BC	SAM	1709607-03	1	9/28/2017 14:37:21	76551-1.RAW	2:37:21 PM	79.40	4		73.7	0.812	0.812	ng/L	
Hg2600-3	BC	SAM	1709607-05	50	9/28/2017 14:41:30	76552-1.RAW	2:41:30 PM	555.73	5		550.0	5.899	294.956	ng/L	
Hg2600-3	BC	SAM	1709607-06	50	9/28/2017 14:45:38	76553-1.RAW	2:45:38 PM	639.72	5		634.0	6.800	340.001	ng/L	
Hg2600-3	BC	SAM	1709607-07	1	9/28/2017 14:49:47	76554-1.RAW	2:49:47 PM	179.82	4		174.1	1.890	1.890	ng/L	
Hg2600-3	BC	SAM	1709607-08	1	9/28/2017 14:53:55	76555-1.RAW	2:53:55 PM	211.21	4		205.5	2.226	2.226	ng/L	
Hg2600-3	BC	SAM	1709607-09	1	9/28/2017 14:58:03	76556-1.RAW	2:58:03 PM	218.76	4		213.1	2.307	2.307	ng/L	
Hg2600-3	BC	SAM	1709607-10	50	9/28/2017 15:02:12	76557-1.RAW	3:02:12 PM	466.25	5		460.6	4.939	246.968	ng/L	
Hg2600-3	BC	SAM	1709607-11	50	9/28/2017 15:06:20	76558-1.RAW	3:06:20 PM	753.31	5		747.6	8.018	400.920	ng/L	
Hg2600-3	BC	SAM	1709607-12	50	9/28/2017 15:10:29	76559-1.RAW	3:10:29 PM	661.21	5		655.5	7.031	351.526	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	9/28/2017 15:14:37	76560-1.RAW	3:14:37 PM	497.87			492.2	5.279	5.279	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	9/28/2017 15:18:46	76561-1.RAW	3:18:46 PM	10.85			5.2	0.055	0.055	ng/L	
Hg2600-3	BC	SAM	1709609-01	1	9/28/2017 15:22:54	76562-1.RAW	3:22:54 PM	38.15	4		32.5	0.370	0.370	ng/L	
Hg2600-3	BC	SAM	1709609-02	1	9/28/2017 15:27:03	76563-1.RAW	3:27:03 PM	44.27	4		38.6	0.436	0.436	ng/L	
Hg2600-3	BC	SAM	1709609-03	1	9/28/2017 15:31:11	76564-1.RAW	3:31:11 PM	40.93	4		35.2	0.400	0.400	ng/L	
Hg2600-3	BC	SAM	1709609-04	1	9/28/2017 15:35:19	76565-1.RAW	3:35:19 PM	1204.15	4		1198.5	12.877	12.877	ng/L	
Hg2600-3	BC	SAM	1709609-05	1	9/28/2017 15:39:28	76566-1.RAW	3:39:28 PM	1192.63	4		1186.9	12.753	12.753	ng/L	
Hg2600-3	BC	SAM	1709609-06	1	9/28/2017 15:43:34	76567-1.RAW	3:43:34 PM	1358.73	4		1353.0	14.535	14.535	ng/L	
Hg2600-3	BC	SAM	1709609-07	1	9/28/2017 15:47:43	76568-1.RAW	3:47:43 PM	110.13	4		104.4	1.142	1.142	ng/L	
Hg2600-3	BC	SAM	1709609-08	1	9/28/2017 15:51:51	76569-1.RAW	3:51:51 PM	108.22	4		102.5	1.122	1.122	ng/L	
Hg2600-3	BC	SAM	F709469-DUP1	50	9/28/2017 15:56:00	76570-1.RAW	3:56:00 PM	551.08	5		545.4	5.849	292.463	ng/L	
Hg2600-3	BC	SAM	F709469-MS1	50	9/28/2017 16:00:08	76571-1.RAW	4:00:08 PM	1547.68	5		1542.0	16.539	826.948	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	9/28/2017 16:04:18	76572-1.RAW	4:04:18 PM	507.06			501.4	5.378	5.378	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8	1	9/28/2017 16:08:26	76573-1.RAW	4:08:26 PM	11.57			5.9	0.053	0.053	ng/L	
Hg2600-3	BC	SAM	F709469-MSD1	50	9/28/2017 16:12:33	76574-1.RAW	4:12:33 PM	1553.79	5		1548.1	16.604	830.225	ng/L	
Hg2600-3	BC	SAM	F709469-MS2	50	9/28/2017 16:16:42	76575-1.RAW	4:16:42 PM	1477.62	5		1471.9	15.787	789.574	ng/L	
Hg2600-3	BC	SAM	F709469-MSD2	50	9/28/2017 16:20:50	76576-1.RAW	4:20:50 PM	1466.54	5		1460.8	15.669	783.432	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV9	1	9/28/2017 16:24:59	76577-1.RAW	4:24:59 PM	509.60			503.9	5.405	5.405	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB9	1	9/28/2017 16:29:07	76578-1.RAW	4:29:07 PM	12.63			6.9	0.074	0.074	ng/L	

TotalMercury EPA1631
 Operat BC
 Works THg260
 Method #####
 BlankSi 5.7003
 CalibFa 93.23
 R: 1
 R2: 1
 Calib Eqn: Conc = (Area-5.700
 Status: QC Warnings:3/QC E
 Run Date: 9/28/2017
 Run Time: 10:20:37
 Blank SD: 0.88588585
 Blank RSD%: 15.54109446
 CF SD: 1.791208949
 CF RSD%: 1.92127896

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ctf)	Flags	RunCount
Clean				0.00	2.24					76464-1.RAW	8:26:22	208.40	Clean	OK	1
CLEAN										76465-1.RAW	8:29:13	0.00	Clean	NP	1
WS				5.70	0.00					76466-1.RAW	8:33:22	0.53	Sample	OK	1
WS				5.70	0.00					76467-1.RAW	8:37:30	1.49	Sample	OK	1
WS										76468-1.RAW	8:41:39	0.00	Sample	NP	1
SEQ-IBL1	A1		1	0.00	0.07					76469-1.RAW	8:45:47	6.72	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.06					76470-1.RAW	8:49:56	5.13	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.06					76471-1.RAW	8:54:04	5.25	Sample	OK	1
SEQ-CAL1	A4		1	5.70	0.50			99.59		76472-1.RAW	8:58:12	52.12	Sample	OK	1
SEQ-CAL2	A5		1	5.70	1.03			103.36		76473-1.RAW	9:02:21	102.07	Sample	OK	1
SEQ-CAL3	A6		1	5.70	4.95			98.98		76474-1.RAW	9:06:29	467.10	Sample	OK	1
SEQ-CAL4	A7		1	5.70	19.89			99.47		76475-1.RAW	9:10:38	1860.45	Sample	OK	1
SEQ-CAL5	A8		1	5.70	39.44			98.60		76476-1.RAW	9:14:46	3682.57	Sample	FB	1
SEQ-ICV1	A9		1	5.70	4.92			98.47		76477-1.RAW	9:18:55	484.73	Sample	OK	1
F709453-BL K1	A10		10	5.70	0.91					76478-1.RAW	9:28:38	14.22	Sample	OK	1
F709453-BS1	A11		10	5.70	200.58					76479-1.RAW	9:32:47	1875.73	Sample	OK	1
F709453-BSD1	A12		10	5.70	207.99					76480-1.RAW	9:36:55	1944.76	Sample	OK	1
1709552-01	B1		50	5.70	26.14					76481-1.RAW	9:41:04	54.45	Sample	OK	1
1709552-02	B2		50	5.70	28.76					76482-1.RAW	9:45:12	59.33	Sample	OK	1
1709583-01	B3		50	5.70	507.66					76483-1.RAW	9:49:21	952.28	Sample	OK	1
1709583-02	B4		50	5.70	419.59					76484-1.RAW	9:53:29	788.06	Sample	OK	1
1709583-03	B5		50	5.70	383.07					76485-1.RAW	9:57:38	719.97	Sample	OK	1
1709610-15	B6		50	5.70	1046.23					76486-1.RAW	10:01:46	1956.49	Sample	OK	1
1709610-16	B7		50	5.70	947.82					76487-1.RAW	10:05:54	1773.01	Sample	OK	1
SEQ-CCV1	B8		1	5.70	4.96			99.11		76488-1.RAW	10:10:03	467.69	Sample	OK	1
SEQ-CCB1	B9		1	5.70	0.03			0.00		76489-1.RAW	10:14:11	8.78	Sample	OK	1
1709610-17	B10		50	5.70	1040.76					76490-1.RAW	10:24:46	1946.31	Sample	OK	1
1709610-18	B11		50	5.70	910.28					76491-1.RAW	10:28:55	1703.01	Sample	OK	1
1709552-03	B12		50	5.70	26.60					76492-1.RAW	10:33:03	55.31	Sample	OK	1
F709453-MS1	C1		400	5.70	2769.28			10031.97		76493-1.RAW	10:37:12	651.15	Sample	OK	1
F709453-MSD1	C2		400	5.70	2873.19					76494-1.RAW	10:41:20	675.37	Sample	OK	1
1709552-01RE1	C3		10	5.70	24.05					76495-1.RAW	10:45:28	229.96	Sample	OK	1
1709552-02RE1	C4		10	5.70	28.61					76496-1.RAW	10:49:37	272.39	Sample	OK	1
1709552-03RE1	C5		10	5.70	24.24					76497-1.RAW	10:53:45	231.65	Sample	OK	1
F709412-BLK1	C6		20	5.70	0.52					76498-1.RAW	10:57:54	8.14	Sample	OK	1
F709412-BLK2	C7		20	5.70	0.65					76499-1.RAW	11:02:02	8.74	Sample	OK	1
SEQ-CCV2	C8		1	5.70	5.05			101.03		76500-1.RAW	11:06:11	476.63	Sample	OK	1
SEQ-CCB2	C9		1	5.70	0.00			0.00		76501-1.RAW	11:10:19	5.71	Sample	OK	1
F709412-BLK3	C10		20	5.70	0.14					76502-1.RAW	11:14:28	6.37	Sample	OK	1
F709412-BLK4	C11		20	5.70	0.46					76503-1.RAW	11:18:36	7.83	Sample	OK	1
F709412-BLK5	C12		20	5.70	0.09					76504-1.RAW	11:22:44	6.14	Sample	OK	1
F709412-BS1	D1		20	5.70	99.79					76505-1.RAW	11:26:53	470.87	Sample	OK	1
F709412-BSD1	D2		20	5.70	100.85					76506-1.RAW	11:31:01	475.80	Sample	OK	1

F709412-BS2	D3	400	5.70	2153.29		76507-1.RAW	11:35:10	507.58	Sample	OK	1
1709492-01	D4	400	5.70	3953.97		76508-1.RAW	11:39:18	927.27	Sample	OK	1
1709492-02	D5	400	5.70	3637.52		76509-1.RAW	11:43:27	853.52	Sample	OK	1
1709492-03	D6	400	5.70	5839.77		76510-1.RAW	11:47:35	1366.81	Sample	OK	1
1709492-04	D7	400	5.70	2776.11		76511-1.RAW	11:51:44	652.74	Sample	OK	1
SEQ-CCV3	D8	1	5.70	5.12	102.49	76512-1.RAW	11:55:52	483.45	Sample	OK	1
SEQ-CCB3	D9	1	5.70	0.06	0.00	76513-1.RAW	12:00:00	11.72	Sample	OK	1
1709492-05	D10	400	5.70	2549.04		76514-1.RAW	12:04:09	599.82	Sample	OK	1
1709492-06	D11	400	5.70	3356.14		76515-1.RAW	12:08:17	787.93	Sample	OK	1
1709492-07	D12	400	5.70	4819.62		76516-1.RAW	12:12:26	1129.03	Sample	OK	1
1709492-08	A1	400	5.70	6957.13		76517-1.RAW	12:16:34	1627.23	Sample	OK	1
1709492-09	A2	400	5.70	5746.42		76518-1.RAW	12:20:43	1345.05	Sample	OK	1
1709492-10	A3	400	5.70	2241.19		76519-1.RAW	12:24:51	528.06	Sample	OK	1
1709492-11	A4	400	5.70	2410.37		76520-1.RAW	12:29:00	567.50	Sample	OK	1
1709492-12	A5	400	5.70	3939.92		76521-1.RAW	12:33:08	924.00	Sample	OK	1
1709492-13	A6	400	5.70	3656.80		76522-1.RAW	12:37:16	858.01	Sample	OK	1
1709492-14	A7	400	5.70	6731.58		76523-1.RAW	12:41:25	1574.66	Sample	OK	1
SEQ-CCV4	A8	1	5.70	5.15	103.10	76524-1.RAW	12:45:33	486.29	Sample	OK	1
SEQ-CCB4	A9	1	5.70	0.07	0.00	76525-1.RAW	12:49:42	12.54	Sample	OK	1
1709492-15	A10	400	5.70	3844.19		76526-1.RAW	12:53:50	901.68	Sample	OK	1
1709492-16	A11	400	5.70	7394.62		76527-1.RAW	12:57:59	1729.20	Sample	OK	1
1709492-17	A12	400	5.70	7303.23		76528-1.RAW	13:02:07	1707.90	Sample	OK	1
1709492-18	B1	400	5.70	5532.58		76529-1.RAW	13:06:16	1295.21	Sample	OK	1
1709492-19	B2	400	5.70	3551.62		76530-1.RAW	13:10:24	833.49	Sample	OK	1
1709492-20	B3	400	5.70	2282.48		76531-1.RAW	13:14:32	537.69	Sample	OK	1
F709412-DUP1	B4	400	5.70	3904.06		76532-1.RAW	13:18:41	915.64	Sample	OK	1
F709412-MS1	B5	400	5.70	8893.08	227.73	76533-1.RAW	13:22:49	2078.46	Sample	OK	1
F709412-MSD1	B6	400	5.70	8400.84		76534-1.RAW	13:26:58	1963.73	Sample	FB	1
F709412-MS2	B7	400	5.70	7201.57	85.70	76535-1.RAW	13:31:06	1684.21	Sample	OK	1
SEQ-CCV5	B8	1	5.70	5.24	104.81	76536-1.RAW	13:35:15	494.27	Sample	OK	1
SEQ-CCB5	B9	1	5.70	0.05	0.00	76537-1.RAW	13:39:23	9.92	Sample	OK	1
F709412-MSD2	B10	400	5.70	7241.01		76538-1.RAW	13:43:32	1693.40	Sample	OK	1
1709607-01	B11	1	5.70	0.62		76539-1.RAW	13:47:40	63.63	Sample	OK	1
1709607-04	B12	10	5.70	346.36		76540-1.RAW	13:51:48	3234.82	Sample	FB	1
F709469-BLK1	C1	1	5.70	0.08		76541-1.RAW	13:55:57	13.40	Sample	OK	1
F709469-BLK2	C2	1	5.70	0.02		76542-1.RAW	14:00:05	7.25	Sample	OK	1
F709469-BLK3	C3	1	5.70	0.00		76543-1.RAW	14:04:14	5.01	Sample	OK	1
F709469-BLK4	C4	1	5.70	0.00		76544-1.RAW	14:08:22	3.66	Sample	OK	1
F709469-BLK5	C5	1	5.70	0.03		76545-1.RAW	14:12:31	8.45	Sample	OK	1
F709469-BS1	C6	1	5.70	16.79		76546-1.RAW	14:16:39	1570.94	Sample	OK	1
F709469-BSD1	C7	1	5.70	16.80		76547-1.RAW	14:20:47	1571.90	Sample	FB	1
SEQ-CCV6	C8	1	5.70	5.29	105.88	76548-1.RAW	14:24:56	499.26	Sample	OK	1
SEQ-CCB6	C9	1	5.70	0.07	0.00	76549-1.RAW	14:29:04	11.91	Sample	OK	1
1709607-02	C10	1	5.70	0.80		76550-1.RAW	14:33:13	79.98	Sample	OK	1
1709607-03	C11	1	5.70	0.79		76551-1.RAW	14:37:21	79.40	Sample	OK	1
1709607-05	C12	50	5.70	294.98		76552-1.RAW	14:41:30	555.73	Sample	OK	1
1709607-06	D1	50	5.70	340.03		76553-1.RAW	14:45:38	639.72	Sample	OK	1
1709607-07	D2	1	5.70	1.87		76554-1.RAW	14:49:47	179.82	Sample	OK	1

1709607-08	D3	1	5.70	2.20		76555-1.RAW	14:53:55	211.21	Sample	OK	1
1709607-09	D4	1	5.70	2.29		76556-1.RAW	14:58:03	218.76	Sample	OK	1
1709607-10	D5	50	5.70	247.00		76557-1.RAW	15:02:12	466.25	Sample	OK	1
1709607-11	D6	50	5.70	400.95		76558-1.RAW	15:06:20	753.31	Sample	OK	1
1709607-12	D7	50	5.70	351.55		76559-1.RAW	15:10:29	661.21	Sample	OK	1
SEQ-CCV7	D8	1	5.70	5.28	105.58	76560-1.RAW	15:14:37	497.87	Sample	OK	1
SEQ-CCB7	D9	1	5.70	0.06	0.00	76561-1.RAW	15:18:46	10.85	Sample	OK	1
1709609-01	D10	1	5.70	0.35		76562-1.RAW	15:22:54	38.15	Sample	OK	1
1709609-02	D11	1	5.70	0.41		76563-1.RAW	15:27:03	44.27	Sample	OK	1
1709609-03	D12	1	5.70	0.38		76564-1.RAW	15:31:11	40.93	Sample	OK	1
1709609-04	A1	1	5.70	12.85		76565-1.RAW	15:35:19	1204.15	Sample	OK	1
1709609-05	A2	1	5.70	12.73		76566-1.RAW	15:39:26	1192.63	Sample	OK	1
1709609-06	A3	1	5.70	14.51		76567-1.RAW	15:43:34	1358.73	Sample	OK	1
1709609-07	A4	1	5.70	1.12		76568-1.RAW	15:47:43	110.13	Sample	OK	1
1709609-08	A5	1	5.70	1.10		76569-1.RAW	15:51:51	108.22	Sample	OK	1
F709469-DUP1	A6	50	5.70	292.49		76570-1.RAW	15:56:00	551.08	Sample	OK	1
F709469-MS1	A7	50	5.70	826.98	281.77	76571-1.RAW	16:00:08	1547.68	Sample	OK	1
SEQ-CCV8	A8	1	5.70	5.38	107.56	76572-1.RAW	16:04:16	507.08	Sample	OK	1
SEQ-CCB8	A9	1	5.70	0.06	0.00	76573-1.RAW	16:08:25	11.57	Sample	OK	1
F709469-MSD1	A10	50	5.70	830.26		76574-1.RAW	16:12:33	1553.79	Sample	OK	1
F709469-MS2	A11	50	5.70	789.40	94.85	76575-1.RAW	16:16:42	1477.62	Sample	OK	1
F709469-MSD2	A12	50	5.70	783.46		76576-1.RAW	16:20:50	1466.54	Sample	OK	1
SEQ-CCV9	B1	1	5.70	5.40	108.10	76577-1.RAW	16:24:59	509.60	Sample	OK	1
SEQ-CCB9	B2	1	5.70	0.07	0.00	76578-1.RAW	16:29:07	12.63	Sample	OK	1

ANALYSIS SEQUENCE

7129016



QUALITY ASSURANCE

PEER-REVIEWED

INITIALS: *a* 9/29/17
Analyzed: 9/28/2017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7129016-IBL1 ✓	QC	1			
7129016-IBL2 ✓	QC	2			
7129016-IBL3 ✓	QC	3			
7129016-CAL1 ✓	QC	4	1704505	✓	
7129016-CAL2 ✓	QC	5	1704506	✓	
7129016-CAL3 ✓	QC	6	1704507	✓	
7129016-CAL4 ✓	QC	7	1704508	✓	
7129016-CAL5 ✓	QC	8	1704509	✓	
7129016-ICV1 ✓	QC	9	1705628	✓	
7129016-CCV1 ✓	QC	10	1705628	✓	
7129016-CCB1 ✓	QC	11			
7129016-CCV2 ✓	QC	12	1705628	✓	
7129016-CCB2 ✓	QC	13			
7129016-CCV3 ✓	QC	14	1705628	✓	
7129016-CCB3 ✓	QC	15			
7129016-CCV4 ✓	QC	16	1705628	✓	
7129016-CCB4 ✓	QC	17			
7129016-CCV5 ✓	QC	18	1705628	✓	
7129016-CCB5 ✓	QC	19			
1709607-01 ✓	Hg-CVAFS-W-1631	20			
1709607-04 ✓	Hg-CVAFS-W-1631	21			
F709469-BLK1 ✓	QC	22			
F709469-BLK2 ✓	QC	23			
F709469-BLK3 ✓	QC	24			
F709469-BLK4 ✓	QC	25			
F709469-BLK5 ✓	QC	26			
F709469-BS1 ✓	QC	27			
F709469-BSD1 ✓	QC	28			
7129016-CCV6 ✓	QC	29	1705628	✓	
7129016-CCB6 ✓	QC	30			
1709607-02 ✓	Hg-CVAFS-W-1631	31			
1709607-03 ✓	Hg-CVAFS-W-1631	32			
1709607-05 ✓	Hg-CVAFS-W-1631	33			
1709607-06 ✓	Hg-CVAFS-W-1631	34			
1709607-07 ✓	Hg-CVAFS-W-1631	35			

Due Date: 10/20/2017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 9/28/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709607-08 ✓	Hg-CVAFS-W-1631	36			
1709607-09 ✓	Hg-CVAFS-W-1631	37			
1709607-10 ✓	Hg-CVAFS-W-1631	38			
1709607-11 ✓	Hg-CVAFS-W-1631	39			
1709607-12 ✓	Hg-CVAFS-W-1631	40			
7129016-CCV7 ✓	QC	41	1705628 ✓		
7129016-CCB7 ✓	QC	42			
1709609-01 ✓	Hg-CVAFS-W-1631	43			
1709609-02 ✓	Hg-CVAFS-W-1631	44			
1709609-03 ✓	Hg-CVAFS-W-1631	45			
1709609-04 ✓	Hg-CVAFS-W-1631	46			
1709609-05 ✓	Hg-CVAFS-W-1631	47			
1709609-06 ✓	Hg-CVAFS-W-1631	48			
1709609-07 ✓	Hg-CVAFS-W-1631	49			
1709609-08 ✓	Hg-CVAFS-W-1631	50			
F709469-DUP1 ✓	QC	51			
F709469-MS1 ✓	QC	52			
7129016-CCV8 ✓	QC	53	1705628 ✓		
7129016-CCB8 ✓	QC	54			
F709469-MSD1 ✓	QC	55			
F709469-MS2 ✓	QC	56			
F709469-MSD2 ✓	QC	57			
7129016-CCV9 ✓	QC	58	1705628 ✓		
7129016-CCB9 ✓	QC	59			

R. Davis ^{29 Analyzed 9/29/17} *R. Davis* ^{9/29/17}
Samples Loaded By _____ Date 9/28/17 Data Processed By _____ Date _____
ordered 9/28/17

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F709469

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/28/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709469-BLK1	Blank	100	101					
F709469-BLK2	Blank	100	101					
F709469-BLK3	Blank	100	101					
F709469-BLK4	Blank	100	102					
F709469-BLK5	Blank	100	105					
F709469-BS1	LCS	50	50.5	1705054	100			
F709469-BSD1	LCS Dup	50	50.5	1705054	100			
F709469-DUP1	Duplicate [1709607-05] ✓	100	105					
F709469-MS1	Matrix Spike [1709607-05] ✓	0.952381	1	1704422 ✓	50 ✓			[Spk] 100mL->105mL; 101mL->101mL; Spiked 1mL ✓
F709469-MS2	Matrix Spike [1709607-11] ✓	0.952381	1	1704422	50			[Spk] 100mL->105mL; 101mL->101mL; Spiked 1mL ✓
F709469-MSD1	Matrix Spike Dup [1709607-05] ✓	0.952381	1	1704422	50			[Spk] 100mL->105mL; 101mL->101mL; Spiked 1mL ✓
F709469-MSD2	Matrix Spike Dup [1709607-11] ✓	0.952381	1	1704422	50			[Spk] 100mL->105mL; 101mL->101mL; Spiked 1mL ✓

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705054	Nist 1641D 200X	21-Aug-18 00:00	1704515	0.2 N BRCL JULY 2017	22-Jan-18 00:00
			1704516	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1705552	3% SnCl2 THg reductant	05-Mar-18 00:00

PREPARATION BENCH SHEET

F709469

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/28/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709607-01	WW1A BU51_09122017_Leach_EHS_R1	100	102	-	-	-	Wood Chip 1709583-01->03 - BU_WC	
1709607-02	WW1B BU51_09122017_Leach_EHS_R2	100	102	-	-	-	Wood Chip 1709583-01->03 - BU_WC	
1709607-03	WW1C BU51_09122017_Leach_EHS_R3	100	102	-	-	-	Wood Chip 1709583-01->03 - BU_WC	
1709607-04	WW1D BU51_09122017_Leach_EHS_R4	100	105	-	-	-	Wood Chip 1709583-01->03 - BU_WC	
1709607-05	WW1E BU51_09122017_Leach_EHS_R5	100	105	-	-	-	Wood Chip 1709583-01->03 - BU_WC	
1709607-06	WW1F BU51_09122017_Leach_EHS_R6	100	105	-	-	-	Wood Chip 1709583-01->03 - BU_WC	
1709607-07	WW1G BU51_09122017_Leach_ELS_R1	100	102	-	-	-	Wood Chip 1709583-01->03 - BU_WC	
1709607-08	WW1H BU51_09122017_Leach_ELS_R2	100	102	-	-	-	Wood Chip 1709583-01->03 - BU_WC	
1709607-09	WW1I BU51_09122017_Leach_ELS_R3	100	102	-	-	-	Wood Chip 1709583-01->03 - BU_WC	
1709607-10	WW1J BU51_09122017_Leach_ELS_R4	100	105	-	-	-	Wood Chip 1709583-01->03 - BU_WC	
1709607-11	WW1K BU51_09122017_Leach_ELS_R5	100	105	-	-	-	Wood Chip 1709583-01->03 - BU_WC	
1709607-12	WW1L BU51_09122017_Leach_ELS_R6	100	105	-	-	-	Wood Chip 1709583-01->03 - BU_WC	
1709609-01	WW2A FF52_091317_Leach_EHS_R1	100	102	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	
1709609-02	WW2B FF52_091317_Leach_EHS_R2	100	102	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	
1709609-03	WW2C FF52_091317_Leach_EHS_R3	100	102	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	
1709609-04	WW2D FF52_091317_Leach_EHS_R4	100	102	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	
1709609-05	WW2E FF52_091317_Leach_EHS_R5	100	102	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	
1709609-06	WW2F FF52_091317_Leach_EHS_R6	100	102	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	
1709609-07	WW2G FF52_091317_Leach_ELS_R1	100	102	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F709469

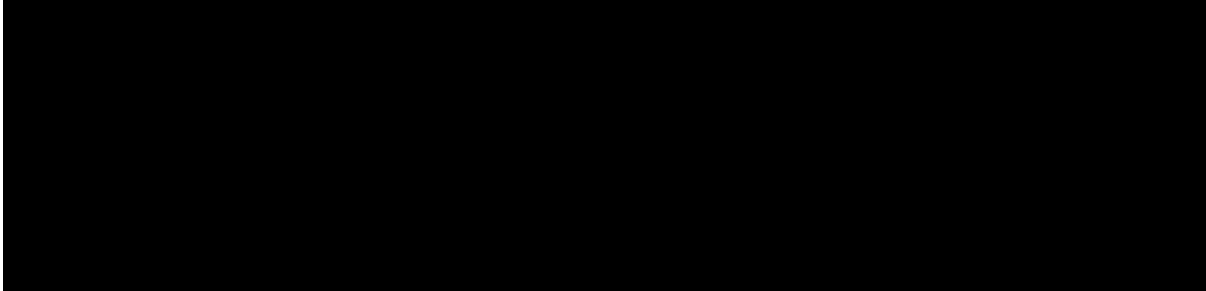
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/28/2017

1709609-08	WW2H FF52_091317_Leach_FLS_R2	100	102	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	
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PREPARATION BENCH SHEET

SLC 9/28/17

2600-3

F709469

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/28/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709469-BLK1	Blank	100	101					50ml -
F709469-BLK2	Blank	100	101					50ml -
F709469-BLK3	Blank	100	101					50ml -
F709469-BLK4	Blank	100	102					50ml -
F709469-BLK5	Blank	100	105					50ml -
F709469-BS1	LCS	100	101	1705554	100			50ml -
F709469-BSD1	LCS Dup	100	101	L	L			50ml -
F709469-DUP1	Duplicate 1709607-05	100	101					50 ml -
F709469-MS1	Matrix Spike 1709607-05	100	101	1704422	50			1ml -
F709469-MS2	Matrix Spike 1709607-11	100	101	1704422	50			1ml -
F709469-MSD1	Matrix Spike Dup 1709607-05	100	101	1704422	50			1ml -
F709469-MSD2	Matrix Spike Dup 1709607-11	100	101	1704422	50			1ml -

Standard ID(s): Description:

Expiration:

50 ml = 1X
1 ml = 50X

1705552
1704516
1704517
1703192

Due Date: 10/20/2017

PREPARATION BENCH SHEET

BC 9/29/17
2600-3

F709469

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/28/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709607-01	WW1A BU51_09122017_Leach_EHS_R1	100	102 ✓	-	-	-	Wood Chip 1709583-01->03 - BU_WC	50mL
1709607-02	WW1B BU51_09122017_Leach_EHS_R2	100	102 ✓	-	-	-	Wood Chip 1709583-01->03 - BU_WC	50mL
1709607-03	WW1C BU51_09122017_Leach_EHS_R3	100	102 ✓	-	-	-	Wood Chip 1709583-01->03 - BU_WC	50mL
1709607-04	WW1D BU51_09122017_Leach_EHS_R4	100	105 ✓	-	-	-	Wood Chip 1709583-01->03 - BU_WC	50mL
1709607-05	WW1E BU51_09122017_Leach_EHS_R5	100	105 ✓	-	-	-	Wood Chip 1709583-01->03 - BU_WC	1mL
1709607-06	WW1F BU51_09122017_Leach_EHS_R6	100	105 ✓	-	-	-	Wood Chip 1709583-01->03 - BU_WC	1mL
1709607-07	WW1G BU51_09122017_Leach_ELS_R1	100	102 ✓	-	-	-	Wood Chip 1709583-01->03 - BU_WC	50mL
1709607-08	WW1H BU51_09122017_Leach_ELS_R2	100	102 ✓	-	-	-	Wood Chip 1709583-01->03 - BU_WC	50mL
1709607-09	WW1I BU51_09122017_Leach_ELS_R3	100	102 ✓	-	-	-	Wood Chip 1709583-01->03 - BU_WC	50mL
1709607-10	WW1J BU51_09122017_Leach_ELS_R4	100	105 ✓	-	-	-	Wood Chip 1709583-01->03 - BU_WC	1mL
1709607-11	WW1K BU51_09122017_Leach_ELS_R5	100	105 ✓	-	-	-	Wood Chip 1709583-01->03 - BU_WC	1mL
1709607-12	WW1L BU51_09122017_Leach_ELS_R6	100	105 ✓	-	-	-	Wood Chip 1709583-01->03 - BU_WC	1mL
1709609-01	WW2A FF52_091317_Leach_EHS_R1	100	102 ✓	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	that 50mL
1709609-02	WW2B FF52_091317_Leach_EHS_R2	100	102 ✓	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	that 50mL
1709609-03	WW2C FF52_091317_Leach_EHS_R3	100	102 ✓	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	that 50mL
1709609-04	WW2D FF52_091317_Leach_EHS_R4	100	102 ✓	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	that 50mL
1709609-05	WW2E FF52_091317_Leach_EHS_R5	100	101 102	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	50mL
1709609-06	WW2F FF52_091317_Leach_EHS_R6	100	101 102	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	50mL
1709609-07	WW2G FF52_091317_Leach_ELS_R1	100	101 102	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	50mL

Due Date: 10/20/2017

PREPARATION BENCH SHEET

BL 9/29/17

2600-3

F709469

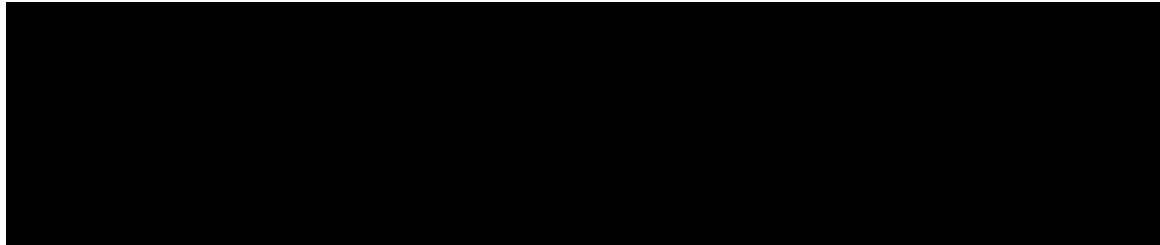
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/28/2017

1709609-08	WW2H FF52_091317_Leach_ELS_R2	100	101 102	-	-	-	Wood Chip 1709529-01->03 - FFBU_6	50 mL
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Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 9/27/17 Time Completed: 13:25

Work Orders: 1709607
1709609

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1704515

Pipette SN: J07631

Cal. Date: 9/27/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1709607-01C	100	2.00	Y			
1709607-02C	100	2.00	Y			
1709607-03C	110	2.20	Y			
1709607-04C	110	2.20	Y	N	3.30	Y
1709607-05C	120	2.40	Y	N	3.60	Y
1709607-06C	125	2.50	Y	N	3.75	Y
1709607-07C	120	2.40	Y			
1709607-08C	110	2.20	Y			
1709607-09C	110	2.20	Y			
1709607-10C	110	5.50	Y			
1709607-11C	110	5.50	Y			
1709607-12C	110	5.50	Y			
1709609-01C	110	2.20	Y			
1709609-02C	110	2.20	Y			
1709609-03C	110	2.20	Y			
1709609-04C	120	2.40	Y			
1709609-05C	120	2.40	Y			
1709609-06C	110	2.20	Y			
1709609-07C	110	2.20	Y			
1709609-08C	110	2.20	Y			
1709609-09C	110	2.20	Y			
1709609-10C	110	2.20	Y			
1709609-11C	110	2.20	Y			
1709609-12C	110	2.20	Y			
LM 9/27/17						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: All samples preserved at 2% except 1709607-04C, -05C, -06C, -10C, -11C, and -12C at 5% per request of RM.
-LM 9/27/17

ANALYSIS SEQUENCE

QUALITY ASSURANCE
PEER-REVIEWED

7I29015



Instrument: Hg2600-2 ✓

Calibration ID: UNASSIGNED

INITIALS: *R a/r* Analyzed: 9/28/2017 ✓

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7I29015-IBL1 ✓	QC	1			
7I29015-IBL2 ✓	QC	2			
7I29015-IBL3 ✓	QC	3			
7I29015-CAL1 ✓	QC	4	1704505	✓	
7I29015-CAL2 ✓	QC	5	1704506	✓	
7I29015-CAL3 ✓	QC	6	1704507	✓	
7I29015-CAL4 ✓	QC	7	1704508	✓	
7I29015-CAL5 ✓	QC	8	1704509	✓	
7I29015-ICV1 ✓	QC	9	1705628	✓	
7I29015-CCV1 ✓	QC	10	1705628	✓	
7I29015-CCB1 ✓	QC	11			
F709412-BLK1 ✓	QC	12			
F709412-BLK2 ✓	QC	13			
7I29015-CCV2 ✓	QC	14	1705628	✓	
7I29015-CCB2 ✓	QC	15			
F709412-BLK3 ✓	QC	16			
F709412-BLK4 ✓	QC	17			
F709412-BLK5 ✓	QC	18			
F709412-BS1 ✓	QC	19			
F709412-BSD1 ✓	QC	20			
F709412-BS2 ✓	QC	21			
1709492-01 ✓	Hg-CVAFS-T-7030	22			
1709492-02 ✓	Hg-CVAFS-T-7030	23			
1709492-03 ✓	Hg-CVAFS-T-7030	24			
1709492-04 ✓	Hg-CVAFS-T-7030	25			
7I29015-CCV3 ✓	QC	26	1705628	✓	
7I29015-CCB3 ✓	QC	27			
1709492-05 ✓	Hg-CVAFS-T-7030	28			
1709492-06 ✓	Hg-CVAFS-T-7030	29			
1709492-07 ✓	Hg-CVAFS-T-7030	30			
1709492-08 ✓	Hg-CVAFS-T-7030	31			
1709492-09 ✓	Hg-CVAFS-T-7030	32			
1709492-10 ✓	Hg-CVAFS-T-7030	33			
1709492-11 ✓	Hg-CVAFS-T-7030	34			
1709492-12 ✓	Hg-CVAFS-T-7030	35			

Due Date: 10/17/2017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 9/28/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709492-13 ✓	Hg-CVAFS-T-7030	36			
1709492-14 ✓	Hg-CVAFS-T-7030	37			
7129015-CCV4 ✓	QC	38	1705628	✓	
7129015-CCB4 ✓	QC	39			
1709492-15 ✓	Hg-CVAFS-T-7030	40			
1709492-16 ✓	Hg-CVAFS-T-7030	41			
1709492-17 ✓	Hg-CVAFS-T-7030	42			
1709492-18 ✓	Hg-CVAFS-T-7030	43			
1709492-19 ✓	Hg-CVAFS-T-7030	44			
1709492-20 ✓	Hg-CVAFS-T-7030	45			
F709412-DUP1 ✓	QC	46			
F709412-MS1 ✓	QC	47			
F709412-MSD1 ✓	QC	48			
F709412-MS2 ✓	QC	49			
7129015-CCV5 ✓	QC	50	1705628	✓	
7129015-CCB5 ✓	QC	51			
F709412-MSD2 ✓	QC	52			
7129015-CCV6 ✓	QC	53	1705628	✓	
7129015-CCB6 ✓	QC	54			

 9/29/17
Samples Loaded By Date

 9/29/17
Data Processed By Date

10 25 21
9/28/17

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709412

Euofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709412-BLK1	Blank	0.5	40					
F709412-BLK2	Blank	0.5	40					
F709412-BLK3	Blank	0.5	40					
F709412-BLK4	Pre homog blank	0.537	40					
F709412-BLK5	Post homog blank	0.503	40					
F709412-BS1	LCS	0.5	40	1704421	40			
F709412-BS2	DORM4	0.252	40	1703305	252			
F709412-BSD1	LCS Dup	0.5	40	1704421	40			
F709412-DUP1	Duplicate [1709492-01]	0.529	40					
F709412-MS1	Matrix Spike [1709492-01]	0.568	40	1705554	200			
F709412-MS2	Matrix Spike [1709492-11]	0.586	40	1705554	200			
F709412-MSD1	Matrix Spike Dup [1709492-01]	0.532	40	1705554	200			
F709412-MSD2	Matrix Spike Dup [1709492-11]	0.583	40	1705554	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704516	THg Washstation (0.5% BrCl)	
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1705552	3% SnCl2 THg reductant	05-Mar-18 00:00
			1705602	70/30 Digestion Acid	17-Mar-18 00:00
			1705777	5% BrCl	22-Jan-18 00:00
			1705780	70/30 Digestion Acid	25-Mar-18 00:00

PREPARATION BENCH SHEET

F709412

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709492-01	SVE-01_17LT011_091317_LOB_01_TA	0.522	40	QC	-	-	MD/MS/MSD	
1709492-02	SVE-01_17LT011_091317_LOB_02_TA	0.501	40	-	-	-		
1709492-03	SVE-01_17LT011_091317_LOB_03_TA	0.588	40	-	-	-		
1709492-04	SVE-01_17LT011_091317_LOB_04_TA	0.582	40	-	-	-		
1709492-05	SVE-01_17LT011_091317_LOB_05_TA	0.567	40	-	-	-		
1709492-06	SVE-01_17LT011_091317_LOB_06_TA	0.549	40	-	-	-		
1709492-07	SVE-01_17LT011_091317_LOB_07_TA	0.562	40	-	-	-		
1709492-08	SVE-01_17LT011_091317_LOB_08_TA	0.595	40	-	-	-		
1709492-09	SVE-01_17LT012_091317_LOB_09_TA	0.531	40	-	-	-		
1709492-10	SVE-01_17LT012_091317_LOB_10_TA	0.542	40	-	-	-		
1709492-11	SVE-01_17LT012_091317_LOB_11_TA	0.576	40	QC	-	-	MS/MSD	
1709492-12	SVE-01_17LT013_091317_LOB_12_TA	0.564	40	-	-	-		
1709492-13	SVE-01_17LT013_091317_LOB_13_TA	0.502	40	-	-	-		
1709492-14	SVE-01_17LT013_091317_LOB_14_TA	0.505	40	-	-	-		
1709492-15	SVE-01_17LT013_091317_LOB_15_TA	0.53	40	-	-	-		
1709492-16	SVE-01_17LT013_091317_LOB_16_TA	0.562	40	-	-	-		
1709492-17	SVE-01_17LT014_091317_LOB_17_TA	0.509	40	-	-	-		
1709492-18	SVE-01_17LT014_091317_LOB_18_TA	0.567	40	-	-	-		
1709492-19	SVE-01_17LT014_091317_LOB_19_TA	0.547	40	-	-	-		

PREPARATION BENCH SHEET

F709412

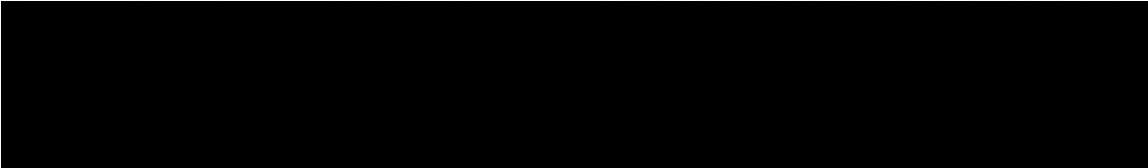
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

1709492-20	SVE-01_17LT043_091517_LOB_20 TA	0.544	40	-	-	-		
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PREPARATION BENCH SHEET

BL 9/29/17
2600-3

F709412

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709412-BLK1	Blank	0.5	40					2.5 mL
F709412-BLK2	Blank	0.5	40					2.5 mL
F709412-BLK3	Blank	0.5	40					2.5 mL
F709412-BLK4	Pre homog blank	0.537	40					2.5 mL
F709412-BLK5	Post homog blank	0.503	40					2.7 mL
F709412-BS1	LCS	0.5	40	1704421	40			2.5 mL
F709412-BS2	DORM4	0.252	40	1703305	252			125 µL
F709412-BSD1	LCS Dup	0.5	40	1704421	40			2.5 mL
F709412-DUP1	Duplicate [1709492-01]	0.529	40					125 µL
F709412-MS1	Matrix Spike [1709492-01]	0.568	40	1705554	200			125 µL
F709412-MS2	Matrix Spike [1709492-11]	0.586	40	1705554	200			125 µL
F709412-MSD1	Matrix Spike Dup [1709492-01]	0.532	40	1705554	200			125 µL
F709412-MSD2	Matrix Spike Dup [1709492-11]	0.583	40	1705554	200			125 µL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1705602	70/30 Digestion Acid	17-Mar-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705777	5% BrCl	22-Jan-18 00:00
			1705780	70/30 Digestion Acid	25-Mar-18 00:00

2.5 mL = 20X
125 µL = 400X

1704516
1704517
1705182
1705552

Due Date: 10/17/2017

PREPARATION BENCH SHEET

2600-3
PK 9/29/17

F709412

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709492-01	SVE-01_17LT011_091317_LOB_01_TA	0.522	40	QC	-	-	MD/MS/MSD 125µL	
1709492-02	SVE-01_17LT011_091317_LOB_02_TA	0.501	40	-	-	-	125µL	
1709492-03	SVE-01_17LT011_091317_LOB_03_TA	0.588	40	-	-	-	125µL	
1709492-04	SVE-01_17LT011_091317_LOB_04_TA	0.582	40	-	-	-	125µL	
1709492-05	SVE-01_17LT011_091317_LOB_05_TA	0.567	40	-	-	-	125µL	
1709492-06	SVE-01_17LT011_091317_LOB_06_TA	0.549	40	-	-	-	1.25µL	
1709492-07	SVE-01_17LT011_091317_LOB_07_TA	0.562	40	-	-	-	1.25µL	
1709492-08	SVE-01_17LT011_091317_LOB_08_TA	0.595	40	-	-	-	125µL	
1709492-09	SVE-01_17LT012_091317_LOB_09_TA	0.531	40	-	-	-	125µL	
1709492-10	SVE-01_17LT012_091317_LOB_10_TA	0.542	40	-	-	-	125µL	
1709492-11	SVE-01_17LT012_091317_LOB_11_TA	0.576	40	QC	-	-	MS/MSD 125µL	
1709492-12	SVE-01_17LT013_091317_LOB_12_TA	0.564	40	-	-	-	125µL	
1709492-13	SVE-01_17LT013_091317_LOB_13_TA	0.502	40	-	-	-	125µL	
1709492-14	SVE-01_17LT013_091317_LOB_14_TA	0.505	40	-	-	-	125µL	
1709492-15	SVE-01_17LT013_091317_LOB_15_TA	0.53	40	-	-	-	125µL	
1709492-16	SVE-01_17LT013_091317_LOB_16_TA	0.562	40	-	-	-	125µL	
1709492-17	SVE-01_17LT014_091317_LOB_17_TA	0.509	40	-	-	-	125µL	
1709492-18	SVE-01_17LT014_091317_LOB_18_TA	0.567	40	-	-	-	125µL	
1709492-19	SVE-01_17LT014_091317_LOB_19_TA	0.547	40	-	-	-	125µL	

Due Date: 10/17/2017

PREPARATION BENCH SHEET

2600-3
BC 9/29/17

F709412

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

1709492-20	SVE-01_1711043_091517_LOB_20_TA	0.544	40	-	-	-	12500 /	
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Technician: BC/AMB Batch#: F709412 Date: 9/26/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 10 Calibrated? Yes No Therm.#: 14545 Calibrated? Yes No

•Time in: 191845 Actual Temp. (raw): 77.0 °C w/ CF: 77.1 °C

Time out: 2045 Actual Temp. (raw): timer °C w/ CF: timer °C

*Time in can't begin before target temperature is reached by 9/26/17

Final vol.: 40 mL (LIMS ID: 1705777) Spike vol.: 200 ^(MS/MSD) µL (LIMS ID: 1705554)

Spike Witness: DM 9/26/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: DU 07852 Calibration Date: 9-26-17

HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1705602, 1705780 Dispenser #: 02K27494 Calibrated? Yes No

Other Acid LIMS ID: N/A Dispenser #: 15406623

Glass Vial # 00067892 Boiling Chip lot # 1202551 *Hotblock Position: H5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F709412 - B1K1	0.536	23	1709412 - MS2	0.586	BS2
2	F709412 - B1K2	0.537	24	F709412 - MSD2	0.583	Dorm 4 1703305
3	F709412 - B1K3	0.515	25	1709492 - 12	0.564	
4	F709412 - B1K4	0.537	26	1709492 - 13	0.502	Comments
5	F709412 - B1K5	0.503	27	1709492 - 14	0.505	
6	F709412 - BS1	0.550	28	1709492 - 15	0.530	1709492-01
7	F709412 - BSD1	0.504	29	1709492 - 16	0.562	DUP, MS1, MSD1
8	F709412 - BS2	0.252	30	1709492 - 17	0.509	
9	1709492-01	0.522	31	1709492 - 18	0.567	1709492-11
10	F709412 - DUP	0.529	32	1709492 - 19	0.547	MS2, MSD2
11	F709412 - MS1	0.568	33	1709492 - 20	0.544	BS1, BSD1
12	F709412 - MSD1	0.532	34			spiked with
13	1709492 - 02	0.501	35			40µl of
14	1709492 - 03	0.588	36			100ng/ml
15	1709492 - 04	0.582	37			LIMS: 1704421
16	1709492 - 05	0.567	38			
17	1709492 - 06	0.549	39			
18	1709492 - 07	0.562	40			spiked and
19	1709492 - 08	0.595	41			acid added
20	1709492 - 09	0.531	42			by AMB.
21	1709492 - 10	0.542	43			9-26-17
22	1709492 - 11	0.576	44			AMB

Failing Data Report - 7129015

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Beckis 9/29/17
Analyst Reviewed By Date

P. Miller 9/29/17
Peer Reviewed By Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE
PEER-REVIEWED

7129014



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *BC* *9/29/17*
Analyzed: 9/28/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7129014-IBL1 ✓	QC	1			
7129014-IBL2 ✓	QC	2			
7129014-IBL3 ✓	QC	3			
7129014-CAL1 ✓	QC	4	1704505 ✓		
7129014-CAL2 ✓	QC	5	1704506 ✓		
7129014-CAL3 ✓	QC	6	1704507 ✓		
7129014-CAL4 ✓	QC	7	1704508 ✓		
7129014-CAL5 ✓	QC	8	1704509 ✓		
7129014-ICV1 ✓	QC	9	1705628 ✓		
F709453-BLK1 ✓	QC	10			
F709453-BS1 ✓	QC	11			
F709453-BSD1 ✓	QC	12			
1709552-01 ✓	Hg-CVAFS-S-7474	13			
1709552-02 ✓	Hg-CVAFS-S-7474	14			
1709583-01 ✓	Hg-CVAFS-S-7474	15			
1709583-02 ✓	Hg-CVAFS-S-7474	16			
1709583-03 ✓	Hg-CVAFS-S-7474	17			
1709610-15 ✓	Hg-CVAFS-S-7474	18			
1709610-16 ✓	Hg-CVAFS-S-7474	19			
7129014-CCV1 ✓	QC	20	1705628 ✓		
7129014-CCB1 ✓	QC	21			
1709610-17 ✓	Hg-CVAFS-S-7474	22			
1709610-18 ✓	Hg-CVAFS-S-7474	23			
1709552-03 ✓	Hg-CVAFS-S-7474	24			
F709453-MS1 ✓	QC	25			
F709453-MSD1 ✓	QC	26			
1709552-01RE1 ✓	Hg-CVAFS-S-7474	27			Added 9/29/2017 by BC
1709552-02RE1 ✓	Hg-CVAFS-S-7474	28			Added 9/29/2017 by BC
1709552-03RE1 ✓	Hg-CVAFS-S-7474	29			Added 9/29/2017 by BC
7129014-CCV2 ✓	QC	30	1705628 ✓		
7129014-CCB2 ✓	QC	31			

BC 9/29/17
Samples Loaded By Date

BC 9/29/17
Data Processed By Date

*10 added
9/28/17*

Due Date: 10/11/2017

PREPARATION BENCH SHEET

F709453

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 9/27/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	μ l Spike1	Spike2 ID	μ l Spike2	Extraction Comments
F709453-BLK1	Blank	0.5	200					
F709453-BS1	Blank spike	0.5	200	1705554	40			
F709453-BSD1	Blank spike	0.5	200	1705554	40			
F709453-MS1	Matrix Spike [1709552-03]	0.5483	200	1705286	50			
F709453-MSD1	Matrix Spike Dup [1709552-03]	0.5764	200	1705286	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705286	THg 10,000ng/mL Primary Spiking Standard	30-Nov-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704516	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1705287	Omnitrace Hydrochloric Acid	30-Aug-20 00:00
			1705552	3% SnCl ₂ THg reductant	05-Mar-18 00:00
			1705679	Fisher Nitric Acid, Tracemetel Grade	15-Mar-19 00:00
			1705794	7474 Potassium Bromate/Bromide Reagent	04-Oct-17 00:00

PREPARATION BENCH SHEET

F709453

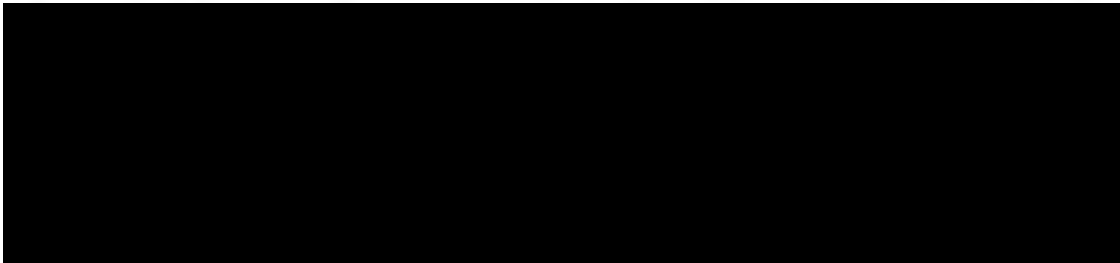
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 9/27/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709552-01	OR-T1-C4-C(1)-17_SED_040-045CM	0.5219	200	-	-	-		
1709552-01RE1	OR-T1-C4-C(1)-17_SED_040-045CM	0.5219	200	-	-	-	Added 9/29/2017 by BC	Added 9/29/2017 by BC
1709552-02	OR-T1-C4-C(1)-17_SED_045-050CM	0.5508	200	-	-	-		
1709552-02RE1	OR-T1-C4-C(1)-17_SED_045-050CM	0.5508	200	-	-	-	Added 9/29/2017 by BC	Added 9/29/2017 by BC
1709552-03	OR-T1-C4-C(1)-17_SED_050-055CM	0.5601	200	-	-	-		
1709552-03RE1	OR-T1-C4-C(1)-17_SED_050-055CM	0.5601	200	-	-	-	Added 9/29/2017 by BC	Added 9/29/2017 by BC
1709583-01	BU_WCH_09122017_03_R1	0.5888	200	-	-	-		
1709583-02	BU_WCH_09122017_03_R2	0.5593	200	-	-	-		
1709583-03	BU_WCH_09122017_03_R3	0.5557	200	-	-	-		
1709610-15	WW3F_VN81_091217_Leach_EHS_R6	0.5873	200	-	-	-	Wood Chip 1709529-04->06 - VN_25V	
1709610-16	WW3J_VN81_091217_Leach_ELS_R4	0.5472	200	-	-	-	Wood Chip 1709529-04->06 - VN_25V	
1709610-17	WW3K_VN81_091217_Leach_ELS_R5	0.5772	200	-	-	-	Wood Chip 1709529-04->06 - VN_25V	
1709610-18	WW3L_VN81_091217_Leach_ELS_R6	0.5501	200	-	-	-	Wood Chip 1709529-04->06 - VN_25V	



PREPARATION BENCH SHEET

2000-3
9/28/17 BC

F709453

Euofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 9/27/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709453-BLK1	Blank	0.5	200					5ml
F709453-BS1	Blank spike	0.5	200	1705554	40			5ml
F709453-BSD1	Blank spike	0.5	200	1705554	40			5ml
F709453-MS1	Matrix Spike [1709552-03]	0.5483	200	1705286	50			125
F709453-MSD1	Matrix Spike Dup [1709552-03]	0.5764	200	1705286	50			125

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705286	THg 10,000ng/mL Primary Spiking Standard	30-Nov-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705287	Omnitrace Hydrochloric Acid	30-Aug-20 00:00
			1705679	Fisher Nitric Acid, Tracemetall Grade	15-Mar-19 00:00
			1705794	7474 Potassium Bromate/Bromide Reagent	04-Oct-17 00:00

1.0ml = 50X
5ml = 10X
125ml = 400X

1704516
1704517
1703182
1705552

PREPARATION BENCH SHEET

2600-2
9/28/17 PSC

F709453

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 9/27/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709552-01	OR-T1-C4-C(1)-17_SED_040-045CM	0.5219	200	-	-	-	1.0 ml	1.0 ml → 5 ml
1709552-02	OR-T1-C4-C(1)-17_SED_045-050CM	0.5508	200	-	-	-		1.0 ml → 5 ml
1709552-03	OR-T1-C4-C(1)-17_SED_050-055CM	0.5601	200	-	-	-		1.0 ml → 5 ml
1709583-01	BU_WCH_09122017_03_R1	0.5888	200	-	-	-		1.0 ml
1709583-02	BU_WCH_09122017_03_R2	0.5593	200	-	-	-		1.0 ml
1709583-03	BU_WCH_09122017_03_R3	0.5557	200	-	-	-		1.0 ml
1709610-15	WW3F VN81_091217_Leach_EHS_R6	0.5873	200	-	-	-	Wood Chip 1709529-04->06 - VN_25V	1.0 ml
1709610-16	WW3J VN81_091217_Leach_ELS_R4	0.5472	200	-	-	-	Wood Chip 1709529-04->06 - VN_25V	1.0 ml
1709610-17	WW3K VN81_091217_Leach_ELS_R5	0.5772	200	-	-	-	Wood Chip 1709529-04->06 - VN_25V	1.0 ml
1709610-18	WW3L VN81_091217_Leach_ELS_R6	0.5501	200	-	-	-	Wood Chip 1709529-04->06 - VN_25V	1.0 ml



Technician: dupin Batch#: F709453 Date: 9/27/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA7474 Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: N/A Calibrated? Yes No
 *Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 *Time in can't begin before target temperature is reached

Final vol.: 25 mL (LIMS ID: R0H02) Spike vol.: 40 µL (LIMS ID: 1705554)
 Spike Witness: CC 9/27/17 (initial and date)

HCl LIMS ID: 1705287 Pipette SN#: MU1169 Calibration Date: 9/26-17
 HNO₃ LIMS ID: 1705679 Pipette SN#: DU07693 Calibration Date: 9-21-17
 70/30 LIMS ID: N/A Dispenser #: 09N45351 Calibrated? Yes No
 Other Acid LIMS ID: 1705794 Dispenser #: 12407691 17421
 Class Vial # 5264713-3025 Boiling Chip lot # 1704424 *Hotblock Position: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> N/A
1	F709453 Blk1	0.5782	23			
2	F709453 Blk2	0.5672	24			
2	F709453 B11	0.5662	25			
3	F709453 B101	0.5556	26			
4	1709552-01A	0.5219	27			9/27/17
5	1709552-02A	0.5508	28			F709453 Source MS16501
6	1709583-01	0.5888	29			MS16501 1709583-03
7	1709583-02	0.5597	30			
8	1709583-03	0.5357	31			
9	F709453-M11	0.5483	32			F709453 MS16501
10	F709553 MS1	0.5764	33			Spike 10,000 µL = 50 µL 1705286
11	1709610-15	0.5873	34			9/27/17 MS
12	1709610-16	0.5472	35			
13	1709610-17	0.5772	36			
14	1709610-18	0.5501	37			
15	1709528-01	0.5717	38			
16	1709552-03	0.5601	39			
18			40			
19			41			
20			42			
21			43			
22			44			

Failing Data Report - 7I29014

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCI	RPD	RPD Limit	Over Cal	Failure	Qualifier
-----------	----------	--------	-----	---------------	------------------	---------------	-------	--------	-------------	-------------	-----	--------------	----------	---------	-----------

[Signature] 9/29/12
Analyst Reviewed By Date

[Signature] 9/29/12
Peer Reviewed By Date

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7129014, 7119015, 7129016
Reviewer: <i>R 9/29/17</i>	Dataset ID(s): THg26003-170928-1
Date: 9/29/2017	WO (s) #: VARIOUS
Batch #(s): F709453, F709412, F709469	

▶ Select the correct preparation method.

Analyte	Prep Method	Matrix	
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70/30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70/30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input checked="" type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg0	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: *BC* **Reviewer Initials:** *R 9/29/17*

- | | | | | |
|---|---|--|-------------------------------------|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?
Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (b) Check 5% of transcription from Instrument print-out and Excel file
Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiry). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input type="checkbox"/> |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel?
50 ml / aliquot = Excel dilution value | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s) _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (ii) 1 GCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7129014, 7119015, 7129016
Reviewer: 0 <i>PC 9/29/17</i>	Dataset ID(s): THg26003-170928-1
Date: 9/29/2017	WO (s) #: VARIOUS
Batch #(s): F709453, F709412, F709469	0

Analyst Initials *BC* **Reviewer Initials** *PC 9/29/17*

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | |
| Comments: _____ | | | | |
| 13. Are the Individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit. | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (if NO, please ensure that they are done or nearly done) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7129014, 7119015, 7129016
Reviewer:	0 <i>R 9/29/17</i>	Dataset ID(s):	THg26003-170928-1
Date:	9/29/2017	WO (s) #:	VARIOUS
Batch #(s):	F709453, F709412, F709469		0

Analyst Initials *BC* Reviewer Initials *R 9/29/17*

20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher)? YES NO
- Comments: _____
21. Are all samples within instrument calibration range? (or at minimum dilution size) PASS FAIL
- Comments: _____
22. Are the samples run at the correct dilution level for the method? YES NO
- Comments: _____
23. Dissolved < Total (if applicable) YES NO N/A
- Comments: _____
24. Effluent < Influent (visually confirm if needed) YES NO N/A
- Comments: _____
25. Are re-runs noted with reason? YES NO N/A
- Comments: _____
26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? YES NO N/A
- Comments: _____
27. Is the B trap <5% A Traps YES NO N/A
- Comments: _____
28. Are spiked trap recoveries 75-125% of true value? YES NO N/A
- Comments: _____
29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
- Comments: _____
30. Have re-extracts been created for non-reportable samples? YES NO N/A
31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. YES NO N/A
32. Does the data set need scanning? YES N/A
33. Does the dataset have an LOQ/LOQ or DOC? YES N/A
34. Water samples: has the preservation log been included in dataset for final volume verification? YES NO N/A
35. Water samples-is the final volume correct in the sequence? YES NO N/A
- Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs**
36. Date of analyst IDOC/CDOC: _____ 1/11/2017, 1/27/17 _____ IDOC/CDOC within last 12 months? YES NO
37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? YES NO
38. Date of LOD: _____ 5/9/17, 4/27/17 _____ LOD within last 3 months? YES NO
39. Date of LOQ: _____ 5/9/17, 4/27/17 _____ LOQ within last 3 months? YES NO

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709493

PO#

C012505850

November 14, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709493

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November 14, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HB-01_17LT019_091317_LOB_01_TA	1709493-01	Tissue	13-Sep-17 07:45	19-Sep-17 09:35
HB-01_17LT021_091317_LOB_02_TA	1709493-02	Tissue	13-Sep-17 07:55	19-Sep-17 09:35
HB-01_17LT022_091317_LOB_03_TA	1709493-03	Tissue	13-Sep-17 08:00	19-Sep-17 09:35
HB-01_17LT022_091317_LOB_04_TA	1709493-04	Tissue	13-Sep-17 08:00	19-Sep-17 09:35
HB-01_17LT022_091317_LOB_05_TA	1709493-05	Tissue	13-Sep-17 08:00	19-Sep-17 09:35
HB-01_17LT023_091317_LOB_06_TA	1709493-06	Tissue	13-Sep-17 08:08	19-Sep-17 09:35
HB-01_17LT034_091517_LOB_07_TA	1709493-07	Tissue	15-Sep-17 13:16	19-Sep-17 09:35
HB-01_17LT034_091517_LOB_08_TA	1709493-08	Tissue	15-Sep-17 13:16	19-Sep-17 09:35
HB-01_17LT034_091517_LOB_09_TA	1709493-09	Tissue	15-Sep-17 13:16	19-Sep-17 09:35
HB-01_17LT036_091517_LOB_10_TA	1709493-10	Tissue	15-Sep-17 13:31	19-Sep-17 09:35
HB-01_17LT036_091517_LOB_11_TA	1709493-11	Tissue	15-Sep-17 13:31	19-Sep-17 09:35
HB-01_17LT036_091517_LOB_12_TA	1709493-12	Tissue	15-Sep-17 13:31	19-Sep-17 09:35
HB-01_17LT036_091517_LOB_13_TA	1709493-13	Tissue	15-Sep-17 13:31	19-Sep-17 09:35
HB-01_17LT049_091517_LOB_14_TA	1709493-14	Tissue	15-Sep-17 13:51	19-Sep-17 09:35
HB-01_17LT049_091517_LOB_15_TA	1709493-15	Tissue	15-Sep-17 13:51	19-Sep-17 09:35
HB-01_17LT050_091517_LOB_16_TA	1709493-16	Tissue	15-Sep-17 13:58	19-Sep-17 09:35
HB-01_17LT052_091517_LOB_17_TA	1709493-17	Tissue	15-Sep-17 14:07	19-Sep-17 09:35
HB-01_17LT052_091517_LOB_18_TA	1709493-18	Tissue	15-Sep-17 14:07	19-Sep-17 09:35
HB-01_17LT052_091517_LOB_19_TA	1709493-19	Tissue	15-Sep-17 14:07	19-Sep-17 09:35
HB-01_17LT052_091517_LOB_20_TA	1709493-20	Tissue	15-Sep-17 14:07	19-Sep-17 09:35

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
14-Nov-17 15:16

REVISED REPORT (11/14/17)

Report was revised as the narrative in the original report did not include a comment that the % lipids requested on the sample submittal form were cancelled by the client. This has been updated in this revised report.

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/19/2017 9:35:00 AM . The samples were received intact, on-ice within nine sealed coolers at -12.7, -24.7, -15.2, -16.8, -12.1, -20.0, -17.3, -16.4, and -30.2 degrees Celsius.

Client requested Lipids Analysis by NOAA1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

The samples were processed following the work instructions provided by the client; EFSR-P-SP-WI11646. All of the samples were defrosted and the tails were then removed from the lobster. The shell was removed, and the meat was weighed, de-veined, and then homogenized before sample prep.

Total solids analysis was performed in accordance with method SM2540B.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B.

The samples were prepped in batch F710241 for % moisture and batch F709441 for total solids. The tail mass was measured in batch F709425.

The samples were prepped in batch F709414 and analyzed in sequence 7I28013 for total Mercury.

Per client request samples 1709493-01 and 1709493-11 were used as the source QC in these batches F710241, F709441, and F709414.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

Client: AMEC Foster Wheeler

Date & Time Received: 9/19/17 9:35

Date Labeled: 9/20/17 Labeled By: JCL

Project: _____

Received By: LMN

Label Verified By: km

of Coolers Received: 9 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y N Temp Blank Used: Y N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<input checked="" type="checkbox"/>	
Custody Seals are present and intact:	<input checked="" type="checkbox"/>	
Custody seals signed:	<input checked="" type="checkbox"/>	

on 9/19/17

TID: <u>170404186</u>	CF: <u>70.1 °C</u>	Date/time: <u>9/19/17 9:40</u>	By: <u>LMN</u>
Cooler 1: <u>-12.80°C</u>	CF: -12.70°C	Cooler 4: <u>-16.86°C</u>	w/ CF: <u>-16.76°C</u>
Cooler 2: <u>-24.80°C</u>	w/ CF: <u>24.70°C</u>	Cooler 5: <u>-12.20°C</u>	w/ CF: <u>-12.10°C</u>
Cooler 3: <u>-15.31°C</u>	w/ CF: <u>-15.21°C</u>	Cooler 6: <u>-20.10°C</u>	w/ CF: <u>-20.00°C</u>

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<input checked="" type="checkbox"/>	
Date and time of collection:	<input checked="" type="checkbox"/>	
Sampled by:	<input checked="" type="checkbox"/>	
Preservation type:	<u>NA</u>	
Requested analyses:	<input checked="" type="checkbox"/>	
Required signatures:	<input checked="" type="checkbox"/>	
Internal COC required:	<u>N</u>	

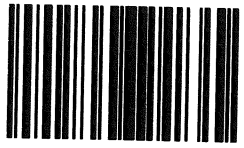
Cooler 7: -17.43°C / CF: -17.33 8: -16.49°C / CF: -16.39 9: -30.26°C / CF: -30.16

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<input checked="" type="checkbox"/>	
Sample labels are present and legible:	<input checked="" type="checkbox"/>	
Sample ID on container/bag matches COC:	<input checked="" type="checkbox"/>	
Correct sample containers used:	<input checked="" type="checkbox"/>	
Samples received within holding times:	<input checked="" type="checkbox"/>	
Sample volume sufficient for requested analyses:	<input checked="" type="checkbox"/>	
Correct preservative used for requested analyses:	<u>NA</u>	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4802 2: 7877 6903 7261
 3: 7877 6903 7272 4: 7877 6903 7283
 5: 7877 6903 7294 6: 7877 6903 7309
 7: 7877 6903 7310 8: 7877 6903 7320
 9: 7877 6903 7331

1709493



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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT019_091317_LOB_01_TA
1709493-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	388	8.99	80.2	ng/g dry	400	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	74.2	1.72	15.3	ng/g	400	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.9	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.1	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	89.0	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT021_091317_LOB_02_TA
1709493-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	561	9.12	81.4	ng/g dry	400	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	99.8	1.62	14.5	ng/g	400	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.2	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.8	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	102	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT022_091317_LOB_03_TA
1709493-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	758	10.5	93.3	ng/g dry	400	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	123	1.70	15.2	ng/g	400	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	83.7	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	16.3	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	101	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT022_091317_LOB_04_TA
1709493-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	362	9.27	82.8	ng/g dry	400	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	66.3	1.70	15.2	ng/g	400	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.7	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.3	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	63.7	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT022_091317_LOB_05_TA
1709493-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	347	9.63	86.0	ng/g dry	400	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	62.7	1.74	15.6	ng/g	400	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.9	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.1	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	54.6	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT023_091317_LOB_06_TA
1709493-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	368	9.62	85.9	ng/g dry	400	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	64.8	1.69	15.1	ng/g	400	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.4	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.6	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	85.1	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT034_091517_LOB_07_TA
1709493-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1110	2.40	21.4	ng/g dry	100	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	184	0.399	3.56	ng/g	100	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	83.4	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	16.6	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	149	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT034_091517_LOB_08_TA
1709493-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	812	2.07	18.5	ng/g dry	100	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	149	0.378	3.38	ng/g	100	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.7	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.3	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	82.0	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT034_091517_LOB_09_TA
1709493-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	521	2.81	25.1	ng/g dry	100	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	82.8	0.447	3.99	ng/g	100	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	84.1	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	15.9	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	66.2	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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Chelmsford MA, 01824

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

**HB-01_17LT036_091517_LOB_10_TA
1709493-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	614	2.33	20.8	ng/g dry	100	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	113	0.428	3.82	ng/g	100	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.6	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.4	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	86.8	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT036_091517_LOB_11_TA
1709493-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	759	2.50	22.4	ng/g dry	100	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	123	0.406	3.62	ng/g	100	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	83.8	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	16.2	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	112	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT036_091517_LOB_12_TA
1709493-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	490	2.56	22.9	ng/g dry	100	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	83.3	0.436	3.89	ng/g	100	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	83.0	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.0	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	83.2	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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Chelmsford MA, 01824

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

**HB-01_17LT036_091517_LOB_13_TA
1709493-13**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	515	2.52	22.5	ng/g dry	100	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	85.6	0.419	3.74	ng/g	100	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	83.4	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	16.6	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	84.4	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT049_091517_LOB_14_TA
1709493-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	611	2.42	21.6	ng/g dry	100	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	108	0.427	3.81	ng/g	100	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.4	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.6	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	94.0	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT049_091517_LOB_15_TA
1709493-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	303	2.40	21.4	ng/g dry	100	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	50.3	0.398	3.55	ng/g	100	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	83.4	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	16.6	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	84.4	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT050_091517_LOB_16_TA
1709493-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	749	2.41	21.5	ng/g dry	100	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	138	0.443	3.95	ng/g	100	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.6	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.4	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	121	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT052_091517_LOB_17_TA
1709493-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	334	2.28	20.3	ng/g dry	100	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	59.4	0.405	3.62	ng/g	100	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.2	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.8	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	102	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT052_091517_LOB_18_TA
1709493-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1230	1.76	15.7	ng/g dry	100	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	264	0.379	3.38	ng/g	100	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	78.5	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	21.5	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	125	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT052_091517_LOB_19_TA
1709493-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	488	2.14	19.1	ng/g dry	100	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	85.9	0.377	3.37	ng/g	100	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.4	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.6	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	64.4	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

HB-01_17LT052_091517_LOB_20_TA
1709493-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	562	2.16	19.3	ng/g dry	100	[CALC]	26-Sep-17		27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	99.4	0.383	3.42	ng/g	100	F709414	26-Sep-17	7128013	27-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.3	0.1	0.1	% by Weight	1	F710241	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.7	0.1	0.1	% by Weight	1	F709441	26-Sep-17		27-Sep-17	SM 2540B	O-04
Sample Preparation: No Preparation											
Tail or Claw Mass	77.1	0.10	0.10	g	1	F709425	25-Sep-17		25-Sep-17	None	



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 14-Nov-17 15:16
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7I28013 - F709414											
Cal Standard (7I28013-CAL1)					Prepared & Analyzed: 27-Sep-17						
Mercury	0.517	-		ng/L	0.50100		103				
Cal Standard (7I28013-CAL2)					Prepared & Analyzed: 27-Sep-17						
Mercury	1.003	-		ng/L	1.0020		100				
Cal Standard (7I28013-CAL3)					Prepared & Analyzed: 27-Sep-17						
Mercury	4.994	-		ng/L	5.0100		99.7				
Cal Standard (7I28013-CAL4)					Prepared & Analyzed: 27-Sep-17						
Mercury	19.66	-		ng/L	20.040		98.1				
Cal Standard (7I28013-CAL5)					Prepared & Analyzed: 27-Sep-17						
Mercury	39.23	-		ng/L	40.080		97.9				
Calibration Blank (7I28013-CCB1)					Prepared & Analyzed: 27-Sep-17						
Mercury	-0.013	-		ng/L							U
Calibration Blank (7I28013-CCB2)					Prepared & Analyzed: 27-Sep-17						
Mercury	0.007	-		ng/L							
Calibration Blank (7I28013-CCB3)					Prepared & Analyzed: 27-Sep-17						
Mercury	0.029	-		ng/L							
Calibration Blank (7I28013-CCB4)					Prepared & Analyzed: 27-Sep-17						
Mercury	0.004	-		ng/L							
Calibration Blank (7I28013-CCB5)					Prepared & Analyzed: 27-Sep-17						
Mercury	0.043	-		ng/L							

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7I28013 - F709414

Calibration Blank (7I28013-CCB6)												Prepared & Analyzed: 27-Sep-17
Mercury	0.035	-		ng/L								
Calibration Blank (7I28013-CCB7)												Prepared & Analyzed: 27-Sep-17
Mercury	0.024	-		ng/L								
Calibration Blank (7I28013-CCB8)												Prepared & Analyzed: 27-Sep-17
Mercury	0.065	-		ng/L								
Calibration Blank (7I28013-CCB9)												Prepared & Analyzed: 27-Sep-17
Mercury	0.080	-		ng/L								
Calibration Check (7I28013-CCV1)												Prepared & Analyzed: 27-Sep-17
Mercury	4.949	-		ng/L	5.0000		99.0	77-123				
Calibration Check (7I28013-CCV2)												Prepared & Analyzed: 27-Sep-17
Mercury	4.959	-		ng/L	5.0000		99.2	77-123				
Calibration Check (7I28013-CCV3)												Prepared & Analyzed: 27-Sep-17
Mercury	5.083	-		ng/L	5.0000		102	77-123				
Calibration Check (7I28013-CCV4)												Prepared & Analyzed: 27-Sep-17
Mercury	5.175	-		ng/L	5.0000		104	77-123				
Calibration Check (7I28013-CCV5)												Prepared & Analyzed: 27-Sep-17
Mercury	5.087	-		ng/L	5.0000		102	77-123				
Calibration Check (7I28013-CCV6)												Prepared & Analyzed: 27-Sep-17
Mercury	5.169	-		ng/L	5.0000		103	77-123				

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271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7I28013 - F709414

Calibration Check (7I28013-CCV7)

Prepared & Analyzed: 27-Sep-17

Mercury	5.262	-		ng/L	5.0000		105	77-123			
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Calibration Check (7I28013-CCV8)

Prepared & Analyzed: 27-Sep-17

Mercury	5.277	-		ng/L	5.0000		106	77-123			
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Calibration Check (7I28013-CCV9)

Prepared & Analyzed: 27-Sep-17

Mercury	5.408	-		ng/L	5.0000		108	77-123			
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Instrument Blank (7I28013-IBL1)

Prepared & Analyzed: 27-Sep-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7I28013-IBL2)

Prepared & Analyzed: 27-Sep-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7I28013-IBL3)

Prepared & Analyzed: 27-Sep-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7I28013-ICV1)

Prepared & Analyzed: 27-Sep-17

Mercury	5.116	-		ng/L	5.0000		102	79-121			
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Batch F709414 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F709414-BLK1)

Prepared: 26-Sep-17 Analyzed: 27-Sep-17

Mercury	ND	0.090	0.800	ng/g							U
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Blank (F709414-BLK2)

Prepared: 26-Sep-17 Analyzed: 27-Sep-17

Mercury	ND	0.090	0.800	ng/g							U
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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F709414 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F709414-BLK3)											
Prepared: 26-Sep-17 Analyzed: 27-Sep-17											
Mercury	ND	0.090	0.800	ng/g							U
Blank (F709414-BLK4)											
Prepared: 26-Sep-17 Analyzed: 27-Sep-17											
Mercury	ND	0.082	0.733	ng/g							F-03, U
Blank (F709414-BLK5)											
Prepared: 26-Sep-17 Analyzed: 27-Sep-17											
Mercury	ND	0.088	0.781	ng/g							F-03, U
LCS (F709414-BS1)											
Prepared: 26-Sep-17 Analyzed: 27-Sep-17											
Mercury	7.996	0.090	0.800	ng/g	8.0160		99.8	75-125			
LCS (F709414-BS2)											
Prepared: 26-Sep-17 Analyzed: 27-Sep-17											
Mercury	359.2	3.29	29.4	ng/g	382.50		93.9	75-125			
LCS Dup (F709414-BSD1)											
Prepared: 26-Sep-17 Analyzed: 27-Sep-17											
Mercury	8.503	0.090	0.800	ng/g	8.0160		106	75-125	6.14	24	
Duplicate (F709414-DUP1)											
Source: 1709493-01 Prepared: 26-Sep-17 Analyzed: 27-Sep-17											
Mercury	73.75	1.69	15.1	ng/g		74.16			0.557	24	
Matrix Spike (F709414-MS1)											
Source: 1709493-01 Prepared: 26-Sep-17 Analyzed: 27-Sep-17											
Mercury	435.8	1.64	14.7	ng/g	366.30	74.16	98.7	71-125			
Matrix Spike (F709414-MS2)											
Source: 1709493-11 Prepared: 26-Sep-17 Analyzed: 27-Sep-17											
Mercury	483.4	1.60	14.3	ng/g	356.51	123.0	101	71-125			
Matrix Spike Dup (F709414-MSD1)											
Source: 1709493-01 Prepared: 26-Sep-17 Analyzed: 27-Sep-17											
Mercury	446.4	1.71	15.2	ng/g	380.95	74.16	97.7	71-125	1.03	24	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F709414 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F709414-MSD2)

Source: 1709493-11

Prepared: 26-Sep-17 Analyzed: 27-Sep-17

Mercury	495.7	1.66	14.8	ng/g	370.37	123.0	101	71-125	0.462	24	
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Amy Goodall, Project Manager



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 14-Nov-17 15:16
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F709441 - EFGS-019 Solids Analysis

Duplicate (F709441-DUP1)		Source: 1709493-01			Prepared: 26-Sep-17 Analyzed: 27-Sep-17						
% Solids	18.6	0.1	0.1	% by Weight		19.1			2.65	25	O-04
Duplicate (F709441-DUP2)		Source: 1709493-11			Prepared: 26-Sep-17 Analyzed: 27-Sep-17						
% Solids	16.1	0.1	0.1	% by Weight		16.2			0.619	25	O-04

Batch F710241 - EFGS-019 Solids Analysis

Duplicate (F710241-DUP1)		Source: 1709493-01			Prepared & Analyzed: 05-Oct-17						
% Moisture	81.4	0.1	0.1	% by Weight		80.9			0.616	10	O-04
Duplicate (F710241-DUP2)		Source: 1709493-11			Prepared & Analyzed: 05-Oct-17						
% Moisture	83.9	0.1	0.1	% by Weight		83.8			0.119	10	O-04

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:16

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- O-04 This sample was analyzed outside of the recommended holding time.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

Total Solids Dataset Cover Page

Dataset ID: TS170926-4
Batch ID: F709441/F710241
Work Order(s): 1709493

Analyst: AMB/CLC
Prep. Date: 9/26/2017

Analytical Issues/Explanations:

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: PC 10/5/17

Preparation Date: Sep 26, 2017

Batch #: 4

Analyst: AMB/CLC

Batch ID: F709441/F710241

Work Order(s): 1709493

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes	% Moisture
1	1709493-01	1.0190	6.3070	5.2880	2.0290	1.0100	19.1%		80.9%
2	1709493-01MD	1.0320	6.1360	5.1040	1.9820	0.9500	18.6%	2.6%	81.4%
3	1709493-02	1.0210	6.5410	5.5200	2.0060	0.9850	17.8%		82.2%
4	1709493-03	1.0500	6.3270	5.2770	1.9080	0.8580	16.3%		83.7%
5	1709493-04	1.0510	6.5090	5.4580	2.0490	0.9980	18.3%		81.7%
6	1709493-05	1.0430	6.5480	5.5050	2.0390	0.9960	18.1%		81.9%
7	1709493-06	1.0390	6.7180	5.6790	2.0390	1.0000	17.6%		82.4%
8	1709493-07	0.9710	6.3400	5.3690	1.8610	0.8900	16.6%		83.4%
9	1709493-08	1.0370	6.3420	5.3050	2.0100	0.9730	18.3%		81.7%
10	1709493-09	1.0490	6.3390	5.2900	1.8900	0.8410	15.9%		84.1%
11	1709493-10	1.0240	6.2910	5.2670	1.9910	0.9670	18.4%		81.6%
12	1709493-11	1.0250	6.4640	5.4390	1.9080	0.8830	16.2%		83.8%
13	1709493-11MD	1.0390	6.1530	5.1140	1.8630	0.8240	16.1%	0.8%	83.9%
14	1709493-12	0.9830	6.1250	5.1420	1.8550	0.8720	17.0%		83.0%
15	1709493-13	1.0170	6.5240	5.5070	1.9330	0.9160	16.6%		83.4%
16	1709493-14	1.0230	6.2010	5.1780	1.9360	0.9130	17.6%		82.4%
17	1709493-15	1.0280	6.7000	5.6720	1.9700	0.9420	16.6%		83.4%
18	1709493-16	1.0070	6.5600	5.5530	2.0270	1.0200	18.4%		81.6%
19	1709493-17	1.0130	6.5180	5.5050	1.9930	0.9800	17.8%		82.2%
20	1709493-18	1.0270	6.6840	5.6570	2.2460	1.2190	21.5%		78.5%
21	1709493-19	0.9870	6.2224	5.2354	1.9090	0.9220	17.6%		82.4%
22	1709493-20	0.9910	6.5530	5.5620	1.9760	0.9850	17.7%		82.3%

PREPARATION BENCH SHEET

F710241

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	μ l Spike1	Spike2 ID	μ l Spike2	Extraction Comments
F710241-DUP1	Duplicate [1709493-01]	5	5					
F710241-DUP2	Duplicate [1709493-11]	5	5					

Standard ID(s): Description:

Expiration:

PREPARATION BENCH SHEET

F710241

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709493-01	HB-01_17LT019_091317_LOB_01_TA	5	5	QC	-	-	MD/MS/MSD	
1709493-02	HB-01_17LT021_091317_LOB_02_TA	5	5	-	-	-		
1709493-03	HB-01_17LT022_091317_LOB_03_TA	5	5	-	-	-		
1709493-04	HB-01_17LT022_091317_LOB_04_TA	5	5	-	-	-		
1709493-05	HB-01_17LT022_091317_LOB_05_TA	5	5	-	-	-		
1709493-06	HB-01_17LT023_091317_LOB_06_TA	5	5	-	-	-		
1709493-07	HB-01_17LT034_091517_LOB_07_TA	5	5	-	-	-		
1709493-08	HB-01_17LT034_091517_LOB_08_TA	5	5	-	-	-		
1709493-09	HB-01_17LT034_091517_LOB_09_TA	5	5	-	-	-		
1709493-10	HB-01_17LT036_091517_LOB_10_TA	5	5	-	-	-		
1709493-11	HB-01_17LT036_091517_LOB_11_TA	5	5	QC	-	-	MS/MSD	
1709493-12	HB-01_17LT036_091517_LOB_12_TA	5	5	-	-	-		
1709493-13	HB-01_17LT036_091517_LOB_13_TA	5	5	-	-	-		
1709493-14	HB-01_17LT049_091517_LOB_14_TA	5	5	-	-	-		
1709493-15	HB-01_17LT049_091517_LOB_15_TA	5	5	-	-	-		
1709493-16	HB-01_17LT050_091517_LOB_16_TA	5	5	-	-	-		
1709493-17	HB-01_17LT052_091517_LOB_17_TA	5	5	-	-	-		
1709493-18	HB-01_17LT052_091517_LOB_18_TA	5	5	-	-	-		
1709493-19	HB-01_17LT052_091517_LOB_19_TA	5	5	-	-	-		

PREPARATION BENCH SHEET

F710241

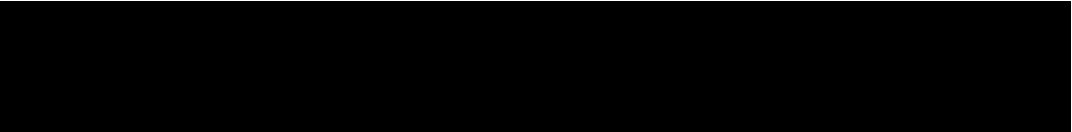
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

1709493-20	HB-01_17LT052_091517_LOB_20_TA	5	5	-	-	-		
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Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: CWF

Date: 9/25/17

Reviewer: DM

Date: 9/27/17

WO #: 1709493

Batch #: F709425

Dataset ID: F709425

Reviewer Initials: DM

General Comments/Re-run requirements:

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date	
<u>CWF</u>	<u>5/2/17</u>	<input checked="" type="checkbox"/>
		<input checked="" type="checkbox"/>

Reviewer Initials: DM

1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

<input type="checkbox"/> Density Only - NA this section			
<input checked="" type="checkbox"/> DONE			<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<u>N/A</u>	<input type="checkbox"/>
<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<u>N/A</u>	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<u>N/A</u>	<input type="checkbox"/>
		<input type="checkbox"/> N/A	<input type="checkbox"/>

2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
 - (v) Volume (if other than 1 mL): _____ . Can the calculated result be reproduced?

<input checked="" type="checkbox"/> Total Solids Only - NA this section			
<input type="checkbox"/> DONE			<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/>

QUALITY ASSURANCE
 PEER-REVIEWED
 INITIALS: DM 9/27/17

PREPARATION BENCH SHEET

F709425

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - No Preparation

Prepared: 9/25/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709493-01	HB-01_17LT019_091317_LOB_01_TA	1	1	QC	-	-	MD/MS/MSD Total Mass of Lobster Ta	
1709493-02	HB-01_17LT021_091317_LOB_02_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-03	HB-01_17LT022_091317_LOB_03_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-04	HB-01_17LT022_091317_LOB_04_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-05	HB-01_17LT022_091317_LOB_05_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-06	HB-01_17LT023_091317_LOB_06_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-07	HB-01_17LT034_091517_LOB_07_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-08	HB-01_17LT034_091517_LOB_08_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-09	HB-01_17LT034_091517_LOB_09_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-10	HB-01_17LT036_091517_LOB_10_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-11	HB-01_17LT036_091517_LOB_11_TA	1	1	QC	-	-	MS/MSD Total Mass of Lobster Tail M	
1709493-12	HB-01_17LT036_091517_LOB_12_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-13	HB-01_17LT036_091517_LOB_13_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-14	HB-01_17LT049_091517_LOB_14_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-15	HB-01_17LT049_091517_LOB_15_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-16	HB-01_17LT050_091517_LOB_16_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-17	HB-01_17LT052_091517_LOB_17_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-18	HB-01_17LT052_091517_LOB_18_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709493-19	HB-01_17LT052_091517_LOB_19_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709425

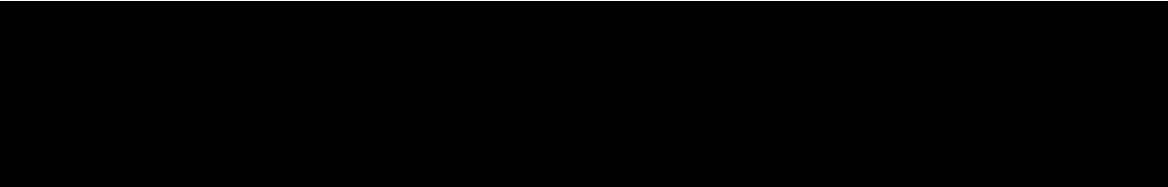
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - No Preparation

Prepared: 9/25/2017

1709493-20	HB-01_17LT052_091517_LOB_20_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
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AmecFW Maine Lobster Special Project 2017- Lobster Homogenization Logbook

Work Order NUMBER	Tech Initials	Date	Thawed Y/ N	Balance ID	Tail Weight (g)	Tail de-veined Y/ N	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	% Lipids Subsample taken Y/N	Comments
1709492-08	DM	9/22/17	Y	18	169.16	Y	2	Y	
1709492-09	DM	9/22/17	Y	18	155.04	Y	2	Y	
1709492-15	AMB	9/22/17	Y	2	129.00	Y	2	Y	
1709492-10 1709492-10	DM	9/22/17	Y	18	80.86	Y	2	Y	
1709492-16	AMB	9/22/17	Y	2	194.49	Y	2	Y	
1709492-11	DM	9/22/17	Y	18	84.27	Y	2	Y	
1709492-12	DM	9/22/17	Y	18	138.93	Y	2	Y	
1709492-17	AMB	9/22/17	Y	2	233.95	Y	2	Y	
1709492-13	DM	9/22/17	Y	18	146.12	Y	2	Y	
1709492-14	DM	9/22/17	Y	18	152.50	Y	2	Y	
1709492-18	AMB	9/22/17	Y	2	183.2	Y	2	Y	
1709492-19	AMB	9/22/17	Y	18	112.34	Y	2	Y	
1709492-20	AMB	9/22/17	Y	18	114.77	Y	2	Y	1709492-20 AMB 9/22/17
1709493-01	DLH	9/25/17	Y	18	88.96	Y	2	Y	
1709493-02	DLH	9/25/17	Y	18	102.02	Y	2	Y	
1709493-03	DLH	9/25/17	Y	18	100.81	Y	2	Y	
1709493-04	DLH	9/25/17	Y	18	63.88	Y	2	Y	63.66g Tail weight 9/25/17 DLH
1709493-05	DLH	9/25/17	Y	18	54.63	Y	2	Y	

AmecFW Maine Lobster Special Project 2017- Lobster Homogenization Logbook

Work Order NUMBER	Tech Initials	Date	Thawed Y/ N	Balance ID	Tail Weight (g)	Tail de-veined Y/ N	Blender Type 1 = Robot Co upe 2 = Magic Bullet 3= Other	% Lipids Subsample taken Y/N	Comments
1709492-06	DH	9/25/17	Y	18	85.13	Y	2	Y	
1709492-07	DH	9/25/17	Y	2	148.89	Y	2	Y	
1709491-08	DM	9/25/17	Y	18	81.97	Y	2	Y	
1709491-09	DM	9/25/17	Y	18	66.20	Y	2	Y	
1709493-15	DH	9/25/17	Y	2	84.39	Y	2	Y	
1709491-10	DM	9/25/17	Y	18	82.77	Y	2	Y	
1709493-16	DH	9/25/17	Y	18	121.11	Y	2	Y	
1709491-11	DM	9/25/17	Y	18	111.88	Y	2	Y	
1709491-12	DM	9/25/17	Y	18	83.17	Y	2	Y	
1709491-13	DM	9/25/17	Y	18	84.42	Y	2	Y	
1709491-14	DM	9/25/17	Y	18	93.95	Y	2	Y	
1709491-15	DM	9/25/17	Y	18	76.73	Y	2	Y	★ Not 493!
1709493-17	DH	9/25/17	Y	18	102.14	Y	2	Y	
1709491-16	DM	9/25/17	Y	18	159.83	Y	2	Y	
1709493-18	DH	9/25/17	Y	18	124.74	Y	2	Y	
1709491-17	DM	9/25/17	Y	18	77.14	Y	2	Y	
1709493-19	DH	9/25/17	Y	18	64.45	Y	2	Y	
1709491-18	DM	9/25/17	Y	18	79.43	Y	2	Y	

DM 9/25/17
1709493
1709493
DM 9/25/17
1709493
1709493
1709493
1709493



Frontier Global Sciences

Total Solids Dataset Cover Page

Dataset ID: TS170926-4
Batch ID: F709441
Work Order(s): 1709493

Analyst: AMB/CLC
Prep. Date: 9/26/2017

Analytical Issues/Explanations:

QUALITY ASSURANCE
PEER-REVIEWED
INITIALS: DM 9/28/17

Preparation Date: Sep 26, 2017

Batch #: 4

Analyst: AMB/CLC

Batch ID: F709441

Work Order(s): 1709493

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes
1	1709493-01	1.0190	6.3070	5.2880	2.0290	1.0100	19.1%	
2	1709493-01MD	1.0320	6.1360	5.1040	1.9820	0.9500	18.6%	2.6%
3	1709493-02	1.0210	6.5410	5.5200	2.0060	0.9850	17.8%	
4	1709493-03	1.0500	6.3270	5.2770	1.9080	0.8580	16.3%	
5	1709493-04	1.0510	6.5090	5.4580	2.0490	0.9980	18.3%	
6	1709493-05	1.0430	6.5480	5.5050	2.0390	0.9960	18.1%	
7	1709493-06	1.0390	6.7180	5.6790	2.0390	1.0000	17.6%	
8	1709493-07	0.9710	6.3400	5.3690	1.8610	0.8900	16.6%	
9	1709493-08	1.0370	6.3420	5.3050	2.0100	0.9730	18.3%	
10	1709493-09	1.0490	6.3390	5.2900	1.8900	0.8410	15.9%	
11	1709493-10	1.0240	6.2910	5.2670	1.9910	0.9670	18.4%	
12	1709493-11	1.0250	6.4640	5.4390	1.9080	0.8830	16.2%	
13	1709493-11MD	1.0390	6.1530	5.1140	1.8630	0.8240	16.1%	0.8%
14	1709493-12	0.9830	6.1250	5.1420	1.8550	0.8720	17.0%	
15	1709493-13	1.0170	6.5240	5.5070	1.9330	0.9160	16.6%	
16	1709493-14	1.0230	6.2010	5.1780	1.9360	0.9130	17.6%	
17	1709493-15	1.0280	6.7000	5.6720	1.9700	0.9420	16.6%	
18	1709493-16	1.0070	6.5600	5.5530	2.0270	1.0200	18.4%	
19	1709493-17	1.0130	6.5180	5.5050	1.9930	0.9800	17.8%	
20	1709493-18	1.0270	6.6840	5.6570	2.2460	1.2190	21.5%	
21	1709493-19	0.9870	6.2224	5.2354	1.9090	0.9220	17.6%	
22	1709493-20	0.9910	6.5530	5.5620	1.9760	0.9850	17.7%	

Preparation Date: Sep 26, 2017

Batch #: 4

Analyst: AMB/CLC

Batch ID: F709441

Work Order(s): 1709493

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes
1	1709493-01	1.0190	6.3070	5.2880	2.0290	1.0100	19.1%	
2	1709493-01MD	1.0320	6.1360	5.1040	1.9820	0.9500	18.6%	2.6%
3	1709493-02	1.0210	6.5410	5.5200	2.0060	0.9850	17.8%	
4	1709493-03	1.0500	6.3270	5.2770	1.9080	0.8580	16.3%	
5	1709493-04	1.0510	6.5090	5.4580	2.0490	0.9980	18.3%	
6	1709493-05	1.0430	6.5480	5.5050	2.0390	0.9960	18.1%	
7	1709493-06	1.0390	6.7180	5.6790	2.0390	1.0000	17.6%	
8	1709493-07	0.9710	6.3400	5.3090	1.8610	0.8900	16.6%	
9	1709493-08	1.0370	6.3420	5.3050	2.0100	0.9730	18.3%	
10	1709493-09	1.0490	6.3390	5.2900	1.8900	0.8410	15.9%	
11	1709493-10	1.0240	6.2910	5.2670	1.9910	0.9670	18.4%	
12	1709493-11	1.0250	6.4640	5.4390	1.9080	0.8830	16.2%	
13	1709493-11MD	1.0390	6.1530	5.1140	1.8630	0.8240	16.1%	0.8%
14	1709493-12	0.9830	6.1250	5.1420	1.8550	0.8720	17.0%	
15	1709493-13	1.0170	6.5240	5.5070	1.9660	0.9490	17.2%	
16	1709493-14	1.0230	6.2010	5.1780	1.9630	0.9400	18.2%	
17	1709493-15	1.0280	6.7000	5.6720	1.9700	0.9420	16.6%	
18	1709493-16	1.0070	6.5600	5.5530	2.0270	1.0200	18.4%	
19	1709493-17	1.0130	6.5180	5.5050	1.9930	0.9800	17.8%	
20	1709493-18	1.0270	6.6840	5.6570	2.2460	1.2190	21.5%	
21	1709493-19	0.9870	6.2224	5.2354	1.9090	0.9220	17.6%	
22	1709493-20	0.9910	6.5530	5.5620	1.9760	0.9850	17.7%	

Remote Lab Total Solids Logbook

Lab Technician(s): AMB / CW Batch: F709441 Date: 9-26-17 Page 1 of 1

Thermometer #: 12040513^{TL} Oven #: DVN-01 Actual temperature: 103.7 (Range 103-105°C)

Balance #¹: 6 Start time: 1920 End time²: 1510^{9:27} Time re-weighed³: 1555

Client(s)/WO#: 1709493

Sample ID	Pan #	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Notes
1709493-01	C1	1.019	6.307	2.029	
F709441-DUP1	C2	1.032	6.136	1.982	Source: 1709493-01
1709493-02	C3	1.021	6.541	2.006	
1709493-03	C4	1.050	6.327	1.908	
1709493-04	C5	1.051	6.509	2.049	
1709493-05	C6	1.043	6.548	2.039	
1709493-06	C7	1.039	6.718	2.039	
1709493-07	C8	0.971	6.340	1.861	
1709493-08	C9	1.037	6.342	2.010	
1709493-09	C10	1.049	6.339	1.890	
1709493-10	C11	1.024	6.291	1.991	
1709493-11	C12	1.025	6.464	1.908	
F709441-DUP2	C13	1.039	6.153	1.863	Source: 1709493-11
1709493-12	C14	0.983	6.125	1.855	
1709493-13	C15	1.017	6.524	1.933	
1709493-14	C16	1.023	6.201	1.936	
1709493-15	C17	1.028	6.700	1.970	
1709493-16	C18	1.007	6.560	2.027	
1709493-17	C19	1.013	6.518	1.993	
1709493-18	C20	1.027	6.684	2.246	
1709493-19	C21	0.987	6.224	1.909	
1709493-20	C22	0.991	6.553	1.976	
AMB 9/26/17					

Comments:

¹The same balance must be used to weight samples before and after ovening.
²Samples must be ovened over 12 hours.

PREPARATION BENCH SHEET

F709441

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-019 Solids Analysis

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	μ l Spike1	Spike2 ID	μ l Spike2	Extraction Comments
F709441-DUP1	Duplicate [1709493-01]	5	5					
F709441-DUP2	Duplicate [1709493-11]	5	5					

Standard ID(s): Description:

Expiration:

PREPARATION BENCH SHEET

F709441

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-019 Solids Analysis

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709493-01	HB-01_17LT019_091317_LOB_01_TA	5	5	QC	-	-	MD/MS/MSD	
1709493-02	HB-01_17LT021_091317_LOB_02_TA	5	5	-	-	-		
1709493-03	HB-01_17LT022_091317_LOB_03_TA	5	5	-	-	-		
1709493-04	HB-01_17LT022_091317_LOB_04_TA	5	5	-	-	-		
1709493-05	HB-01_17LT022_091317_LOB_05_TA	5	5	-	-	-		
1709493-06	HB-01_17LT023_091317_LOB_06_TA	5	5	-	-	-		
1709493-07	HB-01_17LT034_091517_LOB_07_TA	5	5	-	-	-		
1709493-08	HB-01_17LT034_091517_LOB_08_TA	5	5	-	-	-		
1709493-09	HB-01_17LT034_091517_LOB_09_TA	5	5	-	-	-		
1709493-10	HB-01_17LT036_091517_LOB_10_TA	5	5	-	-	-		
1709493-11	HB-01_17LT036_091517_LOB_11_TA	5	5	QC	-	-	MS/MSD	
1709493-12	HB-01_17LT036_091517_LOB_12_TA	5	5	-	-	-		
1709493-13	HB-01_17LT036_091517_LOB_13_TA	5	5	-	-	-		
1709493-14	HB-01_17LT049_091517_LOB_14_TA	5	5	-	-	-		
1709493-15	HB-01_17LT049_091517_LOB_15_TA	5	5	-	-	-		
1709493-16	HB-01_17LT050_091517_LOB_16_TA	5	5	-	-	-		
1709493-17	HB-01_17LT052_091517_LOB_17_TA	5	5	-	-	-		
1709493-18	HB-01_17LT052_091517_LOB_18_TA	5	5	-	-	-		
1709493-19	HB-01_17LT052_091517_LOB_19_TA	5	5	-	-	-		

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709441

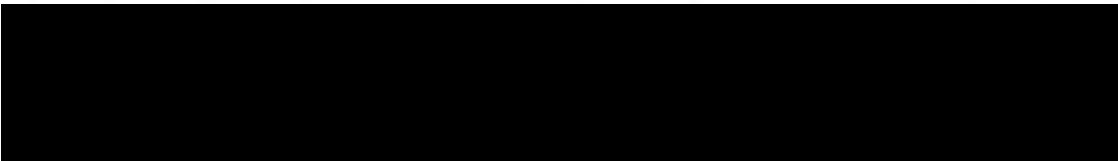
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-019 Solids Analysis

Prepared: 9/26/2017

1709493-20	HB-01_17LT052_091517_LOB_20_1A	5	5	-	-	-		
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Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: AMB/LL

Date: 9/27/17

Reviewer: DM

Date: 9/28/17

WO #: 1709493

Batch #: F709441

Dataset ID: TS170926-4

Reviewer Initials: DM

General Comments/Re-run requirements:

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SQP Date	
<u>CLC</u>	<u>12/20/16</u>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>

Reviewer Initials: DM

1. Total Solids

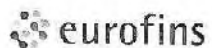
- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

<input type="checkbox"/> Density Only - NA this section			
<input checked="" type="checkbox"/> DONE			<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>

2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
 - (v) Volume (if other than 1 mL): _____ Can the calculated result be reproduced?

<input checked="" type="checkbox"/> Total Solids Only - NA this section			
<input type="checkbox"/> DONE			<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/>



Frontier Global Sciences

THg26003-170927-1

Analysis Datasheet for Total Mercury

Date of Analysis: September 27, 2017

Instrument #: Hg2600-3

LIMS Sequence #: 7128012, 7128013

Analyst: BC

Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	65.54 units	131.08	54.52 units	109.05	103.4 %Rec
SEQ-CAL2	1	1.00 ng/L	116.74 units	116.74	105.72 units	105.72	100.3 %Rec
SEQ-CAL3	1	5.00 ng/L	537.54 units	107.51	526.52 units	105.30	99.9 %Rec
SEQ-CAL4	1	20.00 ng/L	2063.82 units	104.19	2072.80 units	103.64	98.3 %Rec
SEQ-CAL5	1	40.00 ng/L	4147.10 units	103.68	4136.08 units	103.40	98.1 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF Corr. St Dev RF Corr. RSD CF Uncorr. Mean RF
 105.42 +/- 2.26 2.1% RSD 112.64

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	11.02 units	±3.26	0.10 ng/L	±0.03

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	-0.026 ng/L	+0.020
BLK	2	3	-0.054 ng/L	±0.017
BLK	3	1	-0.069 ng/L	
BLK	4	3	0.174 ng/L	±0.547
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: DM 9/28/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	CAL	SEQ-IBL1	1	9/27/2017 8:24:49	76344-1.RAW	8:24:49 AM	9.17							
Hg2600-3	BC	CAL	SEQ-IBL2	1	9/27/2017 8:28:57	76345-1.RAW	8:28:57 AM	9.10							
Hg2600-3	BC	CAL	SEQ-IBL3	1	9/27/2017 8:33:05	76346-1.RAW	8:33:05 AM	14.78							
Hg2600-3	BC	CAL	SEQ-CAL1	1	9/27/2017 8:37:14	76347-1.RAW	8:37:14 AM	65.54							
Hg2600-3	BC	CAL	SEQ-CAL2	1	9/27/2017 8:41:22	76348-1.RAW	8:41:22 AM	116.74							
Hg2600-3	BC	CAL	SEQ-CAL3	1	9/27/2017 8:45:31	76349-1.RAW	8:45:31 AM	537.54							
Hg2600-3	BC	CAL	SEQ-CAL4	1	9/27/2017 8:49:39	76350-1.RAW	8:49:39 AM	2083.62							
Hg2600-3	BC	CAL	SEQ-CAL5	1	9/27/2017 8:53:48	76351-1.RAW	8:53:48 AM	-1117.10							
Hg2600-3	BC	CAL	SEQ-ICV1	1	9/27/2017 8:57:56	76352-1.RAW	8:57:56 AM	550.30							
Hg2600-3	BC	BLK	F709451-BLK1	1	9/27/2017 9:02:05	76353-1.RAW	9:02:05 AM	10.65	1						
Hg2600-3	BC	BLK	F709451-BLK2	1	9/27/2017 9:06:13	76354-1.RAW	9:06:13 AM	6.73	1						
Hg2600-3	BC	BLK	F709451-BLK3	1	9/27/2017 9:10:21	76355-1.RAW	9:10:21 AM	7.44	1						
Hg2600-3	BC	SAM	F709451-BS1	1	9/27/2017 9:14:30	76356-1.RAW	9:14:30 AM	1651.91	1						
Hg2600-3	BC	SAM	F709451-BS2	1	9/27/2017 9:18:38	76357-1.RAW	9:18:38 AM	1657.01	1						
Hg2600-3	BC	SAM	1709608-01	1	9/27/2017 9:22:47	76358-1.RAW	9:22:47 AM	53.50	1						
Hg2600-3	BC	SAM	1709608-02	1	9/27/2017 9:26:55	76359-1.RAW	9:26:55 AM	17.06	1						
Hg2600-3	BC	SAM	1709608-03	1	9/27/2017 9:31:04	76360-1.RAW	9:31:04 AM	247.35	1						
Hg2600-3	BC	SAM	1709608-04	1	9/27/2017 9:35:12	76361-1.RAW	9:35:12 AM	18.62	1						
Hg2600-3	BC	SAM	1709608-05	1	9/27/2017 9:39:20	76362-1.RAW	9:39:20 AM	62.40	1						
Hg2600-3	BC	CAL	SEQ-CCV1	1	9/27/2017 9:43:29	76363-1.RAW	9:43:29 AM	592.75	1						
Hg2600-3	BC	CAL	SEQ-CCR1	1	9/27/2017 9:47:37	76364-1.RAW	9:47:37 AM	9.66	1						
Hg2600-3	BC	SAM	1709608-06	1	9/27/2017 9:51:46	76365-1.RAW	9:51:46 AM	18.29	1						
Hg2600-3	BC	SAM	1709608-07	1	9/27/2017 9:55:54	76366-1.RAW	9:55:54 AM	82.23	1						
Hg2600-3	BC	SAM	1709608-08	1	9/27/2017 10:00:03	76367-1.RAW	10:00:03 AM	30.47	1						
Hg2600-3	BC	SAM	1709608-09	1	9/27/2017 10:04:11	76368-1.RAW	10:04:11 AM	63.71	1						
Hg2600-3	BC	SAM	1709608-10	1	9/27/2017 10:08:20	76369-1.RAW	10:08:20 AM	14.47	1						
Hg2600-3	BC	SAM	1709608-11	1	9/27/2017 10:12:28	76370-1.RAW	10:12:28 AM	126.23	1						
Hg2600-3	BC	SAM	1709608-12	1	9/27/2017 10:16:36	76371-1.RAW	10:16:36 AM	-9.02	1						
Hg2600-3	BC	SAM	1709608-13	1	9/27/2017 10:20:45	76372-1.RAW	10:20:45 AM	80.07	1						
Hg2600-3	BC	SAM	1709608-14	1	9/27/2017 10:24:53	76373-1.RAW	10:24:53 AM	16.13	1						
Hg2600-3	BC	SAM	1709608-15	1	9/27/2017 10:29:02	76374-1.RAW	10:29:02 AM	120.04	1						
Hg2600-3	BC	CAL	SEQ-CCV2	1	9/27/2017 10:33:10	76375-1.RAW	10:33:10 AM	533.84	1						
Hg2600-3	BC	CAL	SEQ-CCB2	1	9/27/2017 10:37:19	76376-1.RAW	10:37:19 AM	11.86	1						
Hg2600-3	BC	SAM	1709608-16	1	9/27/2017 10:41:27	76377-1.RAW	10:41:27 AM	14.11	1						
Hg2600-3	BC	SAM	1709608-17	1	9/27/2017 10:45:36	76378-1.RAW	10:45:36 AM	123.70	1						
Hg2600-3	BC	SAM	1709608-18	1	9/27/2017 10:49:44	76379-1.RAW	10:49:44 AM	31.35	1						
Hg2600-3	BC	SAM	1709608-19	1	9/27/2017 10:53:53	76380-1.RAW	10:53:53 AM	66.54	1						
Hg2600-3	BC	SAM	1709608-20	1	9/27/2017 10:58:01	76381-1.RAW	10:58:01 AM	22.70	1						
Hg2600-3	BC	SAM	F709451-DUP1	1	9/27/2017 11:02:09	76382-1.RAW	11:02:09 AM	250.35	1						
Hg2600-3	BC	SAM	F709451-MS1	1	9/27/2017 11:06:18	76383-1.RAW	11:06:18 AM	778.55	1						
Hg2600-3	BC	SAM	F709451-MS2	1	9/27/2017 11:10:26	76384-1.RAW	11:10:26 AM	778.23	1						
Hg2600-3	BC	SAM	F709451-MS2	1	9/27/2017 11:14:35	76385-1.RAW	11:14:35 AM	655.22	1						
Hg2600-3	BC	CAL	SEQ-CCV3	1	9/27/2017 11:18:43	76386-1.RAW	11:18:43 AM	664.07	1						
Hg2600-3	BC	CAL	SEQ-CCR3	1	9/27/2017 11:22:52	76387-1.RAW	11:22:52 AM	546.85	1						
Hg2600-3	BC	BLK	F709452-BLK1	1	9/27/2017 11:27:00	76388-1.RAW	11:27:00 AM	14.05	1						
Hg2600-3	BC	BLK	F709452-BLK2	1	9/27/2017 11:31:08	76389-1.RAW	11:31:08 AM	7.38	2						
Hg2600-3	BC	BLK	F709452-BLK3	1	9/27/2017 11:35:17	76390-1.RAW	11:35:17 AM	4.11	2						
Hg2600-3	BC	BLK	F709452-BLK4	1	9/27/2017 11:39:25	76391-1.RAW	11:39:25 AM	4.44	2						
Hg2600-3	BC	SAM	F709452-BS1	1	9/27/2017 11:43:34	76392-1.RAW	11:43:34 AM	3.73	3						
Hg2600-3	BC	SAM	F709452-BS2	1	9/27/2017 11:47:42	76393-1.RAW	11:47:42 AM	1652.70	2						
Hg2600-3	BC	SAM	1709608-21	1	9/27/2017 11:51:51	76394-1.RAW	11:51:51 AM	166.89	2						
Hg2600-3	BC	SAM	1709608-22	1	9/27/2017 11:55:59	76395-1.RAW	11:55:59 AM	72.40	2						
Hg2600-3	BC	SAM	1709608-23	1	9/27/2017 12:00:08	76396-1.RAW	12:00:08 PM	28.37	2						
Hg2600-3	BC	SAM	1709608-24	1	9/27/2017 12:04:16	76397-1.RAW	12:04:16 PM	61.33	2						
Hg2600-3	BC	CAL	SEQ-CCV4	1	9/27/2017 12:08:24	76398-1.RAW	12:08:24 PM	16.47	2						
Hg2600-3	BC	CAL	SEQ-CCB4	1	9/27/2017 12:12:33	76399-1.RAW	12:12:33 PM	556.60	1						
Hg2600-3	BC	CAL	SEQ-CCB4	1	9/27/2017 12:16:40	76400-1.RAW	12:16:40 PM	11.40	1						

Instrument		Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
Analyst	Type	LabNumber	Correction?							RESP					
Hg2600-3	BC	SAM	1709608-25	1	9/27/2017 12:20:48	76401-1.RAW	12:20:48 PM	55.03	2		44.0	0.472	0.472	ng/L	
Hg2600-3	BC	SAM	1709608-26	1	9/27/2017 12:24:55	76402-1.RAW	12:24:56 PM	16.50	2		5.5	0.106	0.106	ng/L	
Hg2600-3	BC	SAM	1709608-27	1	9/27/2017 12:29:05	76403-1.RAW	12:29:06 PM	70.47	2		59.4	0.618	0.618	ng/L	
Hg2600-3	BC	SAM	1709608-28	1	9/27/2017 12:33:13	76404-1.RAW	12:33:13 PM	59.35	2		48.3	0.513	0.513	ng/L	
Hg2600-3	BC	SAM	1709608-29	1	9/27/2017 12:37:22	76405-1.RAW	12:37:22 PM	8.18	2		-1.8	0.037	0.037	ng/L	
Hg2600-3	BC	SAM	1709608-30	1	9/27/2017 12:41:30	76406-1.RAW	12:41:30 PM	5.79	2		5.2	0.035	0.035	ng/L	
Hg2600-3	BC	SAM	1709608-31	10	9/27/2017 12:45:38	76407-1.RAW	12:45:38 PM	113.15	3		102.1	0.976	9.756	ng/L	
Hg2600-3	BC	SAM	1709608-32	10	9/27/2017 12:49:47	76408-1.RAW	12:49:47 PM	1217.32	3		1206.3	11.449	114.494	ng/L	
Hg2600-3	BC	SAM	1709670-03	1	9/27/2017 12:53:55	76409-1.RAW	12:53:55 PM	11.31	2		0.3	0.057	0.057	ng/L	
Hg2600-3	BC	SAM	F709452-DUP1	1	9/27/2017 12:58:04	76410-1.RAW	12:58:04 PM	69.81	2		58.8	0.612	0.612	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	9/27/2017 13:02:12	76411-1.RAW	1:02:12 PM	547.3258128			536.3	5.087	5.087	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	9/27/2017 13:06:20	76412-1.RAW	1:06:20 PM	15.54			4.5	0.043	0.043	ng/L	
Hg2600-3	BC	SAM	F709452-MS1	1	9/27/2017 13:10:29	76413-1.RAW	1:10:29 PM	337.14	2		326.1	3.148	3.148	ng/L	
Hg2600-3	BC	SAM	F709452-MSD1	1	9/27/2017 13:14:37	76414-1.RAW	1:14:37 PM	344.35	2		333.3	3.216	3.216	ng/L	
Hg2600-3	BC	SAM	F709452-MS2	1	9/27/2017 13:18:46	76415-1.RAW	1:18:46 PM	350.84	2		339.8	3.278	3.278	ng/L	
Hg2600-3	BC	SAM	F709452-MSD2	1	9/27/2017 13:22:54	76416-1.RAW	1:22:54 PM	355.14	2		344.1	3.318	3.318	ng/L	
Hg2600-3	BC	SAM	1709670-01RE1	10	9/27/2017 13:27:02	76417-1.RAW	1:27:02 PM	112.96	3		101.9	0.974	9.730	ng/L	
Hg2600-3	BC	SAM	1709670-02RE1	10	9/27/2017 13:31:11	76418-1.RAW	1:31:11 PM	1199.88	3		1188.9	11.284	112.839	ng/L	
Hg2600-3	BC	BLK	F709414-BLK1	20	9/27/2017 13:35:19	76419-1.RAW	1:35:19 PM	15.23	4		4.2	0.040	0.709	ng/L	
Hg2600-3	BC	BLK	F709414-BLK2	20	9/27/2017 13:39:28	76420-1.RAW	1:39:28 PM	9.90	4		-1.1	-0.011	-0.212	ng/L	
Hg2600-3	BC	BLK	F709414-BLK3	20	9/27/2017 13:43:36	76421-1.RAW	1:43:36 PM	10.67	4		0.3	-0.003	-0.066	ng/L	
Hg2600-3	BC	SAM	*F709414-BLK4	20	9/27/2017 13:47:45	76422-1.RAW	1:47:45 PM	10.43	4		-0.6	-0.014	-0.285	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	9/27/2017 13:51:53	76423-1.RAW	1:51:53 PM	555.94			544.9	5.169	5.169	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	9/27/2017 13:56:01	76424-1.RAW	1:56:01 PM	14.69			3.7	0.035	0.035	ng/L	
Hg2600-3	BC	SAM	*F709414-BLK5	20	9/27/2017 14:00:10	76425-1.RAW	2:00:10 PM	9.54	4		1.5	-0.023	-0.154	ng/L	
Hg2600-3	BC	SAM	F709414-BS1	20	9/27/2017 14:04:18	76426-1.RAW	2:04:18 PM	538.80	4		527.8	4.998	99.952	ng/L	
Hg2600-3	BC	SAM	F709414-BSD1	20	9/27/2017 14:08:27	76427-1.RAW	2:08:27 PM	572.20	4		561.2	5.314	105.289	ng/L	
Hg2600-3	BC	SAM	F709414-BS2	400	9/27/2017 14:12:35	76428-1.RAW	2:12:35 PM	654.83	4		643.8	6.106	2442.574	ng/L	
Hg2600-3	BC	SAM	1709493-01	400	9/27/2017 14:16:43	76429-1.RAW	2:16:43 PM	266.14	4		255.1	2.420	967.812	ng/L	
Hg2600-3	BC	SAM	1709493-02	400	9/27/2017 14:20:52	76430-1.RAW	2:20:52 PM	374.18	4		363.2	3.444	1377.735	ng/L	
Hg2600-3	BC	SAM	1709493-03	400	9/27/2017 14:25:00	76431-1.RAW	2:25:00 PM	439.00	4		428.0	4.059	1623.677	ng/L	
Hg2600-3	BC	SAM	1709493-04	400	9/27/2017 14:29:09	76432-1.RAW	2:29:09 PM	241.77	4		230.8	2.188	875.357	ng/L	
Hg2600-3	BC	SAM	1709493-05	400	9/27/2017 14:33:17	76433-1.RAW	2:33:17 PM	223.55	4		212.5	2.016	806.231	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	9/27/2017 14:37:25	76434-1.RAW	2:37:25 PM	236.93	4		225.9	2.142	856.983	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	9/27/2017 14:41:34	76435-1.RAW	2:41:34 PM	565.71			554.7	5.262	5.262	ng/L	
Hg2600-3	BC	SAM	1709493-07	100	9/27/2017 14:45:42	76436-1.RAW	2:45:42 PM	13.60			2.6	0.024	0.024	ng/L	
Hg2600-3	BC	SAM	1709493-08	100	9/27/2017 14:49:51	76437-1.RAW	2:49:51 PM	2741.29	4		2730.3	25.896	2589.645	ng/L	
Hg2600-3	BC	SAM	1709493-09	100	9/27/2017 14:53:59	76438-1.RAW	2:53:59 PM	2330.71	4		2319.7	22.002	2200.186	ng/L	
Hg2600-3	BC	SAM	1709493-10	100	9/27/2017 14:58:08	76439-1.RAW	2:58:08 PM	1104.92	4		1093.9	10.375	1037.452	ng/L	
Hg2600-3	BC	SAM	1709493-11	100	9/27/2017 15:02:16	76440-1.RAW	3:02:16 PM	1569.47	4		1558.4	14.781	1478.104	ng/L	
Hg2600-3	BC	SAM	1709493-12	100	9/27/2017 15:06:24	76441-1.RAW	3:06:24 PM	1800.68	4		1789.7	16.974	1697.425	ng/L	
Hg2600-3	BC	SAM	1709493-13	100	9/27/2017 15:10:33	76442-1.RAW	3:10:33 PM	1140.10	4		1129.1	10.708	1070.820	ng/L	
Hg2600-3	BC	SAM	1709493-14	100	9/27/2017 15:14:41	76443-1.RAW	3:14:41 PM	1217.60	4		1206.6	11.443	1144.341	ng/L	
Hg2600-3	BC	SAM	1709493-15	100	9/27/2017 15:18:50	76444-1.RAW	3:18:50 PM	1500.32	4		1480.3	14.125	1412.516	ng/L	
Hg2600-3	BC	SAM	1709493-16	100	9/27/2017 15:22:58	76445-1.RAW	3:22:58 PM	758.10	4		747.1	7.085	708.472	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	9/27/2017 15:27:07	76446-1.RAW	3:27:07 PM	1849.89	4		1838.9	17.441	1744.099	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8	1	9/27/2017 15:31:15	76447-1.RAW	3:31:15 PM	567.32			556.3	5.277	5.277	ng/L	
Hg2600-3	BC	SAM	1709493-17	100	9/27/2017 15:35:23	76448-1.RAW	3:35:23 PM	17.86			6.8	0.065	0.065	ng/L	
Hg2600-3	BC	SAM	1709493-18	100	9/27/2017 15:39:32	76449-1.RAW	3:39:32 PM	876.82	4		865.8	8.211	821.083	ng/L	
Hg2600-3	BC	SAM	1709493-19	100	9/27/2017 15:43:40	76450-1.RAW	3:43:40 PM	4124.70	4		4113.7	39.019	3901.887	ng/L	
Hg2600-3	BC	SAM	1709493-20	100	9/27/2017 15:47:49	76451-1.RAW	3:47:49 PM	1355.59	4		1344.6	12.752	1275.226	ng/L	
Hg2600-3	BC	SAM	F709414-DUP1	400	9/27/2017 15:51:57	76452-1.RAW	3:51:57 PM	1544.42	4		1533.4	14.543	1454.347	ng/L	
Hg2600-3	BC	SAM	F709414-MS1	400	9/27/2017 15:56:05	76453-1.RAW	3:56:05 PM	268.61	4		257.6	2.443	977.181	ng/L	
Hg2600-3	BC	SAM	F709414-MSD1	400	9/27/2017 16:00:14	76454-1.RAW	4:00:14 PM	1578.75	4		1567.7	14.870	5948.144	ng/L	
Hg2600-3	BC	SAM	F709414-MS2	400	9/27/2017 16:04:23	76455-1.RAW	4:04:23 PM	1555.18	4		1544.2	14.647	5858.713	ng/L	
Hg2600-3	BC	SAM	F709414-MSD2	400	9/27/2017 16:08:31	76456-1.RAW	4:08:31 PM	1797.79	4		1786.8	16.988	6779.240	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV9	1	9/27/2017 16:12:39	76457-1.RAW	4:12:39 PM	1774.63	4		1763.6	16.728	6691.353	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB9	1	9/27/2017 16:16:48	76458-1.RAW	4:16:48 PM	581.17			570.1	5.408	5.408	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB9	1	9/27/2017 16:20:56	76459-1.RAW	4:20:56 PM	19.50			8.5	0.080	0.080	ng/L	

TotalMercury EPA1631
 Operat/BC Blanks: 11.019 Calib Eqn: Conc = (Area-11.01 Run Date: 9/27/2017 Blank SD: 3.261089169
 Worksl: THg260X CalibFa 105.42 Status: QC Warnings:6/QC F Run Time: 8:02:31 Blank RSD%: 29.59468811
 Method ##### R: 1 R2: 1 CF SD: 2.263348157
 Descrip THg26003-170927-1 CF RSD%: 2.146914351

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ctf)	Flags	RunCount
Clean				0.00	1.70					76339-1.RAW	8:05:23	179.26	Clean	OK	1
CLEAN										76340-1.RAW	8:08:15	0.00	Clean	NP	1
WS				11.02	0.00					76341-1.RAW	8:12:23	2.60	Sample	OK	1
WS				11.02	0.00					76342-1.RAW	8:16:32	0.79	Sample	OK	1
WS										76343-1.RAW	8:20:40	0.00	Sample	NP	1
SEQ-IBL1	A1		1	0.00	0.09					76344-1.RAW	8:24:49	9.17	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.09					76345-1.RAW	8:28:57	9.10	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.14					76346-1.RAW	8:33:05	14.78	Sample	OK	1
SEQ-CAL1	A4		1	11.02	0.52			103.44		76347-1.RAW	8:37:14	65.54	Sample	OK	1
SEQ-CAL2	A5		1	11.02	1.00			100.29		76348-1.RAW	8:41:22	116.74	Sample	OK	1
SEQ-CAL3	A6		1	11.02	4.99			99.89		76349-1.RAW	8:45:31	537.54	Sample	OK	1
SEQ-CAL4	A7		1	11.02	19.66			98.31		76350-1.RAW	8:49:39	2083.82	Sample	OK	1
SEQ-CAL5	A8		1	11.02	39.23			98.08		76351-1.RAW	8:53:48	4147.10	Sample	OK	1
SEQ-ICV1	A9		1	11.02	5.12			102.32		76352-1.RAW	8:57:56	550.38	Sample	OK	1
F709451-BLK1	A10		1	11.02	0.00					76353-1.RAW	9:02:05	10.65	Sample	OK	1
F709451-BLK2	A11		1	11.02	0.00					76354-1.RAW	9:06:13	6.73	Sample	OK	1
F709451-BLK3	A12		1	11.02	0.00					76355-1.RAW	9:10:21	7.44	Sample	OK	1
F709451-BS1	B1		1	11.02	15.56					76356-1.RAW	9:14:30	1651.91	Sample	OK	1
F709451-BSD1	B2		1	11.02	15.61					76357-1.RAW	9:18:38	1657.01	Sample	OK	1
1709608-01	B3		1	11.02	0.40					76358-1.RAW	9:22:47	53.50	Sample	OK	1
1709608-02	B4		1	11.02	0.06					76359-1.RAW	9:26:55	17.06	Sample	OK	1
1709608-03	B5		1	11.02	2.24					76360-1.RAW	9:31:04	247.35	Sample	OK	1
1709608-04	B6		1	11.02	0.07					76361-1.RAW	9:35:12	18.82	Sample	OK	1
1709608-05	B7		1	11.02	0.49					76362-1.RAW	9:39:20	62.40	Sample	OK	1
SEQ-CCV1	B8		1	11.02	4.95			98.98		76363-1.RAW	9:43:29	532.75	Sample	OK	1
SEQ-CCB1	B9		1	11.02	0.00			0.00		76364-1.RAW	9:47:37	9.66	Sample	OK	1
1709608-06	B10		1	11.02	0.07					76365-1.RAW	9:51:46	18.29	Sample	OK	1
1709608-07	B11		1	11.02	0.68					76366-1.RAW	9:55:54	82.23	Sample	OK	1
1709608-08	B12		1	11.02	0.18					76367-1.RAW	10:00:03	30.47	Sample	OK	1
1709608-09	C1		1	11.02	0.50					76368-1.RAW	10:04:11	63.71	Sample	OK	1
1709608-10	C2		1	11.02	0.03					76369-1.RAW	10:08:20	14.47	Sample	OK	1
1709608-11	C3		1	11.02	1.12					76370-1.RAW	10:12:28	129.23	Sample	OK	1
1709608-12	C4		1	11.02	0.08					76371-1.RAW	10:16:36	19.02	Sample	OK	1
1709608-13	C5		1	11.02	0.47					76372-1.RAW	10:20:45	60.07	Sample	OK	1
1709608-14	C6		1	11.02	0.05					76373-1.RAW	10:24:53	16.15	Sample	OK	1
1709608-15	C7		1	11.02	1.03					76374-1.RAW	10:29:02	120.04	Sample	OK	1
SEQ-CCV2	C8		1	11.02	4.96			99.18		76375-1.RAW	10:33:10	533.84	Sample	OK	1
SEQ-CCB2	C9		1	11.02	0.01			0.00		76376-1.RAW	10:37:19	11.80	Sample	OK	1
1709608-16	C10		1	11.02	0.03					76377-1.RAW	10:41:27	14.11	Sample	OK	1
1709608-17	C11		1	11.02	1.07					76378-1.RAW	10:45:36	123.70	Sample	OK	1
1709608-18	C12		1	11.02	0.19					76379-1.RAW	10:49:44	31.35	Sample	OK	1
1709608-19	D1		1	11.02	0.56					76380-1.RAW	10:53:53	69.64	Sample	OK	1
1709608-20	D2		1	11.02	0.11					76381-1.RAW	10:58:01	22.70	Sample	OK	1

F709451-DUP1	D3	1	11.02	2.27		76382-1.RAW	11:02:09	250.36	Sample	OK	1
F709451-MS1	D4	1	11.02	7.28	222.57	76383-1.RAW	11:06:18	778.35	Sample	OK	1
F709451-MSD1	D5	1	11.02	7.28		76384-1.RAW	11:10:26	778.23	Sample	OK	1
F709451-MS2	D6	1	11.02	6.11	65.87	76385-1.RAW	11:14:35	655.22	Sample	OK	1
F709451-MSD2	D7	1	11.02	6.19		76386-1.RAW	11:18:43	664.07	Sample	OK	1
SEQ-CCV3	D8	1	11.02	5.08	101.65	76387-1.RAW	11:22:52	546.85	Sample	OK	1
SEQ-CCB3	D9	1	11.02	0.03	0.00	76388-1.RAW	11:27:00	14.05	Sample	OK	1
F709452-BLK1	D10	1	11.02	0.00		76389-1.RAW	11:31:08	7.38	Sample	OK	1
F709452-BLK2	D11	1	11.02	0.00		76390-1.RAW	11:35:17	4.11	Sample	OK	1
F709452-BLK3	D12	1	11.02	0.00		76391-1.RAW	11:39:25	4.44	Sample	OK	1
F709452-BLK4	A1	1	11.02	0.00		76392-1.RAW	11:43:34	3.73	Sample	OK	1
F709452-BS1	A2	1	11.02	15.57		76393-1.RAW	11:47:42	1652.76	Sample	OK	1
F709452-BSD1	A3	1	11.02	15.66		76394-1.RAW	11:51:51	1661.69	Sample	FB	1
1709608-21	A4	1	11.02	0.58		76395-1.RAW	11:55:59	72.40	Sample	OK	1
1709608-22	A5	1	11.02	0.15		76396-1.RAW	12:00:08	26.37	Sample	OK	1
1709608-23	A6	1	11.02	0.48		76397-1.RAW	12:04:16	61.33	Sample	OK	1
1709608-24	A7	1	11.02	0.05		76398-1.RAW	12:08:24	16.47	Sample	OK	1
SEQ-CCV4	A8	1	11.02	5.18	103.50	76399-1.RAW	12:12:33	556.60	Sample	OK	1
SEQ-CCB4	A9	1	11.02	0.00	0.00	76400-1.RAW	12:16:40	11.40	Sample	OK	1
1709608-25	A10	1	11.02	0.42		76401-1.RAW	12:20:48	55.03	Sample	OK	1
1709608-26	A11	1	11.02	0.05		76402-1.RAW	12:24:56	18.50	Sample	OK	1
1709608-27	A12	1	11.02	0.56		76403-1.RAW	12:29:05	70.47	Sample	OK	1
1709608-28	B1	1	11.02	0.46		76404-1.RAW	12:33:13	59.35	Sample	OK	1
1709608-29	B2	1	11.02	0.00		76405-1.RAW	12:37:22	9.18	Sample	OK	1
1709608-30	B3	1	11.02	0.00		76406-1.RAW	12:41:30	5.79	Sample	OK	1
1709670-01	B4	10	11.02	9.69		76407-1.RAW	12:45:38	113.15	Sample	OK	1
1709670-02	B5	10	11.02	114.43		76408-1.RAW	12:49:47	1217.33	Sample	OK	1
1709670-03	B6	1	11.02	0.00		76409-1.RAW	12:53:55	11.31	Sample	OK	1
F709452-DUP1	B7	1	11.02	0.56		76410-1.RAW	12:58:04	69.81	Sample	OK	1
SEQ-CCV5	B8	1	11.02	5.09	101.74	76411-1.RAW	13:02:12	547.33	Sample	OK	1
SEQ-CCB5	B9	1	11.02	0.04	0.00	76412-1.RAW	13:06:20	15.54	Sample	OK	1
F709452-MS1	B10	1	11.02	3.09	296.62	76413-1.RAW	13:10:29	337.14	Sample	OK	1
F709452-MSD1	B11	1	11.02	3.16		76414-1.RAW	13:14:37	344.35	Sample	OK	1
F709452-MS2	B12	1	11.02	3.22	62.45	76415-1.RAW	13:18:46	350.84	Sample	OK	1
F709452-MSD2	C1	1	11.02	3.26		76416-1.RAW	13:22:54	355.14	Sample	OK	1
1709670-01RE1	C2	10	11.02	9.67		76417-1.RAW	13:27:02	112.96	Sample	OK	1
1709670-02RE1	C3	10	11.02	112.77		76418-1.RAW	13:31:11	1199.88	Sample	OK	1
F709414-BLK1	C4	20	11.02	0.80		76419-1.RAW	13:35:19	15.23	Sample	OK	1
F709414-BLK2	C5	20	11.02	0.00		76420-1.RAW	13:39:28	9.90	Sample	OK	1
F709414-BLK3	C6	20	11.02	0.00		76421-1.RAW	13:43:36	10.67	Sample	OK	1
F709414-BLK4	C7	20	11.02	0.00		76422-1.RAW	13:47:45	10.43	Sample	OK	1
SEQ-CCV6	C8	1	11.02	5.17	103.38	76423-1.RAW	13:51:53	555.94	Sample	OK	1
SEQ-CCB6	C9	1	11.02	0.03	0.00	76424-1.RAW	13:56:01	14.69	Sample	OK	1
F709414-BLK5	C10	20	11.02	0.00		76425-1.RAW	14:00:10	9.54	Sample	OK	1
F709414-BS1	C11	20	11.02	100.13		76426-1.RAW	14:04:18	538.80	Sample	OK	1
F709414-BSD1	C12	20	11.02	106.46		76427-1.RAW	14:08:27	572.20	Sample	OK	1
F709414-BS2	D1	400	11.02	2442.75		76428-1.RAW	14:12:35	654.83	Sample	OK	1
1709493-01	D2	400	11.02	967.99		76429-1.RAW	14:16:43	288.14	Sample	OK	1

1709493-02	D3	400	11.02	1377.91		76430-1.RAW	14:20:52	374.18	Sample	OK	1
1709493-03	D4	400	11.02	1623.85		76431-1.RAW	14:25:00	439.00	Sample	OK	1
1709493-04	D5	400	11.02	875.53		76432-1.RAW	14:29:09	241.77	Sample	OK	1
1709493-05	D6	400	11.02	806.41		76433-1.RAW	14:33:17	223.55	Sample	OK	1
1709493-06	D7	400	11.02	857.16		76434-1.RAW	14:37:25	236.93	Sample	OK	1
SEQ-CCV7	D8	1	11.02	5.26	105.23	76435-1.RAW	14:41:34	565.71	Sample	OK	1
SEQ-CCB7	D9	1	11.02	0.02	0.00	76436-1.RAW	14:45:42	13.60	Sample	OK	1
1709493-07	D10	100	11.02	2589.82		76437-1.RAW	14:49:51	2741.29	Sample	OK	1
1709493-08	D11	100	11.02	2200.36		76438-1.RAW	14:53:59	2330.71	Sample	OK	1
1709493-09	D12	100	11.02	1037.63		76439-1.RAW	14:58:08	1104.92	Sample	OK	1
1709493-10	A1	100	11.02	1478.28		76440-1.RAW	15:02:16	1569.47	Sample	OK	1
1709493-11	A2	100	11.02	1697.60		76441-1.RAW	15:06:24	1800.68	Sample	OK	1
1709493-12	A3	100	11.02	1070.99		76442-1.RAW	15:10:33	1140.10	Sample	OK	1
1709493-13	A4	100	11.02	1144.51		76443-1.RAW	15:14:41	1217.60	Sample	OK	1
1709493-14	A5	100	11.02	1412.69		76444-1.RAW	15:18:50	1500.32	Sample	OK	1
1709493-15	A6	100	11.02	708.65		76445-1.RAW	15:22:58	758.10	Sample	OK	1
1709493-16	A7	100	11.02	1744.27		76446-1.RAW	15:27:07	1849.89	Sample	OK	1
SEQ-CCV8	A8	1	11.02	5.28	105.54	76447-1.RAW	15:31:15	567.32	Sample	OK	1
SEQ-CCB8	A9	1	11.02	0.06	0.00	76448-1.RAW	15:35:23	17.86	Sample	OK	1
1709493-17	A10	100	11.02	821.26		76449-1.RAW	15:39:32	876.82	Sample	OK	1
1709493-18	A11	100	11.02	3902.06		76450-1.RAW	15:43:40	4124.70	Sample	FB	1
1709493-19	A12	100	11.02	1275.40		76451-1.RAW	15:47:49	1355.59	Sample	OK	1
1709493-20	B1	100	11.02	1454.52		76452-1.RAW	15:51:57	1544.42	Sample	OK	1
F709414-DUP1	B2	400	11.02	977.35		76453-1.RAW	15:56:05	268.61	Sample	OK	1
F709414-MS1	B3	400	11.02	5948.32	607.99	76454-1.RAW	16:00:14	1578.75	Sample	OK	1
F709414-MSD1	B4	400	11.02	5858.89		76455-1.RAW	16:04:23	1555.18	Sample	OK	1
F709414-MS2	B5	400	11.02	6779.41	115.67	76456-1.RAW	16:08:31	1797.79	Sample	OK	1
F709414-MSD2	B6	400	11.02	6691.53		76457-1.RAW	16:12:39	1774.63	Sample	OK	1
SEQ-CCV9	B7	1	11.02	5.41	108.16	76458-1.RAW	16:16:48	581.17	Sample	OK	1
SEQ-CCB9	B8	1	11.02	0.08	0.00	76459-1.RAW	16:20:56	19.50	Sample	OK	1
SnCl2 1705778	B9	1	11.02	0.00		76460-1.RAW	16:25:04	8.04	Sample	OK	1
CLEAN						76461-1.RAW	16:27:56	0.00	Clean	NP	1
WS			11.02	0.00		76462-1.RAW	16:32:04	5.26	Sample	OK	1
WS						76463-1.RAW	16:36:13	0.00	Sample	NP	1

Failing Data Report - 7I28013

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Becis 9/28/17
 Analyst Reviewed By Date

Don Maxem 9/28/17
 Peer Reviewed By Date

ANALYSIS SEQUENCE

7128012



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 9/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7128012-IBL1	QC	1			
7128012-IBL2	QC	2			
7128012-IBL3	QC	3			
7128012-CAL1	QC	4	1704505		
7128012-CAL2	QC	5	1704506		
7128012-CAL3	QC	6	1704507		
7128012-CAL4	QC	7	1704508		
7128012-CAL5	QC	8	1704509		
7128012-ICV1	QC	9	1705628		
F709451-BLK1	QC	10			
F709451-BLK2	QC	11			
F709451-BLK3	QC	12			
F709451-BS1	QC	13			
F709451-BSD1	QC	14			
1709608-01	Hg-CVAFS-W-1631	15			Scan all data for level IV report.
1709608-02	Hg-CVAFS-W-1631	16			Scan all data for level IV report.
1709608-03	Hg-CVAFS-W-1631	17			Scan all data for level IV report.
1709608-04	Hg-CVAFS-W-1631	18			Scan all data for level IV report.
1709608-05	Hg-CVAFS-W-1631	19			Scan all data for level IV report.
7128012-CCV1	QC	20	1705628		
7128012-CCB1	QC	21			
1709608-06	Hg-CVAFS-W-1631	22			Scan all data for level IV report.
1709608-07	Hg-CVAFS-W-1631	23			Scan all data for level IV report.
1709608-08	Hg-CVAFS-W-1631	24			Scan all data for level IV report.
1709608-09	Hg-CVAFS-W-1631	25			Scan all data for level IV report.
1709608-10	Hg-CVAFS-W-1631	26			Scan all data for level IV report.
1709608-11	Hg-CVAFS-W-1631	27			Scan all data for level IV report.
1709608-12	Hg-CVAFS-W-1631	28			Scan all data for level IV report.
1709608-13	Hg-CVAFS-W-1631	29			Scan all data for level IV report.
1709608-14	Hg-CVAFS-W-1631	30			Scan all data for level IV report.
1709608-15	Hg-CVAFS-W-1631	31			Scan all data for level IV report.
7128012-CCV2	QC	32	1705628		
7128012-CCB2	QC	33			
1709608-16	Hg-CVAFS-W-1631	34			Scan all data for level IV report.
1709608-17	Hg-CVAFS-W-1631	35			Scan all data for level IV report.

Due Date: 10/6/2017

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Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 9/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709608-18	Hg-CVAFS-W-1631	36			Scan all data for level IV report
1709608-19	Hg-CVAFS-W-1631	37			Scan all data for level IV report
1709608-20	Hg-CVAFS-W-1631	38			Scan all data for level IV report
F709451-DUP1	QC	39			
F709451-MS1	QC	40			
F709451-MSD1	QC	41			
F709451-MS2	QC	42			
F709451-MSD2	QC	43			
7I28012-CCV3	QC	44	1705628		
7I28012-CCB3	QC	45			
F709452-BLK1	QC	46			
F709452-BLK2	QC	47			
F709452-BLK3	QC	48			
F709452-BLK4	QC	49			
F709452-BS1	QC	50			
F709452-BSD1	QC	51			
1709608-21	Hg-CVAFS-W-1631	52			Scan all data for level IV report
1709608-22	Hg-CVAFS-W-1631	53			Scan all data for level IV report
1709608-23	Hg-CVAFS-W-1631	54			Scan all data for level IV report
1709608-24	Hg-CVAFS-W-1631	55			Scan all data for level IV report
7I28012-CCV4	QC	56	1705628		
7I28012-CCB4	QC	57			
1709608-25	Hg-CVAFS-W-1631	58			Scan all data for level IV report
1709608-26	Hg-CVAFS-W-1631	59			Scan all data for level IV report
1709608-27	Hg-CVAFS-W-1631	60			Scan all data for level IV report
1709608-28	Hg-CVAFS-W-1631	61			Scan all data for level IV report
1709608-29	Hg-CVAFS-W-1631	62			Scan all data for level IV report
1709608-30	Hg-CVAFS-W-1631	63			Scan all data for level IV report
1709670-01	Hg-CVAFS-W-1631	64			
1709670-02	Hg-CVAFS-W-1631	65			
1709670-03	Hg-CVAFS-W-1631	66			
F709452-DUP1	QC	67			
7I28012-CCV5	QC	68	1705628		
7I28012-CCB5	QC	69			
F709452-MS1	QC	70			

Due Date: 10/6/2017

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 9/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F709452-MSD1	QC	71			
F709452-MS2	QC	72			
F709452-MSD2	QC	73			
1709670-01RE1	Hg-CVAFS-W-1631	74			Added 9/28/2017 by BC
1709670-02RE1	Hg-CVAFS-W-1631	75			Added 9/28/2017 by BC
7128012-CCV6	QC	76	1705628		
7128012-CCB6	QC	77			

Devin 9/28/17
Samples Loaded By Date

Devin 9/28/17
Data Processed By Date

1024-2
9/29/17

ANALYSIS SEQUENCE

7128013



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 9/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7128013-IBL1	QC	1			
7128013-IBL2	QC	2			
7128013-IBL3	QC	3			
7128013-CAL1	QC	4	1704505		
7128013-CAL2	QC	5	1704506		
7128013-CAL3	QC	6	1704507		
7128013-CAL4	QC	7	1704508		
7128013-CAL5	QC	8	1704509		
7128013-ICV1	QC	9	1705628		
7128013-CCV1	QC	10	1705628		
7128013-CCB1	QC	11			
7128013-CCV2	QC	12	1705628		
7128013-CCB2	QC	13			
7128013-CCV3	QC	14	1705628		
7128013-CCB3	QC	15			
7128013-CCV4	QC	16	1705628		
7128013-CCB4	QC	17			
7128013-CCV5	QC	18	1705628		
7128013-CCB5	QC	19			
F709414-BLK1	QC	20			
F709414-BLK2	QC	21			
F709414-BLK3	QC	22			
F709414-BLK4	QC	23			
7128013-CCV6	QC	24	1705628		
7128013-CCB6	QC	25			
F709414-BLK5	QC	26			
F709414-BS1	QC	27			
F709414-BSD1	QC	28			
F709414-BS2	QC	29			
1709493-01	Hg-CVAFS-T-7030	30			
1709493-02	Hg-CVAFS-T-7030	31			
1709493-03	Hg-CVAFS-T-7030	32			
1709493-04	Hg-CVAFS-T-7030	33			
1709493-05	Hg-CVAFS-T-7030	34			
1709493-06	Hg-CVAFS-T-7030	35			

Due Date: 10/17/2017

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Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 9/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7128013-CCV7	QC	36	1705628		
7128013-CCB7	QC	37			
1709493-07	Hg-CVAFS-T-7030	38			
1709493-08	Hg-CVAFS-T-7030	39			
1709493-09	Hg-CVAFS-T-7030	40			
1709493-10	Hg-CVAFS-T-7030	41			
1709493-11	Hg-CVAFS-T-7030	42			
1709493-12	Hg-CVAFS-T-7030	43			
1709493-13	Hg-CVAFS-T-7030	44			
1709493-14	Hg-CVAFS-T-7030	45			
1709493-15	Hg-CVAFS-T-7030	46			
1709493-16	Hg-CVAFS-T-7030	47			
7128013-CCV8	QC	48	1705628		
7128013-CCB8	QC	49			
1709493-17	Hg-CVAFS-T-7030	50			
1709493-18	Hg-CVAFS-T-7030	51			
1709493-19	Hg-CVAFS-T-7030	52			
1709493-20	Hg-CVAFS-T-7030	53			
F709414-DUP1	QC	54			
F709414-MS1	QC	55			
F709414-MSD1	QC	56			
F709414-MS2	QC	57			
F709414-MSD2	QC	58			
7128013-CCV9	QC	59	1705628		
7128013-CCB9	QC	60			

 9/28/17
Samples Loaded By Date

 9/28/17
Data Processed By Date

10201
9/27/17

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709451

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/27/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709451-BLK1	Blank	100	101					Source: 1709608-31
F709451-BLK2	Blank	100	101					Source: 1709608-31
F709451-BLK3	Blank	100	101					Source: 1709608-31
F709451-BS1	LCS	50	50.5	1705054	100			
F709451-BSD1	LCS Dup	50	50.5	1705054	100			
F709451-DUP1	Duplicate [1709608-03]	100	101					
F709451-MS1	Matrix Spike [1709608-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F709451-MS2	Matrix Spike [1709608-11]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F709451-MSD1	Matrix Spike Dup [1709608-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F709451-MSD2	Matrix Spike Dup [1709608-11]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1705182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705054	Nist 1641D 200X	21-Aug-18 00:00	1704516	THg Washstation (0.5% BrCl)	
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1705552	3% SnCl2 THg reductant	05-Mar-18 00:00

PREPARATION BENCH SHEET

F709451

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/27/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709608-01	OL-2761-01	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-02	OL-2761-01 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-03	OL-2761-02	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-04	OL-2761-02 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-05	OL-2761-03	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-06	OL-2761-03 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-07	OL-2761-04	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-08	OL-2761-04 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-09	OL-2761-05	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-10	OL-2761-05 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-11	OL-2761-06	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-12	OL-2761-06 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-13	OL-2761-07	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-14	OL-2761-07 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-15	OL-2761-08	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-16	OL-2761-08 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-17	OL-2761-09	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-18	OL-2761-09 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-19	OL-2761-10	100	101	-	-	-	2 Preservation blanks created due to >2	

Due Date: 10/6/2017

PREPARATION BENCH SHEET

F709451

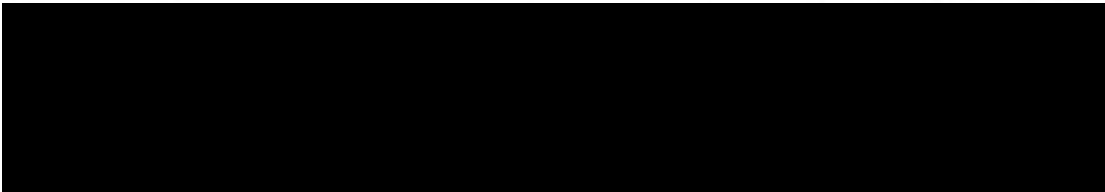
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/27/2017

1709608-20	OL-2761-10 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	
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PREPARATION BENCH SHEET

F709452

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/27/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709452-BLK1	Blank	100	101					Source:1709608-32
F709452-BLK2	Blank	100	101					Source:1709608-32
F709452-BLK3	Blank	100	101					Source:1709608-32
F709452-BLK4	Blank	100	102					
F709452-BS1	LCS	50	50.5	1705054	100			
F709452-BSD1	LCS Dup	50	50.5	1705054	100			
F709452-DUP1	Duplicate [1709608-27]	100	101					
F709452-MS1	Matrix Spike [1709608-21]	49.50495	50	1704483	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F709452-MS2	Matrix Spike [1709608-27]	49.50495	50	1704483	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F709452-MSD1	Matrix Spike Dup [1709608-21]	49.50495	50	1704483	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F709452-MSD2	Matrix Spike Dup [1709608-27]	49.50495	50	1704483	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

Standard ID(s):
1704483
1705054

Description:
THg 1ng/mL Calibration Standard
Nist 1641D 200X

Expiration:
24-Oct-17 00:00
21-Aug-18 00:00

Reagent ID(s):
1703182
1704515
1704516
1704517
1705552

Description:
25% Hydroxylamine-HCl working solution
0.2 N BRCL JULY 2017
THg Washstation (0.5% BrCl)
THg Dilute 1% BrCl
3% SnCl2 THg reductant

Expiration:
24-Nov-17 00:00
22-Jan-18 00:00
24-Nov-17 00:00
18-Dec-17 00:00
05-Mar-18 00:00

PREPARATION BENCH SHEET

F709452

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/27/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709608-21	OL-2761-11	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-22	OL-2761-11 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-23	OL-2761-12	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-24	OL-2761-12 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-25	OL-2761-13	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-26	OL-2761-13 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-27	OL-2761-FB1	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-28	OL-2761-FB1 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-29	OL-2761-TB1	100	101	-	-	-	2 Preservation blanks created due to >2	
1709608-30	Laboratory Filter Blank	100	101	-	-	-	Scan all data for level IV report	
1709670-01	Big Cove Influent	100	102	-	-	-		
1709670-01RE1	Big Cove Influent	100	102	-	-	-	Added 9/28/2017 by BC	Added 9/28/2017 by BC
1709670-02	Big Cove Duplicate	100	102	-	-	-		
1709670-02RE1	Big Cove Duplicate	100	102	-	-	-	Added 9/28/2017 by BC	Added 9/28/2017 by BC
1709670-03	Big Cove Trip Blank	100	101	-	-	-		

PREPARATION BENCH SHEET

F709414

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709414-BLK1	Blank	0.5	40					
F709414-BLK2	Blank	0.5	40					
F709414-BLK3	Blank	0.5	40					
F709414-BLK4	Pre homogen blank	0.546	40					
F709414-BLK5	Post homogen blank	0.512	40					
F709414-BS1	LCS	0.5	40	1704421	40			
F709414-BS2	DORM4	0.272	40	1703305	272			
F709414-BSD1	LCS Dup	0.5	40	1704421	40			
F709414-DUP1	Duplicate [1709493-01]	0.53	40					
F709414-MS1	Matrix Spike [1709493-01]	0.546	40	1705554	200			
F709414-MS2	Matrix Spike [1709493-11]	0.561	40	1705554	200			
F709414-MSD1	Matrix Spike Dup [1709493-01]	0.525	40	1705554	200			
F709414-MSD2	Matrix Spike Dup [1709493-11]	0.54	40	1705554	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/ml, Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/ml, Secondary Spiking Standard	18-Mar-18 00:00	1704516	THg Washstation (0.5% BrCl)	
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1705552	3% SnCl2 THg reductant	05-Mar-18 00:00
			1705780	70/30 Digestion Acid	25-Mar-18 00:00

PREPARATION BENCH SHEET

F709414

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (ml.)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709493-01	HB-01_17LT019_091317_LOB_01_TA	0.522	40	QC	-	-	MD/MS/MSD	
1709493-02	HB-01_17LT021_091317_LOB_02_TA	0.552	40	-	-	-		
1709493-03	HB-01_17LT022_091317_LOB_03_TA	0.523	40	-	-	-		
1709493-04	HB-01_17LT022_091317_LOB_04_TA	0.528	40	-	-	-		
1709493-05	HB-01_17LT022_091317_LOB_05_TA	0.514	40	-	-	-		
1709493-06	HB-01_17LT023_091317_LOB_06_TA	0.529	40	-	-	-		
1709493-07	HB-01_17LT034_091517_LOB_07_TA	0.562	40	-	-	-		
1709493-08	HB-01_17LT034_091517_LOB_08_TA	0.592	40	-	-	-		
1709493-09	HB-01_17LT034_091517_LOB_09_TA	0.501	40	-	-	-		
1709493-10	HB-01_17LT036_091517_LOB_10_TA	0.523	40	-	-	-		
1709493-11	HB-01_17LT036_091517_LOB_11_TA	0.552	40	QC	-	-	MS/MSD	
1709493-12	HB-01_17LT036_091517_LOB_12_TA	0.514	40	-	-	-		
1709493-13	HB-01_17LT036_091517_LOB_13_TA	0.535	40	-	-	-		
1709493-14	HB-01_17LT049_091517_LOB_14_TA	0.525	40	-	-	-		
1709493-15	HB-01_17LT049_091517_LOB_15_TA	0.563	40	-	-	-		
1709493-16	HB-01_17LT050_091517_LOB_16_TA	0.506	40	-	-	-		
1709493-17	HB-01_17LT052_091517_LOB_17_TA	0.553	40	-	-	-		
1709493-18	HB-01_17LT052_091517_LOB_18_TA	0.591	40	-	-	-		
1709493-19	HB-01_17LT052_091517_LOB_19_TA	0.594	40	-	-	-		

9/28/17 DM

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709414

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

1709493-20	HB-01_17LT052_091517_LOB_20_TA	0.585	40	-	-	-		
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PREPARATION BENCH SHEET

F709414

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709414-BLK1	Blank	0.5	40					
F709414-BLK2	Blank	0.5	40					
F709414-BLK3	Blank	0.5	40					
F709414-BLK4	Pre homogen blank	0.546	40					
F709414-BLK5	Post homogen blank	0.512	40					
F709414-BS1	LCS	0.5	40	1704421	40			
F709414-BS2	DORM4	0.272	40	1703305	272			
F709414-BSD1	LCS Dup	0.5	40	1704421	40			
F709414-DUP1	Duplicate [1709493-01]	0.53	40					
F709414-MS1	Matrix Spike [1709493-01]	0.546	40	1705554	200			
F709414-MS2	Matrix Spike [1709493-11]	0.561	40	1705554	200			
F709414-MSD1	Matrix Spike Dup [1709493-01]	0.525	40	1705554	200			
F709414-MSD2	Matrix Spike Dup [1709493-11]	0.54	40	1705554	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM 4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	13-Mar-18 00:00	1704516	THg Washstation (0.5% BrCl)	
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1705552	3% SnCl2 THg reductant	05-Mar-18 00:00
			1705777	5% BrCl	22-Jan-18 00:00
			1705780	70/30 Digestion Acid	25-Mar-18 00:00

PREPARATION BENCH SHEET

F709414

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709493-01	HB-01_17LT019_091317_LOB_01_TA	0.522	40	QC	-	-	MD/MS/MSD	
1709493-02	HB-01_17LT021_091317_LOB_02_TA	0.552	40	-	-	-		
1709493-03	HB-01_17LT022_091317_LOB_03_TA	0.526	40	-	-	-		
1709493-04	HB-01_17LT022_091317_LOB_04_TA	0.528	40	-	-	-		
1709493-05	HB-01_17LT022_091317_LOB_05_TA	0.514	40	-	-	-		
1709493-06	HB-01_17LT023_091317_LOB_06_TA	0.529	40	-	-	-		
1709493-07	HB-01_17LT034_091517_LOB_07_TA	0.562	40	-	-	-		
1709493-08	HB-01_17LT034_091517_LOB_08_TA	0.592	40	-	-	-		
1709493-09	HB-01_17LT034_091517_LOB_09_TA	0.501	40	-	-	-		
1709493-10	HB-01_17LT036_091517_LOB_10_TA	0.523	40	-	-	-		
1709493-11	HB-01_17LT036_091517_LOB_11_TA	0.552	40	QC	-	-	MS/MSD	
1709493-12	HB-01_17LT036_091517_LOB_12_TA	0.514	40	-	-	-		
1709493-13	HB-01_17LT036_091517_LOB_13_TA	0.535	40	-	-	-		
1709493-14	HB-01_17LT049_091517_LOB_14_TA	0.525	40	-	-	-		
1709493-15	HB-01_17LT049_091517_LOB_15_TA	0.563	40	-	-	-		
1709493-16	HB-01_17LT050_091517_LOB_16_TA	0.506	40	-	-	-		
1709493-17	HB-01_17LT052_091517_LOB_17_TA	0.553	40	-	-	-		
1709493-18	HB-01_17LT052_091517_LOB_18_TA	0.591	40	-	-	-		
1709493-19	HB-01_17LT052_091517_LOB_19_TA	0.594	40	-	-	-		

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709414

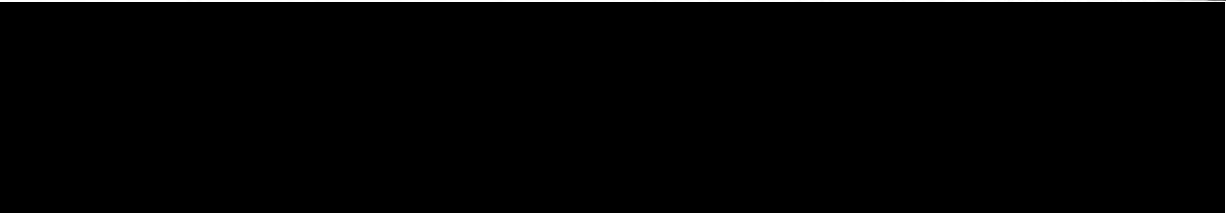
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

1709493-20	HB-01_17L1052_091517_LOB_20_TA	0.585	40	-	-	-		
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PREPARATION BENCH SHEET

2600-3
OC 9/27/17

F709451

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/27/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709451-BLK1	Blank	100	101					50mL: 1709608-3/ 50mL
F709451-BLK2	Blank	100	101					50mL
F709451-BLK3	Blank	100	101					50mL
F709451-BS1	LCS	100	101	1705054	100			50mL
F709451-BSD1	LCS Dup	100	101	1705054	100			50mL
F709451-DUP1	Duplicate 1709608-03	100	101					50mL
F709451-MS1	Matrix Spike 1709608-03	100	101	1704422	25			50mL
F709451-MS2	Matrix Spike 1709608-11	100	101	1704422	25			50mL
F709451-MSD1	Matrix Spike Dup 1709608-03	100	101	1704422	25			50mL
F709451-MSD2	Matrix Spike Dup 1709608-11	100	101	1704422	25			50mL

Standard ID(s): Description:

Expiration:

50mL = 1X

1705552
1704516
1704517
1703182

PREPARATION BENCH SHEET

2600-3
BC 9/27/17

F709451

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/27/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709608-01	OL-2761-01	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-02	OL-2761-01 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-03	OL-2761-02	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-04	OL-2761-02 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-05	OL-2761-03	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-06	OL-2761-03 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-07	OL-2761-04	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-08	OL-2761-04 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-09	OL-2761-05	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-10	OL-2761-05 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-11	OL-2761-06	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-12	OL-2761-06 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-13	OL-2761-07	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-14	OL-2761-07 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-15	OL-2761-08	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-16	OL-2761-08 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-17	OL-2761-09	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-18	OL-2761-09 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	50mL
1709608-19	OL-2761-10	100	101	-	-	-	2 Preservation blanks created due to >2	50mL

Due Date: 10/6/2017

PREPARATION BENCH SHEET

2600-3
BL 9/27/17

F709451

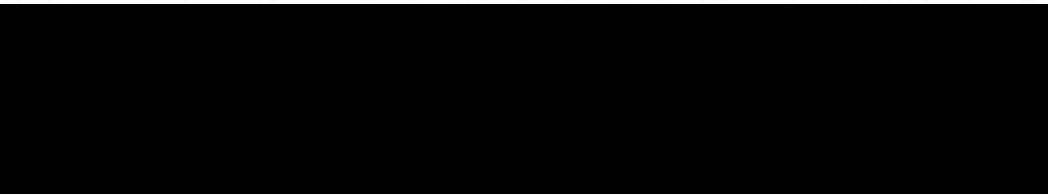
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/27/2017

1709608-20	OL-2761-10 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	50ml
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Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 9/25/17 Time Completed: 18:08

Work Orders: 1709608

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1704515

Pipette SN: J07631

Cal. Date: 9/20/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1709608-01A	300	3.00	Y			
1709608-02B	300	3.00	Y			
1709608-03A	300	3.00	Y			
1709608-04B	300	3.00	Y			
1709608-05A	300	3.00	Y			
1709608-06B	300	3.00	Y			
1709608-07A	300	3.00	Y			
1709608-08B	300	3.00	Y			
1709608-09A	300	3.00	Y			
1709608-10B	300	3.00	Y			
1709608-11A	300	3.00	Y			
1709608-12B	300	3.00	Y			
1709608-13A	300	3.00	Y			
1709608-14B	300	3.00	Y			
1709608-15A	300	3.00	Y			
1709608-16B	300	3.00	Y			
1709608-17A	300	3.00	Y			
1709608-18B	300	3.00	Y			
1709608-19A	300	3.00	Y			
1709608-20B	290	2.90	Y			
1709608-21A	300	3.00	Y			
1709608-22B	300	3.00	Y			
1709608-23A	300	3.00	Y			
1709608-24B	300	3.00	Y			
1709608-25A	300	3.00	Y			
1709608-26B	300	3.00	Y			

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

PREPARATION BENCH SHEET

BL 9/27/17

2600-3

F709452

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/27/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709452-BLK1	Blank	100	101					Source 1709608-32 50ml
F709452-BLK2	Blank	100	101					50ml
F709452-BLK3	Blank	100	101					50ml
F709452-BS1	LCS	100	101					50ml
F709452-BSD1	LCS Dup	100	101					50ml
F709452-DUP1	Duplicate 1709608-27	100	101					50ml
F709452-MS1	Matrix Spike 1709608-27	100	101	1704483	125			50ml
F709452-MS2	Matrix Spike 1709608-27	100	101	1704483	125			50ml
F709452-MSD1	Matrix Spike Dup 1709608-27	100	101	1704483	125			50ml
F709452-MSD2	Matrix Spike Dup 1709608-27	100	101	1704483	125			50ml

Standard ID(s):

Description:

Expiration:

BLK 4 100 102 50ml

50ml = 1X
5ml = 10X

1704515
1704516
1704517
1703102
1705552

PREPARATION BENCH SHEET

PL 9/27/17
2600-3

F709452

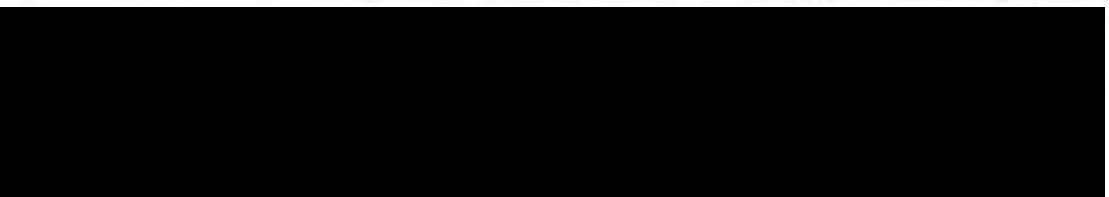
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/27/2017

Lah Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709608-21	OL-2761-11	100	101	-	-	-	2 Preservation blanks created due to >2	50ml
1709608-22	OL-2761-11 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	50ml
1709608-23	OL-2761-12	100	101	-	-	-	2 Preservation blanks created due to >2	50ml
1709608-24	OL-2761-12 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	50ml
1709608-25	OL-2761-13	100	101	-	-	-	2 Preservation blanks created due to >2	50ml
1709608-26	OL-2761-13 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	50ml
1709608-27	OL-2761-FB1	100	101	-	-	-	2 Preservation blanks created due to >2	50ml
1709608-28	OL-2761-FB1 Dissolved	100	101	-	-	-	2 Preservation blanks created due to >2	50ml
1709608-29	OL-2761-TB1	100	101	-	-	-	2 Preservation blanks created due to >2	50ml
1709608-30	Laboratory Filter Blank	100	101	-	-	-	Scan all data for level IV report	50ml
1709670-01	Big Cove Influent	100	101	-	-	-		5ml → 5ml
1709670-02	Big Cove Duplicate	100	101	-	-	-		5ml → 5ml
1709670-03	Big Cove Trip Blank	100	101	-	-	-		50ml



Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 9/25/17 Time Completed: 18:15

Work Orders: 1709608
1709670

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1704515
Pipette SN: 707631
Cal. Date: 9/20/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1709608-27A	300	3.00	Y			
1709608-28B	300	3.00	Y			
1709608-29A	300	3.00	Y			
1709608-30A	300	3.00	Y			
1709608-31A	300	3.00	Y			
1709608-32A	300	3.00	Y			
1709670-01A	300	3.00	N	N	3.00	Y
1709670-02A	300	3.00	N	N	3.00	Y
1709670-03A	300	3.00	Y			
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: absolute; top: 50%; left: 50%;"></div>						
			LM	9/25/17		

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
9/26/17 DM

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LJM Date: 9/25/17 Time Completed: 18:08

Work Orders: 1709608

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1704515

Pipette SN: J07631

Cal. Date: 9/20/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1709608-01A	300	3.00	Y			
1709608-02B	300	3.00	Y			
1709608-03A	300	3.00	Y			
1709608-04B	300	3.00	Y			
1709608-05A	300	3.00	Y			
1709608-06B	300	3.00	Y			
1709608-07A	300	3.00	Y			
1709608-08B	300	3.00	Y			
1709608-09A	300	3.00	Y			
1709608-10B	300	3.00	Y			
1709608-11A	300	3.00	Y			
1709608-12B	300	3.00	Y			
1709608-13A	300	3.00	Y			
1709608-14B	300	3.00	Y			
1709608-15A	300	3.00	Y			
1709608-16B	300	3.00	Y			
1709608-17A	300	3.00	Y			
1709608-18B	300	3.00	Y			
1709608-19A	300	3.00	Y			
1709608-20B	290	2.90	Y			
1709608-21A	300	3.00	Y			
1709608-22B	300	3.00	Y			
1709608-23A	300	3.00	Y			
1709608-24B	300	3.00	Y			
1709608-25A	300	3.00	Y			
1709608-26B	300	3.00	Y			

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

PREPARATION BENCH SHEET

2600-3
 BX 9/27/17

F709414

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709414-BLK1	Blank	0.5	40					20X 2.5 mL
F709414-BLK2	Blank	0.5	40					2.5 mL
F709414-BLK3	Blank	0.5	40					2.5 mL
F709414-BLK4	Pre homogen blank	0.546	40					2.5 mL
F709414-BLK5	Post homogen blank	0.512	40					2.5 mL
F709414-BS1	LCS	0.5	40	1704421	40			2.5 mL
F709414-BS2	DORM4	0.272	40	1703305	272			125 µL
F709414-BSD1	LCS Dup	0.5	40	1704421	40			2.5 mL
F709414-DUP1	Duplicate [1709493-01]	0.53	40					500 125 µL
F709414-MS1	Matrix Spike [1709493-01]	0.546	40	1705554	200			125 µL
F709414-MS2	Matrix Spike [1709493-11]	0.561	40	1705554	200			125 µL
F709414-MSD1	Matrix Spike Dup [1709493-01]	0.525	40	1705554	200			125 µL
F709414-MSD2	Matrix Spike Dup [1709493-11]	0.54	40	1705554	200			125 µL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	TlHg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1705780	70/30 Digestion Acid	25-Mar-18 00:00
1705554	Hg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00			

2.5 mL = 20X
 500 µL = 100X
 125 µL = 400X

1704421
 1704517
 1703305
 +5 1705554

Due Date: 10/17/2017

PREPARATION BENCH SHEET

2600-3
BC 9/27/17

F709414

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709493-01	HB-01_17LT019_091317_LOB_01_TA	0.522	40	QC	-	-	MD/MS/MSD 125ul	
1709493-02	HB-01_17LT021_091317_LOB_02_TA	0.552	40	-	-	-	125ul	
1709493-03	HB-01_17LT022_091317_LOB_03_TA	0.523	40	-	-	-	125ul	
1709493-04	HB-01_17LT022_091317_LOB_04_TA	0.528	40	-	-	-	125ul	
1709493-05	HB-01_17LT022_091317_LOB_05_TA	0.514	40	-	-	-	125ul	
1709493-06	HB-01_17LT023_091317_LOB_06_TA	0.529	40	-	-	-	125ul	
1709493-07	HB-01_17LT034_091517_LOB_07_TA	0.562	40	-	-	-	500ul	
1709493-08	HB-01_17LT034_091517_LOB_08_TA	0.592	40	-	-	-	500ul	
1709493-09	HB-01_17LT034_091517_LOB_09_TA	0.501	40	-	-	-	500ul	
1709493-10	HB-01_17LT036_091517_LOB_10_TA	0.523	40	-	-	-	500ul	
1709493-11	HB-01_17LT036_091517_LOB_11_TA	0.552	40	QC	-	-	MS/MSD 500ul	
1709493-12	HB-01_17LT036_091517_LOB_12_TA	0.514	40	-	-	-	500ul	
1709493-13	HB-01_17LT036_091517_LOB_13_TA	0.535	40	-	-	-	500ul	
1709493-14	HB-01_17LT049_091517_LOB_14_TA	0.525	40	-	-	-	500ul	
1709493-15	HB-01_17LT049_091517_LOB_15_TA	0.563	40	-	-	-	500ul	
1709493-16	HB-01_17LT050_091517_LOB_16_TA	0.506	40	-	-	-	500ul	
1709493-17	HB-01_17LT052_091517_LOB_17_TA	0.553	40	-	-	-	500ul	
1709493-18	HB-01_17LT052_091517_LOB_18_TA	0.591	40	-	-	-	500ul	
1709493-19	HB-01_17LT052_091517_LOB_19_TA	0.594	40	-	-	-	500ul	

PREPARATION BENCH SHEET

2600-3
BCG/27/17

F709414

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

1709493-20	HB-01_17LT052_091517_LOB_20_TA	0.585	40	-	-	-	Spout	
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Technician: BL/AMB Batch#: F709414 Date: 9/26/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 10 Calibrated? Yes No Therm.#: 140418015 Calibrated? Yes No
 +Time in: 1850 Actual Temp. (raw): 76.9 °C w/ CF: 77.0 °C
 Time out: 2050 Actual Temp. (raw): timer °C w/ CF: timer °C

*Time in can't begin before target temperature is reached
 Final vol.: 40 mL (LIMS ID: 1705777) Spike vol.: 200 ^(ms/msd) µL (LIMS ID: 1705554)
 Spike Witness: DM 9/26/17 (Initial and date)

HCl LIMS ID: N/A Pipette SN#: DU 07852 Calibration Date: 9-26-17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705780 Dispenser #: 02K2749A Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623
 Glass Vial # 00066592 Boiling Chip lot # 1702551 *Hotblock Position: H5 B5
AMB 9-26-17

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F709414 - BK1	0.562	23	F709414 - MS2	0.561	BS2
2	F709414 - BK2	0.541	24	F709414 - MS02	0.540	Dorm 4
3	F709414 - BK3	0.507	25	1709493 - 12	0.514	1703305
4	F709414 - BK4	0.546	26	1709493 - 13	0.535	Comments
5	F709414 - BK5	0.512	27	1709493 - 14	0.525	1709493-01
6	F709414 - BS1	0.598	28	1709493 - 15	0.563	DUP, MS1, MS01
7	F709414 - BS01	0.520	29	1709493 - 16	0.506	
8	F709414 - BS2	0.272	30	1709493 - 17	0.553	
9	1709493-01	0.522	31	1709493 - 18	0.591	1709493-11
10	F709414 - DUP1	0.530	32	1709493 - 19	0.594	MS2-PAST MS02
11	F709414 - MS1	0.546	33	1709493 - 20	0.585	AMB 9-26-17
12	F709414 - MS01	0.525	34			BS1, BSD1
13	1709493 - 02	0.552	35			spiked with
14	1709493 - 03	0.526	36			40ml of 100ng/ml
15	1709493 - 04	0.528	37			LIMS: 1704421
16	1709493 - 05	0.514	38			spiked and
17	1709493 - 06	0.529	39			acid added
18	1709493 - 07	0.562	40			by AMB.
19	1709493 - 08	0.592	41			AMB 9-26-17
20	1709493 - 09	0.501	42			
21	1709493 - 10	0.523	43			
22	1709493 - 11	0.552	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7128012, 7128013
Reviewer:	0	Dataset ID(s):	THg26003-170927-1
Date:	9/28/2017	WO (s) #:	VARIOUS
Batch #(s):	F709451, F709452, F709414		0

Analyst Initials BC **Reviewer Initials** DM

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF ($\leq 15\%$) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: _____
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: _____
- (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
- (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
- (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
- (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709632

PO#

C012505850

November 14, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709632

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November 14, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:21

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
L10-52_17LT006_091317_LOB_01_TA	1709632-01	Tissue	13-Sep-17 10:08	22-Sep-17 10:25
L10-52_17LT006_091317_LOB_02_TA	1709632-02	Tissue	13-Sep-17 10:08	22-Sep-17 10:25
L10-52_17LT006_091317_LOB_03_TA	1709632-03	Tissue	13-Sep-17 10:08	22-Sep-17 10:25
L10-52_17LT006_091317_LOB_04_TA	1709632-04	Tissue	13-Sep-17 10:08	22-Sep-17 10:25
L10-52_17LT006_091317_LOB_05_TA	1709632-05	Tissue	13-Sep-17 10:08	22-Sep-17 10:25
L10-52_17LT006_091317_LOB_06_TA	1709632-06	Tissue	13-Sep-17 10:08	22-Sep-17 10:25
L10-52_17LT007_091317_LOB_07_TA	1709632-07	Tissue	13-Sep-17 10:20	22-Sep-17 10:25
L10-52_17LT007_091317_LOB_08_TA	1709632-08	Tissue	13-Sep-17 10:20	22-Sep-17 10:25
L10-52_17LT007_091317_LOB_09_TA	1709632-09	Tissue	13-Sep-17 10:20	22-Sep-17 10:25
L10-52_17LT008_091317_LOB_10_TA	1709632-10	Tissue	13-Sep-17 10:37	22-Sep-17 10:25
L10-52_17LT008_091317_LOB_11_TA	1709632-11	Tissue	13-Sep-17 10:37	22-Sep-17 10:25
L10-52_17LT008_091317_LOB_12_TA	1709632-12	Tissue	13-Sep-17 10:37	22-Sep-17 10:25
L10-52_17LT009_091317_LOB_13_TA	1709632-13	Tissue	13-Sep-17 10:46	22-Sep-17 10:25
L10-52_17LT041_091517_LOB_14_TA	1709632-14	Tissue	13-Sep-17 11:57	22-Sep-17 10:25
L10-52_17LT041_091517_LOB_15_TA	1709632-15	Tissue	13-Sep-17 11:57	22-Sep-17 10:25
L10-52_17LT041_091517_LOB_16_TA	1709632-16	Tissue	13-Sep-17 11:57	22-Sep-17 10:25
L10-52_17LT042_091517_LOB_17_TA	1709632-17	Tissue	13-Sep-17 12:05	22-Sep-17 10:25
L10-52_17LT040_091517_LOB_18_TA	1709632-18	Tissue	13-Sep-17 12:12	22-Sep-17 10:25
L10-52_17LT040_091517_LOB_19_TA	1709632-19	Tissue	13-Sep-17 12:12	22-Sep-17 10:25
L10-52_17LT040_091517_LOB_20_TA	1709632-20	Tissue	13-Sep-17 12:12	22-Sep-17 10:25

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
14-Nov-17 15:21

REVISED REPORT (11/14/17)

Report was revised as the narrative in the original report did not include a comment that the % lipids requested on the sample submittal form were cancelled by the client. This has been updated in this revised report.

SAMPLE RECEIPT

Samples arrived in two shipments.

The first half of the samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/19/2017 9:35:00 AM . The samples were received intact, on-ice within nine sealed coolers at -12.7, -24.7, -15.2, -16.8, -12.1, -20.0, -17.3, -16.4, and -30.2 degrees Celsius.

The second half of the samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM . The samples were received intact, on-ice within a sealed cooler at -3.1 degrees Celsius.

Client requested Lipids Analysis by NOAA1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

The samples were processed following the work instructions provided by the client; EFSR-P-SP-WI11646. All of the samples were defrosted and the tails were then removed from the lobster. The shell was removed, and the meat was weighed, de-veined, and then homogenized before sample prep.

Total solids analysis was performed in accordance with method SM2540B.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B.

The samples were prepped in batch F710242 for % moisture and batch F709456 for total solids. The tail mass was measured in batch F710234.

The samples were prepped in batch F709455 and analyzed in sequence 7I29022 for total Mercury.

Per client request samples 1709632-01 and 1709632-07 were used as the source QC in these batches F710242, F709456, and F709455.

Eurofins Frontier Global Sciences, Inc.



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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
14-Nov-17 15:21

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Eurofins Frontier Global Sciences, Inc.



The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

Sample Receipt Checklist

Client: AMEC Foster Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/25/17 Labeled By: LM

Project: _____

Received By: LM Label Verified By: JCL

of Coolers Received: 1 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: (Y)N Temp Blank Used: (Y)N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>N</u>	
Custody seals signed:	<u>N</u>	

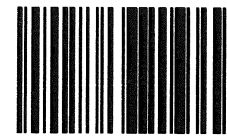
TID: <u>43150</u>	CF: <u>+0.2 °C</u>	Date/time: <u>9/22/17 0:30</u>	By: <u>LM</u>
Cooler 1: <u>-3.3 °C</u>	w/ CF: <u>-3.1 °C</u>	Cooler 4: °C	w/ CF: °C
Cooler 2: °C	w/ CF: °C	Cooler 5: °C	w/ CF: °C
Cooler 3: °C	w/ CF: °C	Cooler 6: °C	w/ CF: °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>N</u>	
Preservation type:	<u>N</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>NA</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>NA</u>	

Anomalies/Non-conformances (attach additional pages if needed):

1709632





AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:21

L10-52_17LT006_091317_LOB_01_TA
1709632-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1090	9.24	82.5	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	194	1.65	14.8	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.1	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.9	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	130	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:21

L10-52_17LT006_091317_LOB_02_TA
1709632-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	872	9.83	87.7	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	153	1.72	15.4	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.5	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.5	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	122	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:21

L10-52_17LT006_091317_LOB_03_TA
1709632-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1860	8.98	80.1	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	321	1.55	13.9	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.7	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.3	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	92.4	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:21

L10-52_17LT006_091317_LOB_04_TA
1709632-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1580	8.69	77.6	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	309	1.69	15.1	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.5	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.5	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	92.1	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:21

L10-52_17LT006_091317_LOB_05_TA
1709632-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	713	9.25	82.6	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	128	1.66	14.8	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.1	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.9	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	96.9	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 14-Nov-17 15:21
--	---	-------------------------------------

**L10-52_17LT006_091317_LOB_06_TA
1709632-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1030	9.16	81.7	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	178	1.57	14.1	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.8	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.2	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	116	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:21

**L10-52_17LT007_091317_LOB_07_TA
1709632-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	9430	23.4	209	ng/g dry	1000	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	1730	4.27	38.2	ng/g	1000	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.7	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.3	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	210	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:21

L10-52_17LT007_091317_LOB_08_TA
1709632-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1100	10.0	89.6	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	193	1.76	15.7	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.5	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.5	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	76.0	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:21

L10-52_17LT007_091317_LOB_09_TA
1709632-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	3150	9.87	88.1	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	542	1.70	15.2	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.8	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.2	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	147	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:21

**L10-52_17LT008_091317_LOB_10_TA
1709632-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1270	9.23	82.4	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	237	1.72	15.3	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.4	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.6	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	137	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:21

L10-52_17LT008_091317_LOB_11_TA
1709632-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1550	9.87	88.1	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	267	1.70	15.2	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.8	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.2	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	134	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:21

L10-52_17LT008_091317_LOB_12_TA
1709632-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	756	9.29	82.9	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	141	1.74	15.5	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.3	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.7	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	125	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:21

L10-52_17LT009_091317_LOB_13_TA
1709632-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1200	8.30	74.1	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	241	1.66	14.8	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.0	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	20.0	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	126	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

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**L10-52_17LT041_091517_LOB_14_TA
1709632-14**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	913	8.44	75.3	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	174	1.61	14.4	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	80.9	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	19.1	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	46.5	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

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Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

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14-Nov-17 15:21

L10-52_17LT041_091517_LOB_15_TA
1709632-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1200	10.0	89.5	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	212	1.77	15.8	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.3	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.7	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	88.6	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

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Project Number: 3616166052.04A.055
Project Manager: Denise King

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L10-52_17LT041_091517_LOB_16_TA
1709632-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1430	10.2	91.2	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	250	1.79	16.0	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.5	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.5	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	94.5	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

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Project Number: 3616166052.04A.055
Project Manager: Denise King

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L10-52_17LT042_091517_LOB_17_TA
1709632-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1040	9.10	81.2	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	181	1.58	14.1	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.6	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.4	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	144	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

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Project Manager: Denise King

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L10-52_17LT040_091517_LOB_18_TA
1709632-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	2820	9.24	82.5	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	519	1.70	15.2	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	81.6	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.4	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	141	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

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Project Number: 3616166052.04A.055
Project Manager: Denise King

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L10-52_17LT040_091517_LOB_19_TA
1709632-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	3630	8.67	77.4	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	654	1.56	13.9	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.0	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	18.0	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	194	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

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Project Number: 3616166052.04A.055
Project Manager: Denise King

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14-Nov-17 15:21

**L10-52_17LT040_091517_LOB_20_TA
1709632-20**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Mercury Dry Weight Corrected	1610	10.1	90.1	ng/g dry	400	[CALC]	27-Sep-17		29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	278	1.74	15.5	ng/g	400	F709455	27-Sep-17	7129022	29-Sep-17	EPA 1631B	
Sample Preparation: EFGS-019 Solids Analysis											
% Moisture	82.8	0.1	0.1	% by Weight	1	F710242	05-Oct-17		05-Oct-17	SM 2540B	O-04
% Solids	17.2	0.1	0.1	% by Weight	1	F709456	27-Sep-17		28-Sep-17	SM 2540B	O-04, O-09
Sample Preparation: No Preparation											
Tail or Claw Mass	193	0.10	0.10	g	1	F710234	05-Oct-17		05-Oct-17	None	

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7I29022 - F709411											
Cal Standard (7I29022-CAL1) Prepared & Analyzed: 29-Sep-17											
Mercury	0.524	-		ng/L	0.50100		105				
Cal Standard (7I29022-CAL2) Prepared & Analyzed: 29-Sep-17											
Mercury	1.025	-		ng/L	1.0020		102				
Cal Standard (7I29022-CAL3) Prepared & Analyzed: 29-Sep-17											
Mercury	4.826	-		ng/L	5.0100		96.3				
Cal Standard (7I29022-CAL4) Prepared & Analyzed: 29-Sep-17											
Mercury	19.95	-		ng/L	20.040		99.6				
Cal Standard (7I29022-CAL5) Prepared & Analyzed: 29-Sep-17											
Mercury	38.55	-		ng/L	40.080		96.2				
Calibration Blank (7I29022-CCB1) Prepared & Analyzed: 29-Sep-17											
Mercury	0.045	-		ng/L							
Calibration Blank (7I29022-CCB2) Prepared & Analyzed: 29-Sep-17											
Mercury	0.080	-		ng/L							
Calibration Blank (7I29022-CCB3) Prepared & Analyzed: 29-Sep-17											
Mercury	0.017	-		ng/L							
Calibration Blank (7I29022-CCB4) Prepared & Analyzed: 29-Sep-17											
Mercury	0.026	-		ng/L							
Calibration Blank (7I29022-CCB5) Prepared & Analyzed: 29-Sep-17											
Mercury	0.073	-		ng/L							

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:21

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7I29022 - F709411

Calibration Blank (7I29022-CCB6)				Prepared & Analyzed: 29-Sep-17							
Mercury	0.066	-		ng/L							
Calibration Blank (7I29022-CCB7)				Prepared & Analyzed: 29-Sep-17							
Mercury	0.181	-		ng/L							
Calibration Blank (7I29022-CCB8)				Prepared & Analyzed: 29-Sep-17							
Mercury	0.118	-		ng/L							
Calibration Blank (7I29022-CCB9)				Prepared & Analyzed: 29-Sep-17							
Mercury	0.114	-		ng/L							
Calibration Check (7I29022-CCV1)				Prepared & Analyzed: 29-Sep-17							
Mercury	4.891	-		ng/L	5.0000		97.8	77-123			
Calibration Check (7I29022-CCV2)				Prepared & Analyzed: 29-Sep-17							
Mercury	4.964	-		ng/L	5.0000		99.3	77-123			
Calibration Check (7I29022-CCV3)				Prepared & Analyzed: 29-Sep-17							
Mercury	4.909	-		ng/L	5.0000		98.2	77-123			
Calibration Check (7I29022-CCV4)				Prepared & Analyzed: 29-Sep-17							
Mercury	4.894	-		ng/L	5.0000		97.9	77-123			
Calibration Check (7I29022-CCV5)				Prepared & Analyzed: 29-Sep-17							
Mercury	5.271	-		ng/L	5.0000		105	77-123			
Calibration Check (7I29022-CCV6)				Prepared & Analyzed: 29-Sep-17							
Mercury	5.031	-		ng/L	5.0000		101	77-123			

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7I29022 - F709411

Calibration Check (7I29022-CCV7) Prepared & Analyzed: 29-Sep-17

Mercury	5.243	-		ng/L	5.0000		105	77-123			
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Calibration Check (7I29022-CCV8) Prepared & Analyzed: 29-Sep-17

Mercury	5.146	-		ng/L	5.0000		103	77-123			
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Calibration Check (7I29022-CCV9) Prepared & Analyzed: 29-Sep-17

Mercury	4.970	-		ng/L	5.0000		99.4	77-123			
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Instrument Blank (7I29022-IBL1) Prepared & Analyzed: 29-Sep-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7I29022-IBL2) Prepared & Analyzed: 29-Sep-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7I29022-IBL3) Prepared & Analyzed: 29-Sep-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7I29022-ICV1) Prepared & Analyzed: 29-Sep-17

Mercury	4.838	-		ng/L	5.0000		96.8	79-121			
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Batch F709455 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F709455-BLK1) Prepared: 27-Sep-17 Analyzed: 29-Sep-17

Mercury	0.163	0.090	0.800	ng/g							J
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Blank (F709455-BLK2) Prepared: 27-Sep-17 Analyzed: 29-Sep-17

Mercury	ND	0.090	0.800	ng/g							U
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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 14-Nov-17 15:21
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F709455 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F709455-BLK3)												Prepared: 27-Sep-17 Analyzed: 29-Sep-17	
Mercury	ND	0.090	0.800	ng/g								U	
Blank (F709455-BLK4)												Prepared: 27-Sep-17 Analyzed: 29-Sep-17	
Mercury	ND	0.082	0.731	ng/g								F-03, U	
Blank (F709455-BLK5)												Prepared: 27-Sep-17 Analyzed: 29-Sep-17	
Mercury	ND	0.086	0.772	ng/g								F-03, U	
LCS (F709455-BS1)												Prepared: 27-Sep-17 Analyzed: 29-Sep-17	
Mercury	8.031	0.090	0.800	ng/g	8.0160		100	75-125					
LCS (F709455-BS2)												Prepared: 27-Sep-17 Analyzed: 29-Sep-17	
Mercury	342.5	3.21	28.7	ng/g	382.50		89.5	75-125					
LCS Dup (F709455-BSD1)												Prepared: 27-Sep-17 Analyzed: 29-Sep-17	
Mercury	7.852	0.090	0.800	ng/g	8.0160		98.0	75-125	2.25	24			
Duplicate (F709455-DUP1)												Source: 1709632-01 Prepared: 27-Sep-17 Analyzed: 29-Sep-17	
Mercury	196.2	1.65	14.7	ng/g		194.4			0.931	24			
Matrix Spike (F709455-MS1)												Source: 1709632-01 Prepared: 27-Sep-17 Analyzed: 29-Sep-17	
Mercury	530.4	1.52	13.6	ng/g	340.14	194.4	98.8	71-125					
Matrix Spike (F709455-MS3)												Source: 1709632-07RE1 Prepared: 27-Sep-17 Analyzed: 29-Sep-17	
Mercury	2436	4.04	36.0	ng/g	360.36	1726	197	71-125				QM-02	
Matrix Spike (F709455-MS4)												Source: 1709632-07RE1 Prepared: 27-Sep-17 Analyzed: 29-Sep-17	
Mercury	5577	10.7	95.4	ng/g	3824.4	1726	101	71-125				AS	

Eurofins Frontier Global Sciences, Inc.



The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 14-Nov-17 15:21
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F709455 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F709455-MSD1)		Source: 1709632-01			Prepared: 27-Sep-17 Analyzed: 29-Sep-17						
Mercury	544.2	1.68	15.0	ng/g	375.23	194.4	93.2	71-125	5.80	24	
Matrix Spike Dup (F709455-MSD3)		Source: 1709632-07RE1			Prepared: 27-Sep-17 Analyzed: 29-Sep-17						
Mercury	2314	3.96	35.3	ng/g	353.36	1726	166	71-125	16.8	24	QM-02
Matrix Spike Dup (F709455-MSD4)		Source: 1709632-07RE1			Prepared: 27-Sep-17 Analyzed: 29-Sep-17						
Mercury	5555	10.7	95.4	ng/g	3824.4	1726	100	71-125	0.554	24	AS

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: Maine Lobster Special Project 2017 Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 14-Nov-17 15:21
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F709456 - EFGS-019 Solids Analysis

Duplicate (F709456-DUP1)		Source: 1709632-01		Prepared: 27-Sep-17 Analyzed: 28-Sep-17							
% Solids	18.6	0.1	0.1	% by Weight		17.9			3.84	10	O-04, O-09
Duplicate (F709456-DUP2)		Source: 1709632-07		Prepared: 27-Sep-17 Analyzed: 28-Sep-17							
% Solids	18.3	0.1	0.1	% by Weight		18.3			0.00	10	O-04, O-09

Batch F710242 - EFGS-019 Solids Analysis

Duplicate (F710242-DUP1)		Source: 1709632-01		Prepared & Analyzed: 05-Oct-17							
% Moisture	81.4	0.1	0.1	% by Weight		82.1			0.856	10	O-04
Duplicate (F710242-DUP2)		Source: 1709632-07		Prepared & Analyzed: 05-Oct-17							
% Moisture	81.7	0.1	0.1	% by Weight		81.7			0.00	10	O-04

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: Maine Lobster Special Project 2017
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
14-Nov-17 15:21

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QM-02 The MS and/or MSD recoveries outside acceptance limits, due to spike concentration less than 1 times the sample concentration. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
- O-09 Total Solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction.
- O-04 This sample was analyzed outside of the recommended holding time.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- AS This MS and/or MSD is an analytical spike and/or an analytical spike duplicate.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference





Frontier Global Sciences

Total Solids Dataset Cover Page

Dataset ID: TS170927-1
Batch ID: F709456/F710242
Work Order(s): 1709632

Analyst: CLC
Prep. Date: 9/27/2017

Analytical Issues/Explanations:

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: CLC 10/5/17

Preparation Date: Sep 27, 2017

Batch #: 1

Analyst: CLC

Batch ID: F709456/F710242

Work Order(s): 1709632

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes	% Moisture
1	1709632-01	0.9980	6.3040	5.3060	1.9490	0.9510	17.9%		82.1%
2	1709632-01MD	1.0210	6.3710	5.3500	2.0170	0.9960	18.6%	3.8%	81.4%
3	1709632-02	1.0030	6.3220	5.3190	1.9340	0.9310	17.5%		82.5%
4	1709632-03	1.0150	6.6570	5.6420	1.9890	0.9740	17.3%		82.7%
5	1709632-04	1.0130	6.0460	5.0330	1.9950	0.9820	19.5%		80.5%
6	1709632-05	1.0310	6.0970	5.0660	1.9380	0.9070	17.9%		82.1%
7	1709632-06	1.0410	6.4920	5.4510	1.9810	0.9400	17.2%		82.8%
8	1709632-07	1.0070	6.4660	5.4590	2.0070	1.0000	18.3%		81.7%
9	1709632-07MD	0.9850	6.0820	5.0970	1.9180	0.9330	18.3%	0.1%	81.7%
10	1709632-08	1.0100	6.2490	5.2390	1.9250	0.9150	17.5%		82.5%
11	1709632-09	1.0170	6.5730	5.5560	1.9750	0.9580	17.2%		82.8%
12	1709632-10	1.0250	6.4070	5.3820	2.0240	0.9990	18.6%		81.4%
13	1709632-11	1.0230	6.4810	5.4580	1.9620	0.9390	17.2%		82.8%
14	1709632-12	1.0110	6.5490	5.5380	2.0490	1.0380	18.7%		81.3%
15	1709632-13	1.0250	6.7930	5.7680	2.1770	1.1520	20.0%		80.0%
16	1709632-14	1.0150	6.6440	5.6290	2.0920	1.0770	19.1%		80.9%
17	1709632-15	1.0360	6.4450	5.4090	1.9940	0.9580	17.7%		82.3%
18	1709632-16	1.0160	6.1520	5.1360	1.9170	0.9010	17.5%		82.5%
19	1709632-17	1.0360	6.7660	5.7300	2.0310	0.9950	17.4%		82.6%
20	1709632-18	1.0070	6.6040	5.5970	2.0370	1.0300	18.4%		81.6%
21	1709632-19	1.0320	6.1370	5.1050	1.9520	0.9200	18.0%		82.0%
22	1709632-20	1.0310	6.0840	5.0530	1.8990	0.8680	17.2%		82.8%

PREPARATION BENCH SHEET

F710242

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	μ l Spike1	Spike2 ID	μ l Spike2	Extraction Comments
F710242-DUP1	Duplicate [1709632-01]	5	5					
F710242-DUP2	Duplicate [1709632-07]	5	5					

Standard ID(s):

Description:

Expiration:

PREPARATION BENCH SHEET

F710242

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709632-01	L10-52_17LT006_091317_LOB_01_TA	5	5	QC	-	-	MS/MSD	
1709632-02	L10-52_17LT006_091317_LOB_02_TA	5	5	-	-	-		
1709632-03	L10-52_17LT006_091317_LOB_03_TA	5	5	-	-	-		
1709632-04	L10-52_17LT006_091317_LOB_04_TA	5	5	-	-	-		
1709632-05	L10-52_17LT006_091317_LOB_05_TA	5	5	-	-	-		
1709632-06	L10-52_17LT006_091317_LOB_06_TA	5	5	-	-	-		
1709632-07	L10-52_17LT007_091317_LOB_07_TA	5	5	-	-	-		
1709632-08	L10-52_17LT007_091317_LOB_08_TA	5	5	-	-	-		
1709632-09	L10-52_17LT007_091317_LOB_09_TA	5	5	-	-	-		
1709632-10	L10-52_17LT008_091317_LOB_10_TA	5	5	-	-	-		
1709632-11	L10-52_17LT008_091317_LOB_11_TA	5	5	-	-	-		
1709632-12	L10-52_17LT008_091317_LOB_12_TA	5	5	-	-	-		
1709632-13	L10-52_17LT009_091317_LOB_13_TA	5	5	-	-	-		
1709632-14	L10-52_17LT041_091517_LOB_14_TA	5	5	-	-	-		
1709632-15	L10-52_17LT041_091517_LOB_15_TA	5	5	-	-	-		
1709632-16	L10-52_17LT041_091517_LOB_16_TA	5	5	-	-	-		
1709632-17	L10-52_17LT042_091517_LOB_17_TA	5	5	-	-	-		
1709632-18	L10-52_17LT040_091517_LOB_18_TA	5	5	-	-	-		
1709632-19	L10-52_17LT040_091517_LOB_19_TA	5	5	-	-	-		

PREPARATION BENCH SHEET

F710242

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 10/5/2017

1709632-20	L10-52_17LT040_091517_LOB_20_TA	5	5	-	-	-		
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Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: TR

Date: 10/5/2017

Reviewer: *PLU*

Date: 10/5/17

WO #: 1709632

Batch #: F710234

Dataset ID: NA

Reviewer Initials: *R*

General Comments/Re-run requirements:

DI-Mass for 1709632 entered into LIMS by TR 10-5-17

Select	SOP	Method	Matrix
<input type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date
<u>TR</u>	<u>NA</u>

Reviewer Initials: *R*

1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

Density Only - NA this section

<input type="checkbox"/> DONE		<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input type="checkbox"/>

2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
 - (v) Volume (if other than 1 mL): _____ Can the calculated result be reproduced?

Total Solids Only - NA this section

<input type="checkbox"/> DONE		<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input type="checkbox"/>

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: *R 10/5/17*

PREPARATION BENCH SHEET

F710234

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - No Preparation

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709632-01	L10-52_17LT006_091317_LOB_01_TA	1	1	QC	-	-	MS/MSD Total Mass of Lobster Tail M	
1709632-02	L10-52_17LT006_091317_LOB_02_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-03	L10-52_17LT006_091317_LOB_03_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-04	L10-52_17LT006_091317_LOB_04_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-05	L10-52_17LT006_091317_LOB_05_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-06	L10-52_17LT006_091317_LOB_06_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-07	L10-52_17LT007_091317_LOB_07_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-08	L10-52_17LT007_091317_LOB_08_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-09	L10-52_17LT007_091317_LOB_09_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-10	L10-52_17LT008_091317_LOB_10_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-11	L10-52_17LT008_091317_LOB_11_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-12	L10-52_17LT008_091317_LOB_12_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-13	L10-52_17LT009_091317_LOB_13_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-14	L10-52_17LT041_091517_LOB_14_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-15	L10-52_17LT041_091517_LOB_15_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-16	L10-52_17LT041_091517_LOB_16_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-17	L10-52_17LT042_091517_LOB_17_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-18	L10-52_17LT040_091517_LOB_18_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	
1709632-19	L10-52_17LT040_091517_LOB_19_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI	

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710234

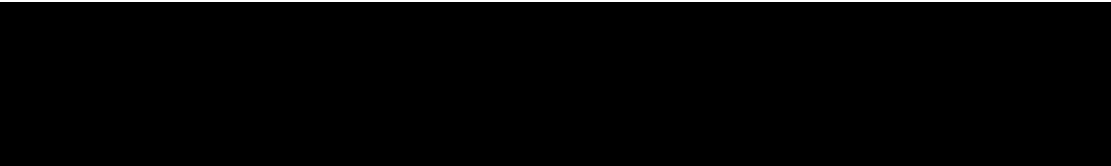
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - No Preparation

Prepared: 10/5/2017

1709632-20	L10-52_17LT040_091517_LOB_20_TA	1	1	-	-	-	Total Mass of Lobster Tail Meat - EFSI
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AmecFW Maine Lobster Special Project 2017- Lobster Homogenization Logbook

Work Order NUMBER	Tech Initials	Date	Thawed Y/ N	Balance ID	Tail Weight (g)	Tail de-veined Y/ N	Blender Type 1 = Robot Co upe 2 = Magic Bullet 3= Other	% Lipids Subsample taken Y/N	Comments
1709493-20	DH	9/25/17	Y	18	77.11	Y	2	Y	
1709491-19	DM	9/25/17	Y	18	92.51	Y	2	Y	
1709491-20	DM	9/25/17	Y	18	88.04	Y	2	Y	
1709491-08	DH	9/25/17	Y	18	183.60	Y	2	Y	
1709491-09	DH	9/25/17	Y	18	94.89	Y	2	Y	
1709491-10	DH	9/25/17	Y	18	156.70	Y	2	Y	
1709491-11	DH	9/25/17	Y	18	111.12	Y	2	Y	
1709491-12	DH	9/25/17	Y	18	114.55	Y	2	Y	
1709491-13	DH	9/25/17	Y	18	110.21	Y	2	Y	
1709491-14	DH	9/25/17	Y	18	120.48	Y	2	Y	
1709632-01	CB	9/26/17	Y	18	130.06	Y	2	Y	
1709632-02	CB	9/26/17	Y	18	122.44	Y	2	Y	
1709632-03	CB	9/26/17	Y	18	92.43	Y	2	Y	
1709632-04	CB	9/26/17	Y	18	92.13	Y	2	Y	
1709632-05	DH	9/26/17	Y	18	96.88	Y	2	Y	
1709632-06	DH	9/26/17	Y	18	115.83	Y	2	Y	
1709632-07	DH	9/26/17	Y	18	209.92	Y	2	Y	
1709632-08	CB	9/26/17	Y	18	76.04	Y	2	Y	

AmecFW Maine Lobster Special Project 2017- Lobster Homogenization Logbook

Work Order NUMBER	Tech Initials	Date	Thawed Y/ N	Balance ID	Tail Weight (g)	Tail de-veined Y/ N	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	% Lipids Subsample taken Y/N	Comments
1709632-09	CB	9/26/17	Y	18	146.98	Y	2	Y	
1709632-10	CB	9/26/17	Y	18	137.02	Y	2	Y	
1709632-11	CB	9/26/17	Y	18	133.78	Y	2	Y	
1709632-12	CB	9/26/17	Y	18	124.66	Y	2	Y	
1709632-13	CB	9/26/17	Y	18	125.94	Y	2	Y	
1709632-14	CB	9/26/17	Y	18	46.53	Y	2	Y	
1709632-15	DM	9/24/17	Y	18	88.00	Y	2	Y	
1709632-16	BC	9/24/17	Y	18	94.46	Y	2	Y	
1709632-17	BC	9/26/17	Y	18	144.49	Y	2	Y	
1709632-18	DM	9/24/17	Y	18	141.05	Y	2	Y	
1709632-19	DM	9/24/17	Y	18	194.42	Y	2	Y	
1709632-20	DM	9/24/17	Y	18	193.17	Y	2	Y	
<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 0 auto;"> <p>9/24/17 DM</p> </div>									



Frontier Global Sciences

Total Solids Dataset Cover Page

Dataset ID: TS170927-1
Batch ID: F709456
Work Order(s): 1709632

Analyst: CLC
Prep. Date: 9/27/2017

Analytical Issues/Explanations:

QUALITY ASSURANCE
PEER - REVIEWED
INITIALS: om 9/28/17

PREPARATION BENCH SHEET

F709456

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 9/27/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	μ l Spike1	Spike2 ID	μ l Spike2	Extraction Comments
F709456-DUP1	Duplicate [1709632-01]	5	5					
F709456-DUP2	Duplicate [1709632-07]	5	5					

Standard ID(s):

Description:

Expiration:

PREPARATION BENCH SHEET

F709456

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 9/27/2017

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs	Raw Data	Sample Comments	Analysis Comments
1709632-01	L10-52_17LT006_091317_LOB_01_TA	5	5	QC	-	-	MS/MSD	
1709632-02	L10-52_17LT006_091317_LOB_02_TA	5	5	-	-	-		
1709632-03	L10-52_17LT006_091317_LOB_03_TA	5	5	-	-	-		
1709632-04	L10-52_17LT006_091317_LOB_04_TA	5	5	-	-	-		
1709632-05	L10-52_17LT006_091317_LOB_05_TA	5	5	-	-	-		
1709632-06	L10-52_17LT006_091317_LOB_06_TA	5	5	-	-	-		
1709632-07	L10-52_17LT007_091317_LOB_07_TA	5	5	-	-	-		
1709632-08	L10-52_17LT007_091317_LOB_08_TA	5	5	-	-	-		
1709632-09	L10-52_17LT007_091317_LOB_09_TA	5	5	-	-	-		
1709632-10	L10-52_17LT008_091317_LOB_10_TA	5	5	-	-	-		
1709632-11	L10-52_17LT008_091317_LOB_11_TA	5	5	-	-	-		
1709632-12	L10-52_17LT008_091317_LOB_12_TA	5	5	-	-	-		
1709632-13	L10-52_17LT009_091317_LOB_13_TA	5	5	-	-	-		
1709632-14	L10-52_17LT041_091517_LOB_14_TA	5	5	-	-	-		
1709632-15	L10-52_17LT041_091517_LOB_15_TA	5	5	-	-	-		
1709632-16	L10-52_17LT041_091517_LOB_16_TA	5	5	-	-	-		
1709632-17	L10-52_17LT042_091517_LOB_17_TA	5	5	-	-	-		
1709632-18	L10-52_17LT040_091517_LOB_18_TA	5	5	-	-	-		
1709632-19	L10-52_17LT040_091517_LOB_19_TA	5	5	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F709456

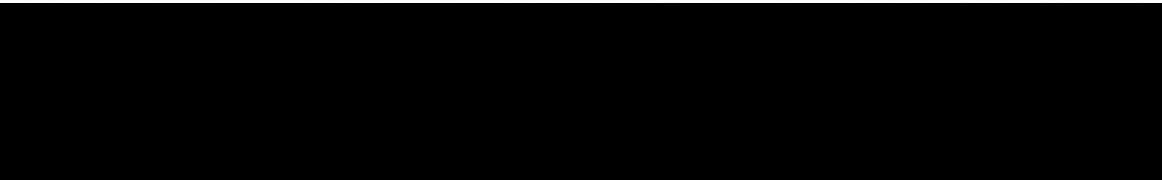
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 9/27/2017

1709632-20	L10-52_17LT040_091517_LOB_20_TA	5	5	-	-	-		
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Preparation Date: Sep 27, 2017

Batch #: 1

Analyst: CLC

Batch ID: F709456

Work Order(s): 1709632

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes
1	1709632-01	0.9980	6.3040	5.3060	1.9490	0.9510	17.9%	
2	1709632-01MD	1.0210	6.3710	5.3500	2.0170	0.9960	18.6%	3.8%
3	1709632-02	1.0030	6.3220	5.3190	1.9340	0.9310	17.5%	
4	1709632-03	1.0150	6.6570	5.6420	1.9890	0.9740	17.3%	
5	1709632-04	1.0130	6.0460	5.0330	1.9950	0.9820	19.5%	
6	1709632-05	1.0310	6.0970	5.0660	1.9380	0.9070	17.9%	
7	1709632-06	1.0410	6.4920	5.4510	1.9810	0.9400	17.2%	
8	1709632-07	1.0070	6.4660	5.4590	2.0070	1.0000	18.3%	
9	1709632-07MD	0.9850	6.0820	5.0970	1.9180	0.9330	18.3%	0.1%
10	1709632-08	1.0100	6.2490	5.2390	1.9250	0.9150	17.5%	
11	1709632-09	1.0170	6.5730	5.5560	1.9750	0.9580	17.2%	
12	1709632-10	1.0250	6.4070	5.3820	2.0240	0.9990	18.6%	
13	1709632-11	1.0230	6.4810	5.4580	1.9520	0.9390	17.2%	
14	1709632-12	1.0110	6.5490	5.5380	2.0490	1.0380	18.7%	
15	1709632-13	1.0250	6.7930	5.7680	2.1770	1.1520	20.0%	
16	1709632-14	1.0150	6.6440	5.6290	2.0920	1.0770	19.1%	
17	1709632-15	1.0360	6.4450	5.4090	1.9940	0.9580	17.7%	
18	1709632-16	1.0160	6.1520	5.1360	1.9170	0.9010	17.5%	
19	1709632-17	1.0360	6.7660	5.7300	2.0310	0.9950	17.4%	
20	1709632-18	1.0070	6.6040	5.5970	2.0370	1.0300	18.4%	
21	1709632-19	1.0320	6.1370	5.1050	1.9520	0.9200	18.0%	
22	1709632-20	1.0310	6.0840	5.0530	1.8990	0.8680	17.2%	

Preparation Date: Sep 27, 2017

Batch #: 1

Analyst: CLC

Batch ID: F709456

Work Order(s): 1709632

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes
1	1709632-01	0.9980	6.3040	5.3060	1.9490	0.9510	17.9%	
2	1709632-01MD	1.0210	6.3710	5.3500	2.0170	0.9960	18.6%	3.8%
3	1709632-02	1.0030	6.3220	5.3190	1.9340	0.9310	17.5%	
4	1709632-03	1.0150	6.6570	5.6420	1.9890	0.9740	17.3%	
5	1709632-04	1.0130	6.0460	5.0330	1.9950	0.9820	19.5%	
6	1709632-05	1.0310	6.0970	5.0660	1.9380	0.9070	17.9%	
7	1709632-06	1.0410	6.4920	5.4510	1.9810	0.9400	17.2%	
8	1709632-07	1.0070	6.4660	5.4590	2.0070	1.0000	18.3%	
9	1709632-07MD	0.9850	6.0820	5.0970	1.9180	0.9330	18.3%	0.1%
10	1709632-08	1.0100	6.2490	5.2390	1.9250	0.9150	17.5%	
11	1709632-09	1.0170	6.5730	5.5560	1.9750	0.9580	17.2%	
12	1709632-10	1.0250	6.4070	5.3820	2.0240	0.9990	18.6%	
13	1709632-11	1.0230	6.4810	5.4580	1.9620	0.9390	17.2%	
14	1709632-12	1.0110	6.5490	5.5380	2.0490	1.0380	18.7%	
15	1709632-13	1.0250	6.7930	5.7680	2.1770	1.1520	20.0%	
16	1709632-14	1.0150	6.6440	5.6290	2.0920	1.0770	19.1%	
17	1709632-15	1.0360	6.4450	5.4090	1.9940	0.9580	17.7%	
18	1709632-16	1.0130	6.1520	5.1390	1.9170	0.9040	17.6%	
19	1709632-17	1.0360	6.7660	5.7300	2.0310	0.9950	17.4%	
20	1709632-18	1.0070	6.6040	5.5970	2.0370	1.0300	18.4%	
21	1709632-19	1.0320	6.1370	5.1050	1.9520	0.9200	18.0%	
22	1709632-20	1.0310	6.0840	5.0530	1.8990	0.8680	17.2%	

Failing Data Report -

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Cowley Carey 9/28/17
Analyst Reviewed By Date

Don Moxem 9/28/17
Peer Reviewed By Date

Remote Lab Total Solids Logbook

Lab Technician(s): CLC Batch: F709456 Date: 9/27/17 Page 1 of 1
 Thermometer #: 131206134 Oven #: 12 Actual temperature: 103.4 (Range 103-105°C)
 Balance #¹: 10 Start time: 1608^{9/27/17} End time²: 1032^{9/28/17} Time re-weighed³: 1110
 Client(s)/WO#: 1709632

Sample ID	Pan #	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Notes
1709632-01	A1	0.998	6.304	1.949	
F709456-DUP1	A2	1.021	6.371	2.017	SRC:1709632-01
1709632-02	A3	1.003	6.322	1.934	
1709632-03	A4	1.015	6.657	1.989	
1709632-04	A5	1.013	6.046	1.995	
1709632-05	A6	1.031	6.097	1.938	
1709632-06	A7	1.041	6.492	1.981	
1709632-07	A8	1.007	6.466	2.007	
F709456-DUP2	A9	0.985	6.082	1.918	SRC:1709632-07
1709632-08	A10	1.010	6.249	1.925	
1709632-09	A11	1.017	6.573	1.975	
1709632-10	A12	1.025	6.407	2.024	
1709632-11	A13	1.023	6.481	1.962	
1709632-12	A14	0.9 1.011	6.549	2.049	
1709632-13	A15	1.025	6.793	2.177	
1709632-14	A16	1.015	6.644	2.092	
1709632-15	A17	1.036	6.445	1.994	
1709632-16	A18	1.016	6.152	1.917	
1709632-17	A19	1.036	6.766	2.031	
1709632-18	A20	1.007	6.604	2.037	
1709632-19	A21	1.032	6.137	1.952	
1709632-20	A22	1.031	6.084	1.899	
CLC 9/27/17					

Comments:

¹The same balance must be used to weight samples before and after ovening.
²Samples must be ovened over 12 hours.
³Samples must be re-weighed within 30 minutes of oven cool down.

Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: CLC

Date: 9/28/17

Reviewer: DM

Date: 9/28/17

WO #: 1709632

Batch #: F709456

Dataset ID: TS170927-1

Reviewer Initials: DM

General Comments/Re-run requirements:

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date
<u>CLC</u>	<u>12/20/16</u>

Reviewer Initials: DM

1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

<input type="checkbox"/> Density Only - NA this section			
<input checked="" type="checkbox"/> DONE			<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>

2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
 - (i) Do sample ID(s) match?
 - (ii) Do masses/volumes match?
 - (iii) Are the analyst name, dataset ID, and preparation date listed?
 - (iv) Does the LIMS benchsheet prep date match the actual prep date?
 - (v) Volume (if other than 1 mL): _____ Can the calculated result be reproduced?

<input checked="" type="checkbox"/> Total Solids Only - NA this section			
<input type="checkbox"/> DONE			<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/>



Frontier Global Sciences

Analysis Datasheet for Total Mercury

Date of Analysis: September 29, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7129022

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	58.55 units	117.09	54.91 units	109.82	104.9 %Rec
SEQ-CAL2	1	1.00 ng/L	110.97 units	110.97	107.34 units	107.34	102.5 %Rec
SEQ-CAL3	1	5.00 ng/L	509.11 units	101.82	505.48 units	101.10	96.5 %Rec
SEQ-CAL4	1	20.00 ng/L	2093.28 units	104.66	2089.64 units	104.48	99.8 %Rec
SEQ-CAL5	1	40.00 ng/L	4040.77 units	101.02	4037.13 units	100.93	96.4 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF 104.73
 Corr. St Dev RF +/- 3.89
 Corr. RSD CF 3.7% RSD
 Uncorr. Mean RF 107.11

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	3.64 units	±1.15	0.03 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.466 ng/L	±0.162
BLK	2	3	1.064 ng/L	±0.867
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: R qh/vx

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	CAL	SEQ-IBL1	1	9/29/2017 9:05:00	76584-1.RAW	9:05:00 AM	2.64			-1.0	-0.010	-0.010	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	9/29/2017 9:09:08	76585-1.RAW	9:09:08 AM	3.38			-0.3	-0.002	-0.002	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	9/29/2017 9:13:17	76586-1.RAW	9:13:17 AM	4.89			1.3	0.012	0.012	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	9/29/2017 9:17:25	76587-1.RAW	9:17:25 AM	58.55			54.9	0.524	0.524	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	9/29/2017 9:21:33	76588-1.RAW	9:21:33 AM	110.97			107.3	1.025	1.025	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	9/29/2017 9:25:42	76589-1.RAW	9:25:42 AM	509.11			505.5	4.826	4.826	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	9/29/2017 9:29:50	76590-1.RAW	9:29:50 AM	2093.28			2089.6	19.952	19.952	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	9/29/2017 9:33:59	76591-1.RAW	9:33:59 AM	4040.77			4037.1	38.547	38.547	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	9/29/2017 9:38:07	76592-1.RAW	9:38:07 AM	510.30			506.7	4.838	4.838	ng/L	
Hg2600-3	BC	SAM	ws		9/29/2017 9:54:29	76593-1.RAW	9:54:29 AM	10.46		X	6.8	0.065	0.000	ng/L	
Hg2600-3	BC	BLK	F709411-BLK1	20	9/29/2017 9:58:38	76594-1.RAW	9:58:38 AM	11.41		1	7.8	0.074	1.485	ng/L	
Hg2600-3	BC	BLK	F709411-BLK2	20	9/29/2017 10:02:46	76595-1.RAW	10:02:46 AM	12.11		1	8.5	0.081	1.618	ng/L	
Hg2600-3	BC	BLK	F709411-BLK3	20	9/29/2017 10:06:55	76596-1.RAW	10:06:55 AM	10.42		1	6.8	0.065	1.296	ng/L	
Hg2600-3	BC	SAM	*F709411-BLK4	20	9/29/2017 10:11:03	76597-1.RAW	10:11:03 AM	9.21		1	5.6	-0.020	-0.402	ng/L	
Hg2600-3	BC	SAM	*F709411-BLK5	20	9/29/2017 10:15:12	76598-1.RAW	10:15:12 AM	7.28		1	3.6	-0.039	-0.770	ng/L	
Hg2600-3	BC	SAM	F709411-BS1	20	9/29/2017 10:19:20	76599-1.RAW	10:19:20 AM	1035.24		1	1031.6	9.777	195.532	ng/L	
Hg2600-3	BC	SAM	F709411-BSD1	20	9/29/2017 10:23:29	76600-1.RAW	10:23:29 AM	1054.25		1	1050.6	9.958	199.163	ng/L	
Hg2600-3	BC	SAM	F709411-BS2	400	9/29/2017 10:27:37	76601-1.RAW	10:27:37 AM	526.34		1	522.7	4.987	1994.877	ng/L	
Hg2600-3	BC	SAM	1709491-01	100	9/29/2017 10:31:46	76602-1.RAW	10:31:46 AM	6062.82		1	6059.2	57.839	5783.948	ng/L	
Hg2600-3	BC	SAM	ws		9/29/2017 10:36:18	76604-1.RAW	10:36:18 AM	32.17		X	28.5	0.272	0.000	ng/L	
Hg2600-3	BC	SAM	ws		9/29/2017 10:40:27	76605-1.RAW	10:40:27 AM	4.29		X	0.7	0.006	0.000	ng/L	
Hg2600-3	BC	SAM	1709491-02	400	9/29/2017 10:44:35	76603-2.RAW	10:44:35 AM	2012.64		1	2009.0	19.179	7671.472	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	9/29/2017 10:48:44	76606-1.RAW	10:48:44 AM	515.86			512.2	4.891	4.891	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	9/29/2017 10:52:52	76607-1.RAW	10:52:52 AM	8.37			4.7	0.045	0.045	ng/L	
Hg2600-3	BC	SAM	1709491-01RE1	400	9/29/2017 10:57:01	76608-1.RAW	10:57:01 AM	1202.28		1	1198.6	11.441	4576.477	ng/L	
Hg2600-3	BC	SAM	1709491-03	400	9/29/2017 11:01:09	76609-1.RAW	11:01:09 AM	584.21		1	580.6	5.540	2215.922	ng/L	
Hg2600-3	BC	SAM	1709491-04	400	9/29/2017 11:05:18	76610-1.RAW	11:05:18 AM	1476.41		1	1472.8	14.059	5623.459	ng/L	
Hg2600-3	BC	SAM	1709491-05	400	9/29/2017 11:09:26	76611-1.RAW	11:09:26 AM	1008.12		1	1004.5	9.587	3834.912	ng/L	
Hg2600-3	BC	SAM	1709491-06	400	9/29/2017 11:13:34	76612-1.RAW	11:13:34 AM	939.09		1	935.5	8.928	3571.298	ng/L	
Hg2600-3	BC	SAM	1709491-07	400	9/29/2017 11:17:43	76613-1.RAW	11:17:43 AM	1401.34		1	1397.7	13.342	5336.748	ng/L	
Hg2600-3	BC	SAM	1709491-08	400	9/29/2017 11:21:51	76614-1.RAW	11:21:51 AM	2081.96		1	2078.3	19.841	7936.217	ng/L	
Hg2600-3	BC	SAM	1709491-09	400	9/29/2017 11:26:00	76615-1.RAW	11:26:00 AM	251.29		1	247.7	2.361	944.408	ng/L	
Hg2600-3	BC	SAM	1709491-10	400	9/29/2017 11:30:08	76616-1.RAW	11:30:08 AM	983.21		1	979.6	9.349	3739.786	ng/L	
Hg2600-3	BC	SAM	1709491-11	400	9/29/2017 11:34:17	76617-1.RAW	11:34:17 AM	431.84		1	428.2	4.085	1633.963	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	9/29/2017 11:38:25	76618-1.RAW	11:38:25 AM	523.50			519.9	4.964	4.964	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	9/29/2017 11:42:33	76619-1.RAW	11:42:33 AM	12.06			8.4	0.080	0.080	ng/L	
Hg2600-3	BC	SAM	1709491-12	400	9/29/2017 11:46:42	76620-1.RAW	11:46:42 AM	938.92		1	935.3	8.927	3570.633	ng/L	
Hg2600-3	BC	SAM	1709491-13	400	9/29/2017 11:50:50	76621-1.RAW	11:50:50 AM	863.36		1	859.7	8.205	3282.062	ng/L	
Hg2600-3	BC	SAM	1709491-14	400	9/29/2017 11:54:59	76622-1.RAW	11:54:59 AM	1059.33		1	1055.7	10.076	4030.511	ng/L	
Hg2600-3	BC	SAM	1709491-15	400	9/29/2017 11:59:07	76623-1.RAW	11:59:07 AM	915.20		1	911.6	8.700	3480.058	ng/L	
Hg2600-3	BC	SAM	1709491-16	400	9/29/2017 12:03:16	76624-1.RAW	12:03:16 PM	702.77		1	699.1	6.672	2668.701	ng/L	
Hg2600-3	BC	SAM	1709491-17	400	9/29/2017 12:07:24	76625-1.RAW	12:07:24 PM	415.90		1	412.3	3.933	1573.069	ng/L	
Hg2600-3	BC	SAM	1709491-18	400	9/29/2017 12:11:33	76626-1.RAW	12:11:33 PM	709.70		1	706.1	6.738	2695.168	ng/L	
Hg2600-3	BC	SAM	1709491-19	400	9/29/2017 12:15:41	76627-1.RAW	12:15:41 PM	426.50		1	422.9	4.034	1613.572	ng/L	
Hg2600-3	BC	SAM	1709491-20	400	9/29/2017 12:19:49	76628-1.RAW	12:19:49 PM	988.77		1	985.1	9.403	3761.032	ng/L	
Hg2600-3	BC	SAM	F709411-DUP1	400	9/29/2017 12:23:58	76629-1.RAW	12:23:58 PM	571.24		1	567.6	5.416	2166.362	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	9/29/2017 12:28:06	76630-1.RAW	12:28:06 PM	517.81			514.2	4.909	4.909	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	9/29/2017 12:32:15	76631-1.RAW	12:32:15 PM	5.46			1.8	0.017	0.017	ng/L	
Hg2600-3	BC	SAM	F709411-MS1	400	9/29/2017 12:36:23	76632-1.RAW	12:36:23 PM	2355.34		1	2351.7	22.451	8980.311	ng/L	
Hg2600-3	BC	SAM	F709411-MSD1	400	9/29/2017 12:40:32	76633-1.RAW	12:40:32 PM	2338.40		1	2334.8	22.289	8915.628	ng/L	
Hg2600-3	BC	SAM	F709411-MS2	400	9/29/2017 12:44:40	76634-1.RAW	12:44:40 PM	1727.58		1	1723.9	16.457	6582.745	ng/L	
Hg2600-3	BC	SAM	F709411-MSD2	400	9/29/2017 12:48:49	76635-1.RAW	12:48:49 PM	1725.95		1	1722.3	16.441	6576.517	ng/L	
Hg2600-3	BC	SAM	F709411-DUP2	400	9/29/2017 12:52:57	76636-1.RAW	12:52:57 PM	1322.12		1	1318.5	12.585	5034.194	ng/L	
Hg2600-3	BC	BLK	F709455-BLK1	20	9/29/2017 12:57:31	76637-2.RAW	12:57:31 PM	14.32		2	10.7	0.102	2.041	ng/L	
Hg2600-3	BC	BLK	F709455-BLK2	20	9/29/2017 13:01:39	76638-1.RAW	1:01:39 PM	7.62		2	4.0	0.038	0.762	ng/L	
Hg2600-3	BC	BLK	F709455-BLK3	20	9/29/2017 13:05:48	76639-1.RAW	1:05:48 PM	5.67		2	2.0	0.019	0.388	ng/L	
Hg2600-3	BC	SAM	*F709455-BLK4	20	9/29/2017 13:09:56	76640-1.RAW	1:09:56 PM	10.69		2	7.1	0.014	0.284	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	SAM	*F709455-BLK5	20	9/29/2017 13:14:05	76641-1.RAW	1:14:05 PM	5.68	2		2.0	-0.034	-0.673	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	9/29/2017 13:18:13	76642-1.RAW	1:18:13 PM	516.19			512.6	4.894	4.894	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB4	1	9/29/2017 13:22:22	76643-1.RAW	1:22:22 PM	6.40			2.8	0.026	0.026	ng/L	
Hg2600-3	BC	SAM	1709632-01	400	9/29/2017 13:26:30	76644-1.RAW	1:26:30 PM	693.65	2		690.0	6.586	2634.287	ng/L	
Hg2600-3	BC	SAM	F709455-BS1	20	9/29/2017 13:30:38	76645-1.RAW	1:30:38 PM	534.87	2		531.2	5.019	100.382	ng/L	
Hg2600-3	BC	SAM	F709455-BSD1	20	9/29/2017 13:34:47	76646-1.RAW	1:34:47 PM	523.19	2		519.6	4.908	98.152	ng/L	
Hg2600-3	BC	SAM	F709455-BS2	400	9/29/2017 13:41:56	76647-1.RAW	1:41:56 PM	629.33	2		625.7	5.972	2388.640	ng/L	
Hg2600-3	BC	SAM	1709632-02	400	9/29/2017 13:48:55	76648-1.RAW	1:48:55 PM	524.07	2		520.4	4.967	1986.627	ng/L	
Hg2600-3	BC	SAM	1709632-03	400	9/29/2017 13:53:03	76649-1.RAW	1:53:03 PM	1217.01	2		1213.4	11.583	4633.120	ng/L	
Hg2600-3	BC	SAM	1709632-04	400	9/29/2017 13:57:12	76650-1.RAW	1:57:12 PM	1073.12	2		1069.5	10.209	4083.582	ng/L	
Hg2600-3	BC	SAM	1709632-05	400	9/29/2017 14:01:20	76651-1.RAW	2:01:20 PM	455.856028	2		452.2	4.315	1726.088	ng/L	
Hg2600-3	BC	SAM	1709632-06	400	9/29/2017 14:05:29	76652-1.RAW	2:05:29 PM	666.26	2		662.6	6.324	2529.658	ng/L	
Hg2600-3	BC	SAM	1709632-07	400	9/29/2017 14:09:37	76653-1.RAW	2:09:37 PM	6355.87	2		6352.2	60.650	24259.813	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	9/29/2017 14:13:46	76654-1.RAW	2:13:46 PM	555.65			552.0	5.271	5.271	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	9/29/2017 14:17:54	76655-1.RAW	2:17:54 PM	11.33			7.7	0.073	0.073	ng/L	
Hg2600-3	BC	SAM	1709632-08	400	9/29/2017 14:22:02	76656-1.RAW	2:22:02 PM	647.92	2		644.3	6.149	2459.613	ng/L	
Hg2600-3	BC	SAM	1709632-09	400	9/29/2017 14:26:11	76657-1.RAW	2:26:11 PM	1876.08	2		1872.4	17.876	7150.316	ng/L	
Hg2600-3	BC	SAM	1709632-10	400	9/29/2017 14:30:19	76658-1.RAW	2:30:19 PM	813.68	2		810.0	7.732	3092.708	ng/L	
Hg2600-3	BC	SAM	1709632-11	400	9/29/2017 14:34:28	76659-1.RAW	2:34:28 PM	926.39	2		922.8	8.808	3523.193	ng/L	
Hg2600-3	BC	SAM	1709632-12	400	9/29/2017 14:38:36	76660-1.RAW	2:38:36 PM	481.25	2		477.6	4.558	1823.068	ng/L	
Hg2600-3	BC	SAM	1709632-13	400	9/29/2017 14:42:45	76661-1.RAW	2:42:45 PM	854.36	2		850.7	8.120	3248.085	ng/L	
Hg2600-3	BC	SAM	1709632-14	400	9/29/2017 14:46:53	76662-1.RAW	2:46:53 PM	638.68	2		635.0	6.061	2424.349	ng/L	
Hg2600-3	BC	SAM	1709632-15	400	9/29/2017 14:51:02	76663-1.RAW	2:51:02 PM	705.13	2		701.5	6.695	2678.125	ng/L	
Hg2600-3	BC	SAM	1709632-16	400	9/29/2017 14:55:10	76664-1.RAW	2:55:10 PM	824.92	2		821.3	7.839	3135.635	ng/L	
Hg2600-3	BC	SAM	1709632-17	400	9/29/2017 14:59:18	76665-1.RAW	2:59:18 PM	676.20	2		672.6	6.419	2567.626	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	9/29/2017 15:03:27	76666-1.RAW	3:03:27 PM	530.57			526.9	5.031	5.031	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	9/29/2017 15:07:35	76667-1.RAW	3:07:35 PM	10.51			6.9	0.066	0.066	ng/L	
Hg2600-3	BC	SAM	1709632-18	400	9/29/2017 15:11:44	76668-1.RAW	3:11:44 PM	1794.87	2		1791.2	17.100	6840.137	ng/L	
Hg2600-3	BC	SAM	1709632-19	400	9/29/2017 15:15:52	76669-1.RAW	3:15:52 PM	2460.08	2		2456.4	23.452	9380.760	ng/L	
Hg2600-3	BC	SAM	1709632-20	400	9/29/2017 15:20:01	76670-1.RAW	3:20:01 PM	941.20	2		937.6	8.949	3579.765	ng/L	
Hg2600-3	BC	SAM	1709632-07RE1	1000	9/29/2017 15:24:09	76671-1.RAW	3:24:09 PM	2372.36	2		2368.7	22.616	22615.928	ng/L	
Hg2600-3	BC	SAM	F709455-DUP1	400	9/29/2017 15:28:17	76672-1.RAW	3:28:17 PM	701.39	2		697.8	6.660	2663.839	ng/L	
Hg2600-3	BC	SAM	F709455-MS1	400	9/29/2017 15:32:26	76673-1.RAW	3:32:26 PM	2045.49	2		2041.9	19.493	7797.316	ng/L	
Hg2600-3	BC	SAM	F709455-MSD1	400	9/29/2017 15:36:34	76674-1.RAW	3:36:34 PM	1902.55	2		1898.9	18.128	7251.386	ng/L	
Hg2600-3	BC	SAM	F709455-MS2	400	9/29/2017 15:40:43	76675-1.RAW	3:40:43 PM	8136.00	2		8132.4	77.647	31058.601	ng/L	
Hg2600-3	BC	SAM	F709455-MSD2	400	9/29/2017 15:44:51	76676-1.RAW	3:44:51 PM	7972.63	2		7969.0	76.087	30434.676	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	9/29/2017 15:49:00	76677-1.RAW	3:49:00 PM	552.73			549.1	5.243	5.243	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	9/29/2017 15:53:08	76678-1.RAW	3:53:08 PM	22.54			18.9	0.181	0.181	ng/L	
Hg2600-3	BC	SAM	WS		9/29/2017 16:00:29	76679-2.RAW	4:00:29 PM	7929.31	X		7925.7	75.676	0.000	ng/L	
Hg2600-3	BC	SAM	F709455-MS3	1000	9/29/2017 16:04:38	76680-1.RAW	4:04:38 PM	3543.03	2		3539.4	33.794	33793.663	ng/L	
Hg2600-3	BC	SAM	F709455-MSD3	1000	9/29/2017 16:08:46	76681-1.RAW	4:08:46 PM	3433.26	2		3429.6	32.746	32745.540	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	9/29/2017 16:12:55	76682-1.RAW	4:12:55 PM	542.59			539.0	5.146	5.146	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8	1	9/29/2017 16:17:03	76683-1.RAW	4:17:03 PM	15.96			12.3	0.118	0.118	ng/L	
Hg2600-3	BC	SAM	CLEAN		9/29/2017 16:56:00	76684-1.RAW	4:56:00 PM	35.89	X		32.2	0.308	0.000	ng/L	
Hg2600-3	BC	SAM	WS		9/29/2017 17:00:08	76685-1.RAW	5:00:08 PM	5.57	X		1.9	0.018	0.000	ng/L	
Hg2600-3	BC	SAM	F709455-MS4	2500	9/29/2017 17:04:17	76686-1.RAW	5:04:17 PM	3064.16	2		3060.5	29.222	73054.842	ng/L	
Hg2600-3	BC	SAM	F709455-MSD4	2500	9/29/2017 17:08:25	76687-1.RAW	5:08:25 PM	3052.48	2		3048.8	29.110	72776.122	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV9	1	9/29/2017 17:12:34	76688-1.RAW	5:12:34 PM	524.15			520.5	4.970	4.970	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB9	1	9/29/2017 17:16:42	76689-1.RAW	5:16:42 PM	15.58			11.9	0.114	0.114	ng/L	

TotalMercury EPA1631
 Operat: BC
 Workst: THg2500
 Method: ### R:
 Descrp: THg25003-170929-1

Blanks: 3.6355
 CalibFa: 104.73
 Status: 0.9999 R²:
 170929-1

Conc = (Area-3.6355
 QC Warnings:6/QC E
 0.9997

Run Date: 9/29/2017
 Run Time: 16:53:08

Blank SD: 1.147052466
 Blank RSD%: 31.55178032
 CF SD: 3.886456733
 CF RSD%: 3.710854284

SampleID	Location	Rinses	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ref)	Flags	RunCount	Comment
CLEAN				0.00		2.26				76579-1.RAW	8:45:35	237.08	Clean	OK	1	
CLEAN										76580-1.RAW	8:48:26	0.00	Clean	NP	1	
WS				3.64	0.00					76581-1.RAW	8:52:34	2.26	Sample	OK	1	
WS				3.64	0.00					76582-1.RAW	8:56:43	1.87	Sample	OK	1	
WS				3.64	0.00					76583-1.RAW	9:00:51	0.75	Sample	OK	1	
SEQ-IBL1	A1		1	0.00	0.03					76584-1.RAW	9:05:00	2.64	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.03					76585-1.RAW	9:09:08	3.38	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.05					76586-1.RAW	9:13:17	4.89	Sample	OK	1	
SEQ-CAL1	A4		1	3.64	0.52		104.86			76587-1.RAW	9:17:25	58.55	Sample	OK	1	
SEQ-CAL2	A5		1	3.64	1.02		102.49			76588-1.RAW	9:21:33	110.97	Sample	OK	1	
SEQ-CAL3	A6		1	3.64	4.83		96.53			76589-1.RAW	9:25:42	509.11	Sample	OK	1	
SEQ-CAL4	A7		1	3.64	19.95		99.76			76590-1.RAW	9:29:50	2093.28	Sample	OK	1	
SEQ-CAL5	A8		1	3.64	38.55		96.37			76591-1.RAW	9:33:59	4040.77	Sample	FB	1	
SEQ-ICV1	A9		1	3.64	4.84		96.75			76592-1.RAW	9:38:07	510.30	Sample	OK	1	
ws				3.64	0.07					76593-1.RAW	9:54:29	10.46	Sample	OK	1	stalled
F709411-BLK1	A10		20	3.64	1.48					76594-1.RAW	9:58:38	11.41	Sample	OK	1	
F709411-BLK2	A11		20	3.64	1.62					76595-1.RAW	10:02:46	12.11	Sample	OK	1	
F709411-BLK3	A12		20	3.64	1.30					76596-1.RAW	10:06:55	10.42	Sample	OK	1	
*F709411-BLK4	B1		20	3.64	1.06					76597-1.RAW	10:11:03	9.21	Sample	OK	1	
*F709411-BLK5	B2		20	3.64	0.70					76598-1.RAW	10:15:12	7.28	Sample	OK	1	
F709411-BS1	B3		20	3.64	197.00					76599-1.RAW	10:19:20	1035.24	Sample	OK	1	
F709411-BSD1	B4		20	3.64	200.63					76600-1.RAW	10:23:29	1054.25	Sample	OK	1	
F709411-BS2	B5		400	3.64	1996.34					76601-1.RAW	10:27:37	526.34	Sample	OK	1	
1709491-01	B6		100	3.64	5785.41					76602-1.RAW	10:31:46	6062.82	Sample	FB	1	
ws				3.64	0.27					76604-1.RAW	10:36:18	32.17	Sample	OK	1	
ws				3.64	0.01					76605-1.RAW	10:40:27	4.29	Sample	OK	1	
1709491-02	B7		400	3.64	7672.94					76603-2.RAW	10:44:35	2012.64	Sample	OK	1	
SEQ-CCV1	B8		1	3.64	4.89		97.82			76606-1.RAW	10:48:44	515.86	Sample	OK	1	
SEQ-CCB1	B9		1	3.64	0.05		0.00			76607-1.RAW	10:52:52	8.37	Sample	OK	1	
1709491-01RE1	B10		400	3.64	4577.94					76608-1.RAW	10:57:01	1202.28	Sample	OK	1	
1709491-03	B11		400	3.64	2217.39					76609-1.RAW	11:01:09	584.21	Sample	OK	1	
1709491-04	B12		400	3.64	5624.92					76610-1.RAW	11:05:18	1476.41	Sample	OK	1	
1709491-05	C1		400	3.64	3836.38					76611-1.RAW	11:09:26	1008.12	Sample	OK	1	
1709491-06	C2		400	3.64	3572.76					76612-1.RAW	11:13:34	939.09	Sample	OK	1	
1709491-07	C3		400	3.64	5338.21					76613-1.RAW	11:17:43	1401.34	Sample	OK	1	
1709491-08	C4		400	3.64	7937.68					76614-1.RAW	11:21:51	2081.96	Sample	OK	1	
1709491-09	C5		400	3.64	945.87					76615-1.RAW	11:26:00	251.29	Sample	OK	1	
1709491-10	C6		400	3.64	3741.25					76616-1.RAW	11:30:08	983.21	Sample	OK	1	
1709491-11	C7		400	3.64	1635.43					76617-1.RAW	11:34:17	431.84	Sample	OK	1	
SEQ-CCV2	C8		1	3.64	4.96		99.27			76618-1.RAW	11:38:25	523.50	Sample	OK	1	
SEQ-CCB2	C9		1	3.64	0.08		0.00			76619-1.RAW	11:42:33	12.06	Sample	OK	1	
1709491-12	C10		400	3.64	3572.10					76620-1.RAW	11:46:42	938.82	Sample	OK	1	
1709491-13	C11		400	3.64	3283.53					76621-1.RAW	11:50:50	863.36	Sample	OK	1	
1709491-14	C12		400	3.64	4031.98					76622-1.RAW	11:54:59	1059.33	Sample	OK	1	
1709491-15	D1		400	3.64	3481.52					76623-1.RAW	11:59:07	915.20	Sample	OK	1	
1709491-16	D2		400	3.64	2670.17					76624-1.RAW	12:03:16	702.77	Sample	OK	1	
1709491-17	D3		400	3.64	1574.53					76625-1.RAW	12:07:24	415.90	Sample	OK	1	
1709491-18	D4		400	3.64	2896.63					76626-1.RAW	12:11:33	709.70	Sample	OK	1	
1709491-19	D5		400	3.64	1615.04					76627-1.RAW	12:15:41	426.50	Sample	OK	1	
1709491-20	D6		400	3.64	3762.50					76628-1.RAW	12:19:49	888.77	Sample	OK	1	
F709411-DUP1	D7		400	3.64	2167.83					76629-1.RAW	12:23:58	571.24	Sample	OK	1	
SEQ-CCV3	D8		1	3.64	4.91		98.19			76630-1.RAW	12:28:06	517.81	Sample	OK	1	
SEQ-CCB3	D9		1	3.64	0.02		0.00			76631-1.RAW	12:32:15	5.46	Sample	OK	1	
F709411-MS1	D10		400	3.64	8981.78		882776.24			76632-1.RAW	12:36:23	2355.34	Sample	OK	1	
F709411-MSD1	D11		400	3.64	8917.09					76633-1.RAW	12:40:32	2338.40	Sample	OK	1	
F709411-MS2	D12		400	3.64	6584.21			73.82		76634-1.RAW	12:44:40	1727.58	Sample	OK	1	
F709411-MSD2	A1		400	3.64	6577.98					76635-1.RAW	12:48:49	1725.95	Sample	OK	1	
F709411-DUP2	A2		400	3.64	5035.86					76636-1.RAW	12:52:57	1322.12	Sample	OK	1	
F709455-BLK1	A3		20	3.64	2.04					76637-2.RAW	12:57:31	14.32	Sample	OK	1	
F709455-BLK2	A4		20	3.64	0.76					76638-1.RAW	13:01:39	7.62	Sample	OK	1	
F709455-BLK3	A5		20	3.64	0.39					76639-1.RAW	13:05:48	5.67	Sample	OK	1	
*F709455-BLK4	A6		20	3.64	1.36					76640-1.RAW	13:09:56	10.89	Sample	OK	1	
*F709455-BLK5	A7		20	3.64	0.39					76641-1.RAW	13:14:05	5.68	Sample	OK	1	
SEQ-CCV4	A8		1	3.64	4.89		97.88			76642-1.RAW	13:18:13	516.19	Sample	OK	1	
SEQ-CCB4	A9		1	3.64	0.03		0.00			76643-1.RAW	13:22:22	6.40	Sample	OK	1	

1709632-01	A10	400	3.64	2635.35		76644-1.RAW	13:28:30	693.65	Sample	OK	1
F709455-BS1	A11	20	3.64	101.45		76645-1.RAW	13:30:38	534.87	Sample	OK	1
F709455-BSD1	A12	20	3.64	99.22		76646-1.RAW	13:34:47	523.19	Sample	OK	1
F709455-BS2	B1	400	3.64	2389.70		76647-1.RAW	13:41:58	629.33	Sample	OK	1
1709632-02	B2	400	3.64	1987.69		76648-1.RAW	13:48:55	524.07	Sample	OK	1
1709632-03	B3	400	3.64	4634.18		76649-1.RAW	13:53:03	1217.01	Sample	OK	1
1709632-04	B4	400	3.64	4084.65		76650-1.RAW	13:57:12	1073.12	Sample	OK	1
1709632-05	B5	400	3.64	1727.15		76651-1.RAW	14:01:20	455.86	Sample	OK	1
1709632-06	B6	400	3.64	2530.72		76652-1.RAW	14:05:29	666.26	Sample	OK	1
1709632-07	B7	400	3.64	24260.88		76653-1.RAW	14:09:37	6355.87	Sample	FB	1
SEQ-CCV5	B8	1	3.64	5.27	105.41	76654-1.RAW	14:13:46	555.65	Sample	OK	1
SEQ-CCB5	B9	1	3.64	0.07	0.00	76655-1.RAW	14:17:54	11.33	Sample	OK	1
1709632-08	B10	400	3.64	2460.68		76656-1.RAW	14:22:02	647.92	Sample	OK	1
1709632-09	B11	400	3.64	7151.38		76657-1.RAW	14:26:11	1876.06	Sample	OK	1
1709632-10	B12	400	3.64	3093.77		76658-1.RAW	14:30:19	813.68	Sample	OK	1
1709632-11	C1	400	3.64	3524.26		76659-1.RAW	14:34:28	926.39	Sample	OK	1
1709632-12	C2	400	3.64	1824.13		76660-1.RAW	14:38:36	481.25	Sample	OK	1
1709632-13	C3	400	3.64	3249.15		76661-1.RAW	14:42:45	854.36	Sample	OK	1
1709632-14	C4	400	3.64	2425.41		76662-1.RAW	14:46:53	638.68	Sample	OK	1
1709632-15	C5	400	3.64	2679.19		76663-1.RAW	14:51:02	705.13	Sample	OK	1
1709632-16	C6	400	3.64	3136.70		76664-1.RAW	14:55:10	824.92	Sample	OK	1
1709632-17	C7	400	3.64	2568.69		76665-1.RAW	14:59:18	676.20	Sample	OK	1
SEQ-CCV6	C8	1	3.64	5.03	100.63	76666-1.RAW	15:03:27	530.57	Sample	OK	1
SEQ-CCB6	C9	1	3.64	0.07	0.00	76667-1.RAW	15:07:35	10.51	Sample	OK	1
1709632-18	C10	400	3.64	6841.20		76668-1.RAW	15:11:44	1794.87	Sample	OK	1
1709632-19	C11	400	3.64	9381.82		76669-1.RAW	15:15:52	2460.06	Sample	OK	1
1709632-20	C12	400	3.64	3580.83		76670-1.RAW	15:20:01	941.20	Sample	OK	1
1709632-07RE1	D1	1000	3.64	22616.99		76671-1.RAW	15:24:09	2372.36	Sample	OK	1
F709455-DUP1	D2	400	3.64	2664.90		76672-1.RAW	15:28:17	701.39	Sample	OK	1
F709455-MS1	D3	400	3.64	7798.38	292.52	76673-1.RAW	15:32:26	2045.49	Sample	OK	1
F709455-MSD1	D4	400	3.64	7252.45		76674-1.RAW	15:36:34	1902.55	Sample	OK	1
F709455-MS2	D5	400	3.64	31059.66	428.15	76675-1.RAW	15:40:43	8136.00	Sample	OK	1
F709455-MSD2	D6	400	3.64	30435.74		76676-1.RAW	15:44:51	7972.63	Sample	FB	1
SEQ-CCV7	D7	1	3.64	5.24	104.86	76677-1.RAW	15:49:00	552.73	Sample	OK	1
SEQ-CCB7	D8	1	3.64	0.18	0.00	76678-1.RAW	15:53:08	22.54	Sample	OK	1
WS			3.64	75.68		76679-2.RAW	16:00:29	7929.31	Sample	FB	1
F709455-MS3	D9	1000	3.64	33794.73	42954.48	76680-1.RAW	16:04:38	3543.03	Sample	OK	1
F709455-MSD3	D10	1000	3.64	32746.60		76681-1.RAW	16:08:46	3433.26	Sample	OK	1
SEQ-CCV8	D11	1	3.64	5.15	102.92	76682-1.RAW	16:12:55	542.59	Sample	OK	1
SEQ-CCB8	D12	1	3.64	0.12	0.00	76683-1.RAW	16:17:03	16.96	Sample	OK	1
CLEAN			0.00	0.34		76684-1.RAW	16:56:00	35.89	Clean	OK	1
WS			3.64	0.02		76685-1.RAW	17:00:08	5.57	Sample	OK	1
F709455-MS4	A1	2500	3.64	73055.91	#####	76686-1.RAW	17:04:17	3064.16	Sample	FB	1
F709455-MSD4	A2	2500	3.64	72777.19		76687-1.RAW	17:08:25	3052.48	Sample	OK	1
SEQ-CCV9	A3	1	3.64	4.97	99.40	76688-1.RAW	17:12:34	524.15	Sample	OK	1
SEQ-CCB9	A4	1	3.64	0.11	0.00	76689-1.RAW	17:16:42	15.58	Sample	OK	1

ANALYSIS SEQUENCE

7129022

Instrument: Hg2600-3 ✓

Calibration ID: UNASSIGNED

Analyzed: 9/29/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7129022-IBL1 ✓	QC	1			
7129022-IBL2 ✓	QC	2			
7129022-IBL3 ✓	QC	3			
7129022-CAL1 ✓	QC	4	1704505	✓	
7129022-CAL2 ✓	QC	5	1704506	✓	
7129022-CAL3 ✓	QC	6	1704507	✓	
7129022-CAL4 ✓	QC	7	1704508	✓	
7129022-CAL5 ✓	QC	8	1704509	✓	
7129022-ICV1 ✓	QC	9	1705628	✓	
F709411-BLK1 ✓	QC	10			
F709411-BLK2 ✓	QC	11			
F709411-BLK3 ✓	QC	12			
F709411-BLK4 ✓	QC	13			
F709411-BLK5 ✓	QC	14			
F709411-BS1 ✓	QC	15			
F709411-BSD1 ✓	QC	16			
F709411-BS2 ✓	QC	17			
1709491-01 ✓	Hg-CVAFS-T-7030	18			
1709491-02 ✓	Hg-CVAFS-T-7030	19			
7129022-CCV1 ✓	QC	20	1705628	✓	
7129022-CCB1 ✓	QC	21			
1709491-01RE1 ✓	Hg-CVAFS-T-7030	22			Added 9/29/2017 by DM2
1709491-03 ✓	Hg-CVAFS-T-7030	23			
1709491-04 ✓	Hg-CVAFS-T-7030	24			
1709491-05 ✓	Hg-CVAFS-T-7030	25			
1709491-06 ✓	Hg-CVAFS-T-7030	26			
1709491-07 ✓	Hg-CVAFS-T-7030	27			
1709491-08 ✓	Hg-CVAFS-T-7030	28			
1709491-09 ✓	Hg-CVAFS-T-7030	29			
1709491-10 ✓	Hg-CVAFS-T-7030	30			
1709491-11 ✓	Hg-CVAFS-T-7030	31			
7129022-CCV2 ✓	QC	32	1705628	✓	
7129022-CCB2 ✓	QC	33			
1709491-12 ✓	Hg-CVAFS-T-7030	34			
1709491-13 ✓	Hg-CVAFS-T-7030	35			

Due Date: 10/17/2017

ANALYSIS SEQUENCE

7I29022

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 9/29/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709491-14 ✓	Hg-CVAFS-T-7030	36			
1709491-15 ✓	Hg-CVAFS-T-7030	37			
1709491-16 ✓	Hg-CVAFS-T-7030	38			
1709491-17 ✓	Hg-CVAFS-T-7030	39			
1709491-18 ✓	Hg-CVAFS-T-7030	40			
1709491-19 ✓	Hg-CVAFS-T-7030	41			
1709491-20 ✓	Hg-CVAFS-T-7030	42			
F709411-DUP1 ✓	QC	43			
7I29022-CCV3 ✓	QC	44	1705628	✓	
7I29022-CCB3 ✓	QC	45			
F709411-MS1 ✓	QC	46			
F709411-MSD1 ✓	QC	47			
F709411-MS2 ✓	QC	48			
F709411-MSD2 ✓	QC	49			
F709411-DUP2 ✓	QC	50			
F709455-BLK1 ✓	QC	51			
F709455-BLK2 ✓	QC	52			
F709455-BLK3 ✓	QC	53			
F709455-BLK4 ✓	QC	54			
F709455-BLK5 ✓	QC	55			
7I29022-CCV4 ✓	QC	56	1705628		
7I29022-CCB4 ✓	QC	57			
1709632-01 ✓	Hg-CVAFS-T-7030	58			
F709455-BS1 ✓	QC	59			
F709455-BSD1 ✓	QC	60			
F709455-BS2 ✓	QC	61			
1709632-02 ✓	Hg-CVAFS-T-7030	62			
1709632-03 ✓	Hg-CVAFS-T-7030	63			
1709632-04 ✓	Hg-CVAFS-T-7030	64			
1709632-05 ✓	Hg-CVAFS-T-7030	65			
1709632-06 ✓	Hg-CVAFS-T-7030	66			
1709632-07 ✓	Hg-CVAFS-T-7030	67		✓	
7I29022-CCV5	QC	68	1705628		
7I29022-CCB5 ✓	QC	69			
1709632-08 ✓	Hg-CVAFS-T-7030	70			

Due Date: 10/17/2017

ANALYSIS SEQUENCE

7I29022

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 9/29/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709632-09 ✓	Hg-CVAFS-T-7030	71			
1709632-10 ✓	Hg-CVAFS-T-7030	72			
1709632-11 ✓	Hg-CVAFS-T-7030	73			
1709632-12 ✓	Hg-CVAFS-T-7030	74			
1709632-13 ✓	Hg-CVAFS-T-7030	75			
1709632-14 ✓	Hg-CVAFS-T-7030	76			
1709632-15 ✓	Hg-CVAFS-T-7030	77			
1709632-16 ✓	Hg-CVAFS-T-7030	78			
1709632-17 ✓	Hg-CVAFS-T-7030	79			
7I29022-CCV6 ✓	QC	80	1705628		
7I29022-CCB6 ✓	QC	81			
1709632-18 ✓	Hg-CVAFS-T-7030	82			
1709632-19 ✓	Hg-CVAFS-T-7030	83			
1709632-20 ✓	Hg-CVAFS-T-7030	84			
1709632-07RE1 ✓	Hg-CVAFS-T-7030	85			Added 9/29/2017 by DM2
F709455-DUP1 ✓	QC	86			
F709455-MS1 ✓	QC	87			
F709455-MSD1 ✓	QC	88			
F709455-MS2 ✓	QC	89			
F709455-MSD2 ✓	QC	90			
7I29022-CCV7 ✓	QC	91	1705628		
7I29022-CCB7 ✓	QC	92			
F709455-MS3 ✓	QC	93			
F709455-MSD3 ✓	QC	94			
7I29022-CCV8 ✓	QC	95	1705628		
7I29022-CCB8 ✓	QC	96			
F709455-MS4 ✓	QC	97			
F709455-MSD4 ✓	QC	98			
7I29022-CCV9 ✓	QC	99	1705628		
7I29022-CCB9 ✓	QC	100			

Samples Loaded By _____

Date _____

Data Processed By Don M. [Signature]

Date 9/29/17

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709411

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709411-BLK1	Blank	0.5	40					
F709411-BLK2	Blank	0.5	40					
F709411-BLK3	Blank	0.5	40					
F709411-BLK4	Pre homog blank	0.512	40					
F709411-BLK5	Post homog blank	0.554	40					
F709411-BS1	LCS	0.5	40	1704421	40			
F709411-BS2	DORM4	0.248	40	1703305	248			
F709411-BSD1	LCS Dup	0.5	40	1704421	40			
F709411-DUP1	Duplicate [1709491-01RE1]	0.538	40					
F709411-DUP2	Duplicate [1709491-01RE1]	0.546	40					AD
F709411-MS1	Matrix Spike [1709491-01RE1]	0.543	40	1705554	200			
F709411-MS2	Matrix Spike [1709491-11]	0.533	40	1705554	200			
F709411-MSD1	Matrix Spike Dup [1709491-01RE1]	0.536	40	1705554	200			
F709411-MSD2	Matrix Spike Dup [1709491-11]	0.509	40	1705554	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704516	THg Washstation (0.5% BrCl)	
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1705602	70/30 Digestion Acid	17-Mar-18 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705777	5% BrCl	
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00

PREPARATION BENCH SHEET

F709411

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709491-01	L9-45_17LT015_091317_LOB_01_TA	0.546	40	QC	-	-	MD/MS/MSD	
1709491-01RE1	L9-45_17LT015_091317_LOB_01_TA	0.546	40	QC	-	-	MD/MS/MSD Added 9/29/2017 by DV	Added 9/29/2017 by DM2
1709491-02	L9-45_17LT015_091317_LOB_02_TA	0.518	40	-	-	-		
1709491-03	L9-45_17LT015_091317_LOB_03_TA	0.577	40	-	-	-		
1709491-04	L9-45_17LT015_091317_LOB_04_TA	0.576	40	-	-	-		
1709491-05	L9-45_17LT015_091317_LOB_05_TA	0.575	40	-	-	-		
1709491-06	L9-45_17LT015_091317_LOB_06_TA	0.534	40	-	-	-		
1709491-07	L9-45_17LT015_091317_LOB_07_TA	0.546	40	-	-	-		
1709491-08	L9-45_17LT015_091317_LOB_08_TA	0.524	40	-	-	-		
1709491-09	L9-45_17LT016_091317_LOB_09_TA	0.582	40	-	-	-		
1709491-10	L9-45_17LT016_091317_LOB_10_TA	0.539	40	-	-	-		
1709491-11	L9-45_17LT016_091317_LOB_11_TA	0.512	40	QC	-	-	MS/MSD	
1709491-12	L9-45_17LT016_091317_LOB_12_TA	0.503	40	-	-	-		
1709491-13	L9-45_17LT016_091317_LOB_13_TA	0.579	40	-	-	-		
1709491-14	L9-45_17LT016_091317_LOB_14_TA	0.511	40	-	-	-		
1709491-15	L9-45_17LT017_091317_LOB_15_TA	0.598	40	-	-	-		
1709491-16	L9-45_17LT017_091317_LOB_16_TA	0.57	40	-	-	-		
1709491-17	L9-45_17LT017_091317_LOB_17_TA	0.551	40	-	-	-		
1709491-18	L9-45_17LT017_091317_LOB_18_TA	0.582	40	-	-	-		

Due Date: 10/17/2017

PREPARATION BENCH SHEET

F709411

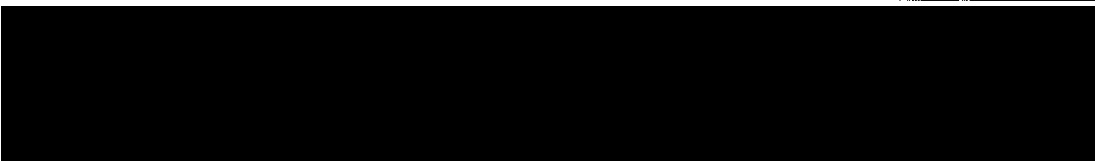
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

1709491-19	L9-45_17LT018_091317_LOB_19_TA	0.546	40	-	-	-		
1709491-20	L9-45_17LT018_091317_LOB_20_TA	0.589	40	-	-	-		



BC 9/24/17
2600-3

PREPARATION BENCH SHEET

F709411

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709411-BLK1	Blank	0.5	40					2.5µL -
F709411-BLK2	Blank	0.5	40					2.5µL -
F709411-BLK3	Blank	0.5	40					2.5µL -
F709411-BLK4	Pre homog blank	0.512	40					2.5µL -
F709411-BLK5	Post homog blank	0.554	40					2.5µL -
F709411-BS1	LCS	0.5	40	1704421	40			2.5µL -
F709411-BS2	DORM4	0.248	40	1703305	248			125µL -
F709411-BSD1	LCS Dup	0.5	40	1704421	40			2.5µL -
F709411-DUP1	Duplicate [1709491-01]	0.538	40					125µL -
F709411-MS1	Matrix Spike [1709491-01]	0.543	40	1705554	200			125µL -
F709411-MS2	Matrix Spike [1709491-11]	0.533	40	1705554	200			125µL -
F709411-MSD1	Matrix Spike Dup [1709491-01]	0.536	40	1705554	200			125µL -
F709411-MSD2	Matrix Spike Dup [1709491-11]	0.509	40	1705554	200			125µL -

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1705602	70/30 Digestion Acid	17-Mar-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705777	5% BrCl	22-Jan-18 00:00

DUP 2 (AD) 1709491-01 125µL

2.5 µL = 20X
125 = 400X

1705979

1704516

1704517

1705611

1703187

Due Date: 10/17/2017

PREPARATION BENCH SHEET

Bc 9/29/17
2600-3

F709411

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709491-01	L9-45_17LT015_091317_LOB_01_TA	0.546	40	QC	-	-	MD/MS/MSD 500 uL → 125 uL	
1709491-02	L9-45_17LT015_091317_LOB_02_TA	0.518	40	-	-	-	125 uL ✓	
1709491-03	L9-45_17LT015_091317_LOB_03_TA	0.577	40	-	-	-	125 uL ✓	
1709491-04	L9-45_17LT015_091317_LOB_04_TA	0.576	40	-	-	-	125 uL ✓	
1709491-05	L9-45_17LT015_091317_LOB_05_TA	0.575	40	-	-	-	175 uL ✓	
1709491-06	L9-45_17LT015_091317_LOB_06_TA	0.534	40	-	-	-	125 uL ✓	
1709491-07	L9-45_17LT015_091317_LOB_07_TA	0.546	40	-	-	-	125 uL ✓	
1709491-08	L9-45_17LT015_091317_LOB_08_TA	0.524	40	-	-	-	125 uL ✓	
1709491-09	L9-45_17LT016_091317_LOB_09_TA	0.582	40	-	-	-	125 uL ✓	
1709491-10	L9-45_17LT016_091317_LOB_10_TA	0.539	40	-	-	-	125 uL ✓	
1709491-11	L9-45_17LT016_091317_LOB_11_TA	0.512	40	QC	-	-	MS/MSD 125 uL ✓	
1709491-12	L9-45_17LT016_091317_LOB_12_TA	0.503	40	-	-	-	125 uL ✓	
1709491-13	L9-45_17LT016_091317_LOB_13_TA	0.579	40	-	-	-	125 uL ✓	
1709491-14	L9-45_17LT016_091317_LOB_14_TA	0.511	40	-	-	-	125 uL ✓	
1709491-15	L9-45_17LT017_091317_LOB_15_TA	0.598	40	-	-	-	125 uL ✓	
1709491-16	L9-45_17LT017_091317_LOB_16_TA	0.57	40	-	-	-	125 uL ✓	
1709491-17	L9-45_17LT017_091317_LOB_17_TA	0.551	40	-	-	-	125 uL ✓	
1709491-18	L9-45_17LT017_091317_LOB_18_TA	0.582	40	-	-	-	125 uL ✓	
1709491-19	L9-45_17LT018_091317_LOB_19_TA	0.546	40	-	-	-	125 uL ✓	

Due Date: 10/17/2017

PREPARATION BENCH SHEET

BC 9/29/17
2600-3

F709411

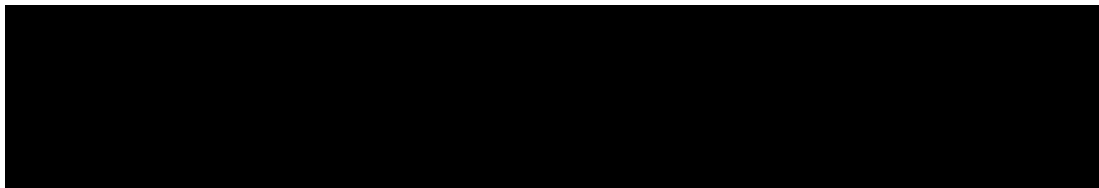
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/26/2017

1709491-20	L9-45_17LT018_091317_LOB_20_TA	0.589	40	-	-	-	125-✓-	
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Technician: BC/AMB Batch#: F709411 Date: 9/26/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: AMB 9-26-17
 Balance#: 1010 Calibrated? Yes No Therm.#: 14545 Vial Type: Glass Teflon
 Calibrated? Yes No
 *Time in: 1845 Actual Temp. (raw): 76.5 °C w/ CF: 77.1 °C
 Time out: 2045 Actual Temp. (raw): timer °C w/ CF: timer °C
 *Time in can't begin before target temperature is reached

Final vol.: 40 mL (LIMS ID: 1705777) Spike vol.: 200 µL (LIMS ID: 1705554)
 Spike Witness: DA 9/26/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 04 07852 Calibration Date: 9/26/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705602 Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623
 Glass Vial # 00067892 Boiling Chip lot # 1702551 *Hotblock Position: H5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F709411-BIK1	0.501	23	F709411-MS2	0.533	BS2
2	F709411-BIK2	0.525	24	F709411-MSD2	0.509	Dorm 4
3	F709411-BIK3	0.545	25	1709491-12	0.503	1703305
4	F709411-BIK4	0.512	26	1709491-13	0.579	Comments
5	F709411-BIK5	0.554	27	1709491-14	0.511	
6	F709411-BS1	0.560	28	1709491-15	0.598	1709491-01
7	F709411-BSD1	0.510	29	1709491-16	0.570	DUP, MS, MSD1
8	F709411-BS2	0.248	30	1709491-17	0.551	
9	1709491-DT01	0.546	31	1709491-18	0.582	1709491-11
10	F709411-DUP1	0.538	32	1709491-19	0.546	MS2, MS, MSD2
11	F709411-MS1	0.543	33	1709491-20	0.589	
12	F709411-MSD1	0.536	34			
13	1709491-02	0.518	35			
14	1709491-03	0.577	36			
15	1709491-04	0.576	37			
16	1709491-05	0.575	38			
17	1709491-06	0.534	39			
18	1709491-07	0.546	40			
19	1709491-08	0.524	41			
20	1709491-09	0.582	42			
21	1709491-10	0.539	43			
22	1709491-11	0.512	44			

BC 9/26/17

BS1, BSD1
 Spiked with
 40 ml of 100ng/ml
 LIMS: 1704421
 spiked and
 acid added
 by AMB. AMB
 9-26-17

PREPARATION BENCH SHEET

F709455

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/27/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709455-BLK1	Blank	0.5	40					
F709455-BLK2	Blank	0.5	40					
F709455-BLK3	Blank	0.5	40					
F709455-BLK4	Pre-BLK	0.5	40					
F709455-BLK5	Post-BLK	0.5	40					
F709455-BS1	LCS	0.5	40	1704421	40			
F709455-BS2	DORM-4	0.279	40	1703305	279			
F709455-BSD1	LCS Dup	0.5	40	1704421	40			
F709455-DUP1	Duplicate [1709632-01]	0.543	40					
F709455-MS1	Matrix Spike [1709632-01]	0.588	40	1705554	200			
F709455-MS2	Matrix Spike [1709632-07RE1]	0.555	40	1705554	200			
F709455-MS3	Matrix Spike [1709632-07RE1]	0.555	40	1705554	200			
F709455-MS4	Matrix Spike [1709632-07RE1]	0.000262	0.02	1704422	100			[Spk] 0.524g->40mL; 40mL->40mL; Spiked 0.02mL
F709455-MSD1	Matrix Spike Dup [1709632-01]	0.533	40	1705554	200			
F709455-MSD2	Matrix Spike Dup [1709632-07RE1]	0.566	40	1705554	200			
F709455-MSD3	Matrix Spike Dup [1709632-07RE1]	0.566	40	1705554	200			
F709455-MSD4	Matrix Spike Dup [1709632-07RE1]	0.000262	0.02	1704422	100			[Spk] 0.524g->40mL; 40mL->40mL; Spiked 0.02mL

PREPARATION BENCH SHEET

F709455

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/27/2017

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1704516	THg Washstation (0.5% BrCl)	
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1705611		22-Jan-18 00:00
			1705777	5% BrCl	
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705780	70/30 Digestion Acid	25-Mar-18 00:00

PREPARATION BENCH SHEET

F709455

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/27/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709632-01	L10-52_17LT006_091317_LOB_01_TA	0.542	40	QC	-	-	MS/MSD	
1709632-02	L10-52_17LT006_091317_LOB_02_TA	0.521	40	-	-	-		
1709632-03	L10-52_17LT006_091317_LOB_03_TA	0.577	40	-	-	-		
1709632-04	L10-52_17LT006_091317_LOB_04_TA	0.529	40	-	-	-		
1709632-05	L10-52_17LT006_091317_LOB_05_TA	0.541	40	-	-	-		
1709632-06	L10-52_17LT006_091317_LOB_06_TA	0.569	40	-	-	-		
1709632-07	L10-52_17LT007_091317_LOB_07_TA	0.524	40	-	-	-		
1709632-07RE1	L10-52_17LT007_091317_LOB_07_TA	0.524	40	-	-	-	Added 9/29/2017 by DM2	Added 9/29/2017 by DM2
1709632-08	L10-52_17LT007_091317_LOB_08_TA	0.51	40	-	-	-		
1709632-09	L10-52_17LT007_091317_LOB_09_TA	0.528	40	-	-	-		
1709632-10	L10-52_17LT008_091317_LOB_10_TA	0.522	40	-	-	-		
1709632-11	L10-52_17LT008_091317_LOB_11_TA	0.528	40	-	-	-		
1709632-12	L10-52_17LT008_091317_LOB_12_TA	0.516	40	-	-	-		
1709632-13	L10-52_17LT009_091317_LOB_13_TA	0.54	40	-	-	-		
1709632-14	L10-52_17LT041_091517_LOB_14_TA	0.556	40	-	-	-		
1709632-15	L10-52_17LT041_091517_LOB_15_TA	0.505	40	-	-	-		
1709632-16	L10-52_17LT041_091517_LOB_16_TA	0.501	40	-	-	-		
1709632-17	L10-52_17LT042_091517_LOB_17_TA	0.566	40	-	-	-		
1709632-18	L10-52_17LT040_091517_LOB_18_TA	0.527	40	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F709455

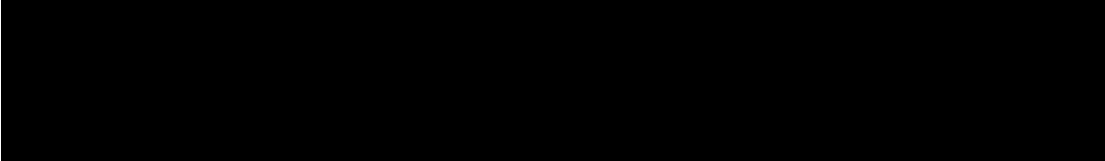
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/27/2017

1709632-19	L10-52_17LT040_091517_LOB_19_TA	0.574	40	-	-	-		
1709632-20	L10-52_17LT040_091517_LOB_20_TA	0.516	40	-	-	-		



PREPARATION BENCH SHEET

BL 9/29/17
2600-3

F709455

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/27/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709455-BLK1	Blank	0.5	40					2.5µL
F709455-BLK2	Blank	0.5	40					2.5µL
F709455-BLK3	Blank	0.5	40					2.5µL
F709455-BLK4	Pre-BLK	0.5	40					2.5µL
F709455-BLK5	Post-BLK	0.5	40					2.5µL
F709455-BS1	LCS	0.5	40	1704421	40			2.5µL
F709455-BS2	DORM-4	0.279	40	1703305	0.0279			12.5µL
F709455-BSD1	LCS Dup	0.5	40	1704421	40			2.5µL
F709455-DUP1	Duplicate [1709632-01]	0.543	40					12.5µL
F709455-MS1	Matrix Spike [1709632-01]	0.588	40	1705554	200			12.5µL
F709455-MS2	Matrix Spike [1709632-07] RE1	0.555	40	1705554	200			12.5µL
F709455-MSD1	Matrix Spike Dup [1709632-01]	0.533	40	1705554	200			12.5µL
F709455-MSD2	Matrix Spike Dup [1709632-07] RE1	0.566	40	1705554	200			12.5µL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703305	DORM-4	29-May-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1705777	5% BrCl	22-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705780	70/30 Digestion Acid	25-Mar-18 00:00

MS3/MSD3 re run MS2/MSD2 50µL

50µL = 1000X
12.5µL = 400X
2.5µL = 20X
2500X = 20µL

MS4, MSD4 - AS, ASD 2500X
Source 1709632-07
1704422 100µL

1705779
1704516
1704517
1705611
1703182

Due Date: 10/20/2017

PREPARATION BENCH SHEET

BC 9/29/17

F709455

2600-7

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/27/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709632-01	L10-52_17LT006_091317_LOB_01_TA	0.542	40	QC	-	-	MS/MSD 125ul ✓	
1709632-02	L10-52_17LT006_091317_LOB_02_TA	0.521	40	-	-	-	125ul ✓	
1709632-03	L10-52_17LT006_091317_LOB_03_TA	0.577	40	-	-	-	125ul ✓	
1709632-04	L10-52_17LT006_091317_LOB_04_TA	0.529	40	-	-	-	125ul ✓	
1709632-05	L10-52_17LT006_091317_LOB_05_TA	0.541	40	-	-	-	125ul ✓	
1709632-06	L10-52_17LT006_091317_LOB_06_TA	0.569	40	-	-	-	125ul ✓	
1709632-07	L10-52_17LT007_091317_LOB_07_TA	0.524	40	-	-	-	125ul → 50ul ✓	
1709632-08	L10-52_17LT007_091317_LOB_08_TA	0.51	40	-	-	-	125ul ✓	
1709632-09	L10-52_17LT007_091317_LOB_09_TA	0.528	40	-	-	-	125ul ✓	
1709632-10	L10-52_17LT008_091317_LOB_10_TA	0.522	40	-	-	-	125ul ✓	
1709632-11	L10-52_17LT008_091317_LOB_11_TA	0.528	40	-	-	-	125ul ✓	
1709632-12	L10-52_17LT008_091317_LOB_12_TA	0.516	40	-	-	-	125ul ✓	
1709632-13	L10-52_17LT009_091317_LOB_13_TA	0.54	40	-	-	-	125ul ✓	
1709632-14	L10-52_17LT041_091517_LOB_14_TA	0.556	40	-	-	-	125ul ✓	
1709632-15	L10-52_17LT041_091517_LOB_15_TA	0.505	40	-	-	-	125ul ✓	
1709632-16	L10-52_17LT041_091517_LOB_16_TA	0.501	40	-	-	-	125ul ✓	
1709632-17	L10-52_17LT042_091517_LOB_17_TA	0.566	40	-	-	-	125ul ✓	
1709632-18	L10-52_17LT040_091517_LOB_18_TA	0.527	40	-	-	-	125ul ✓	
1709632-19	L10-52_17LT040_091517_LOB_19_TA	0.574	40	-	-	-	125ul ✓	

Due Date: 10/20/2017

PREPARATION BENCH SHEET

BC 9/28/17
2600-3

F709455

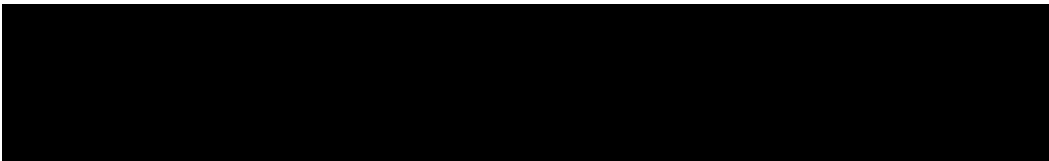
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 9/27/2017

1709632-20	L10-52_17LT040_091517_LOB_20_TA	0.516	40	-	-	-	125ul /	
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Technician: CLC Batch#: F709455 Date: 9/27/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 10 Calibrated? Yes No Therm.#: 14545 Calibrated? Yes No
 *Time in: 16:40 Actual Temp. (raw): 79.0 °C w/ CF: 879.1 °C CLC 9/27/17
 Time out: 18:40 Actual Temp. (raw): 87.0 °C w/ CF: 83.1 °C
 *Time in can't begin before target temperature is reached

Final vol.: 40 mL (LIMS ID: 1705777) Spike vol.: 200 µL (MS/MSD LIMS ID: 1705554)
 Spike Witness: bc 9/27/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: 0407852 Calibration Date: 9/28/17
 HNO₃ LIMS ID: NA Pipette SN#: NA Calibration Date: NA
 70/30 LIMS ID: 1705780 Dispenser #: 02527494 Calibrated? Yes No
 Other Acid LIMS ID: NA Dispenser #: 19406023, Yes
 Glass Vial # 00067892 Boiling Chip lot # 1702551 *Hotblock Position: J5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F709455-BLK1	0.551	23	1709632-10	0.522	B52 = DORM4
2	F709455-BLK2	0.512	24	1709632-11	0.528	
3	F709455-BLK3	0.597	25	1709632-12	0.516	1703305
4	F709455-BLK4	0.547	26	1709632-13	0.540	Comments
5	F709455-BLK5	0.518	27	1709632-14	0.556	BLK4 is
6	F709455-B51	0.572	28	1709632-15	0.505	Pre-BLK
7	F709455-B5D1	0.593	29	1709632-16	0.501	BLK5 is
8	F709455-B52	0.279	30	1709632-17	0.566	Post-BLK
9	F709455-DUP1	0.543	31	1709632-18	0.527	DUP1, MS1, MSD1
10	F709455-MS1	0.588	32	1709632-19	0.574	SRL: 1709632-01
11	F709455-MSD1	0.533	33	1709632-20	0.516	MS2, MSD2
12	F709455-MS2	0.555	34			SRL: 1709632-07
13	F709455-MSD2	0.566	35			B5/B5D1 Spike: 40µl of 100 µg/mL: 1704421 CLC 9/28/17
14	1709632-01	0.542	36			
15	1709632-02	0.521	37			
16	1709632-03	0.577	38			
17	1709632-04	0.529	39			
18	1709632-05	0.541	40			
19	1709632-06	0.569	41			
20	1709632-07	0.524	42			
21	1709632-08	0.510	43			
22	1709632-09	0.528	44			

Failing Data Report - 7129022

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1709491-01	Hg-CVAFS-T-7030	424	3.66				ng/g						FAIL-OVER	PASS	E -
1709632-07	Hg-CVAFS-T-7030	1850	15.3				ng/g						FAIL-OVER	PASS	E -
F709411-BS1	Hg-CVAFS-T-7030	15.64	0.800			8.0160	ng/g	195	75.00	125.00			PASS-OVER	FAIL-BS	PR
F709411-BSD1	Hg-CVAFS-T-7030	15.93	0.800	15.64		8.0160	ng/g	199	75.00	125.00	1.84	24.00	PASS-OVER	FAIL-BSD (Rec.)	PR
F709411-DUP1	Hg-CVAFS-T-7030	161.1	14.9	335.3	335.3		ng/g				70.2	24.00	PASS-OVER	FAIL-DUP	QR-07 -
F709455-MS2	Hg-CVAFS-T-7030	2238	14.4		1726	360.36	ng/g	142	71.00	125.00			FAIL-OVER	FAIL-MS	PM-02, E -
F709455-MSD2	Hg-CVAFS-T-7030	2151	14.1	2238	1726	353.36	ng/g	120	71.00	125.00	16.8	24.00	FAIL-OVER	PASS-MSD	E -
F709455-MS3	Hg-CVAFS-T-7030	2436	36.0		1726	360.36	ng/g	197	71.00	125.00			PASS-OVER	FAIL-MS	PM-02 -
F709455-MSD3	Hg-CVAFS-T-7030	2314	35.3	2436	1726	353.36	ng/g	166	71.00	125.00	16.8	24.00	PASS-OVER	FAIL-MSD (Rec.)	PM-02 -

Don Moore 9/29/17
 Analyst Reviewed By Date

[Signature] 9/29/17
 Peer Reviewed By Date

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BLAKE CASSIDY	Sequence(s) #: 7129022
Reviewer: <u>R 9/29/17</u>	Dataset ID(s): THG26003-170929-1
Date: 9/29/2017	WO (s) #: 1709491, 1709632
Batch #(s): F709411, F709455	

● Select the correct preparation method.

Analyte	Prep Method	Matrix	
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg0	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: DM **Reviewer Initials:** R 9/29/17

- | | | | | |
|---|---|--|-------------------------------------|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?
Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (b) Check 5% of transcription from Instrument print-out and Excel file
Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel?
50 ml / aliquot = Excel dilution value | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BLAKE CASSIDY	Sequence(s) #: 7129022
Reviewer: 0 <i>AC 9/29/17</i>	Dataset ID(s): THG26003-170929-1
Date: 9/29/2017	WO (s) #: 1709491, 1709632
Batch #(s): F709411, F709455	0

Analyst Initials DM Reviewer Initials AC 9/29/17

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: SEE FAILING DATA REPORT
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
 (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
 (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BLAKE CASSIDY	Sequence(s) #:	7129022
Reviewer:	0 <i>R 9/29/17</i>	Dataset ID(s):	THG26003-170929-1
Date:	9/29/2017	WO (s) #:	1709491, 1709632
Batch #(s):	F709411, F709455		0

Analyst Initials *DN* **Reviewer Initials** *R 9/29/17*

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | |
|---|------------------------------|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: <u> <i>1-27-17</i> </u> IDOC/CDOC within last 12 months? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ Current SOP revision read? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u> <i>5/9/2017</i> </u> LOD within last 3 months? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u> <i>5/9/2017</i> </u> LOQ within last 3 months? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709617

PO#

C012505850

October 13, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709617

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October 13, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRB-01_17SN001_091217_MUM_01_WB	1709617-01	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_02_WB	1709617-02	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_03_WB	1709617-03	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_04_WB	1709617-04	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_05_WB	1709617-05	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_06_WB	1709617-06	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_07_WB	1709617-07	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_08_WB	1709617-08	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_09_WB	1709617-09	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_10_WB	1709617-10	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_11_WB	1709617-11	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_12_WB	1709617-12	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_13_WB	1709617-13	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_14_WB	1709617-14	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_15_WB	1709617-15	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_16_WB	1709617-16	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_17_WB	1709617-17	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_18_WB	1709617-18	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_19_WB	1709617-19	Tissue	12-Sep-17 15:00	22-Sep-17 10:25
FRB-01_17SN001_091217_MUM_20_WB	1709617-20	Tissue	12-Sep-17 15:00	22-Sep-17 10:25

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The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
13-Oct-17 12:56

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM. The samples were received intact, on-ice within two sealed coolers at -27.1 and -21.6 degrees Celsius.

Client requested Lipids Analysis by NOAA 1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches; F710204 and F710207. Per client request, sample 1709617-01 was used as the QC source in batch F710207. These samples were analyzed in sequences 7J09010 and 7J09011.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries.

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

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Amy Goodall, Project Manager

Sample Receipt Checklist

Client: AMSC Parker Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/23/17 Labeled By: CSF

Project: _____

Received By: LM Label Verified By: Ba

of Coolers Received: 2 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>1709617</u>	CF: <u>15.1 °C</u>	Date/time: <u>9/22/17 10:25</u>	By: <u>LM</u>
Cooler 1: <u>-27.22°C</u>	w/ CF: <u>-27.12°C</u>	Cooler 4: _____ °C	w/ CF: _____ °C
Cooler 2: <u>-21.73°C</u>	w/ CF: <u>-21.63°C</u>	Cooler 5: _____ °C	w/ CF: _____ °C
Cooler 3: _____ °C	w/ CF: _____ °C	Cooler 6: _____ °C	w/ CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	Y	
Preservation type:	N	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4846 Cooler 2: 7878 1037 1884

1709617





Frontier Global Sciences

Environmental Analysis Request/Chain of Custody

1709617

Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101		Matrix		Analyses Requested												For Lab Use Only											
Project Name: USDC Parabolic		FN #: 3516166052.04A.055		Preservation Codes												SF #:											
Project Manager: Rod Pendleton		P.O. #: C012505850														SCR #:											
Sampler: JB		PWSID #:																									
Phone #:		Quote #:																									
State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																									
Sample Identification		Collection		Soil <input type="checkbox"/>	Sediment <input type="checkbox"/>	Tissue <input type="checkbox"/>	Composite <input type="checkbox"/>	Grab <input type="checkbox"/>	Soil	Water	Other: <input type="checkbox"/>	Total # of Containers	-16 100% Liquid 100% Ziploc Freeze													Remarks	
		Date	Time																								
1	FRB-01_175N001_091217_MUM_01_WB	091217	07:00	X				X			X	1	X													use volume for MSJ MSJ	
2	FRB-01_175N001_091217_MUM_02_WB	091217	08:00	X				X			X	1	X														
3	FRB-01_175N001_091217_MUM_03_WB	091217	09:00	X				X			X	1	X														
4	FRB-01_175N001_091217_MUM_04_WB	091217	09:00	X				X			X	1	X														
5	FRB-01_175N001_091217_MUM_05_WB	091217	09:00	X				X			X	1	X														
6	FRB-01_175N001_091217_MUM_06_WB	091217	09:00	X				X			X	1	X														
7	FRB-01_175N001_091217_MUM_07_WB	091217	09:00	X				X			X	1	X														
8	FRB-01_175N001_091217_MUM_08_WB	091217	09:00	X				X			X	1	X														
9	FRB-01_175N001_091217_MUM_09_WB	091217	09:00	X				X			X	1	X														
10	FRB-01_175N001_091217_MUM_10_WB	091217	09:00	X				X			X	1	X														
11	FRB-01_175N001_091217_MUM_11_WB	091217	09:00	X				X			X	1	X														
12	FRB-01_175N001_091217_MUM_12_WB	091217	09:00	X				X			X	1	X														
13	FRB-01_175N001_091217_MUM_13_WB	091217	09:00	X				X			X	1	X														
14	FRB-01_175N001_091217_MUM_14_WB	091217	09:00	X				X			X	1	X														
15	FRB-01_175N001_091217_MUM_15_WB	091217	09:00	X				X			X	1	X														
16	FRB-01_175N001_091217_MUM_16_WB	091217	09:00	X				X			X	1	X														
17	FRB-01_175N001_091217_MUM_17_WB	091217	09:00	X				X			X	1	X														
18	FRB-01_175N001_091217_MUM_18_WB	091217	09:00	X				X			X	1	X														
19	FRB-01_175N001_091217_MUM_19_WB	091217	09:00	X				X			X	1	X														
20	FRB-01_175N001_091217_MUM_20_WB	091217	09:00	X				X			X	1	X														
Turnaround Time Requested (TAT) (please check):				Standard <input checked="" type="checkbox"/>		Rush <input type="checkbox"/>		Relinquished by:		Date	Time	Received by:		Date	Time												
(Rush TAT is subject to laboratory approval and surcharges.)										9/21/2017	1630																
Notes:								Relinquished by:		Date	Time	Received by:		Date	Time												
FedEx # 3103 444 1802								Relinquished by:		Date	Time	Received by:		Date	Time												
# of Copies 1								Relinquished by:		Date	Time	Received by:		Date	Time												
Sample disposal - Hold Equipment Bank 2 14 until 30 days after delivery of report								Relinquished by:		Date	Time	Received by:		Date	Time												
Report and ECD to: daniel.king@amec.fw.com / 978 692 6632								Relinquished by:		Date	Time	Received by:		Date	Time												
Data Package Options (please check if required)				High <input type="checkbox"/>		Standard <input checked="" type="checkbox"/>		Relinquished by Commercial Carrier:																			
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				If yes, format:				UPS		FedEx	Other	Temperature upon receipt		°C													



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 13-Oct-17 12:56
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FRB-01_17SN001_091217_MUM_01_WB
1709617-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	5.17	0.083	0.741	ng/g	20	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	
---------	------	-------	-------	------	----	---------	-----------	---------	-----------	-----------	--



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_02_WB
1709617-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	8.36	0.082	0.735	ng/g	20	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_03_WB
1709617-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	5.05	0.083	0.743	ng/g	20	F710204	03-Oct-17	7J09010	06-Oct-17	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_04_WB
1709617-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	7.11	0.210	1.87	ng/g	50	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_05_WB
1709617-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	7.57	0.210	1.87	ng/g	50	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_06_WB
1709617-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	6.46	0.201	1.80	ng/g	50	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_07_WB
1709617-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	7.70	0.083	0.743	ng/g	20	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_08_WB
1709617-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	7.60	0.085	0.763	ng/g	20	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_09_WB
1709617-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	6.16	0.083	0.743	ng/g	20	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_10_WB
1709617-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	6.74	0.079	0.702	ng/g	20	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_11_WB
1709617-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	6.70	0.086	0.766	ng/g	20	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_12_WB
1709617-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	4.81	0.084	0.752	ng/g	20	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_13_WB
1709617-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	5.65	0.085	0.760	ng/g	20	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_14_WB
1709617-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	6.10	0.089	0.797	ng/g	20	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_15_WB
1709617-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	5.08	0.083	0.738	ng/g	20	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_16_WB
1709617-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	6.60	0.086	0.772	ng/g	20	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_17_WB
1709617-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	5.85	0.082	0.733	ng/g	20	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_18_WB
1709617-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	7.84	0.087	0.775	ng/g	20	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_19_WB
1709617-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	6.53	0.082	0.730	ng/g	20	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

FRB-01_17SN001_091217_MUM_20_WB
1709617-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	4.44	0.088	0.781	ng/g	20	F710207	03-Oct-17	7J09011	06-Oct-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J09010 - F710204											
Cal Standard (7J09010-CAL1)					Prepared & Analyzed: 06-Oct-17						
Mercury	0.520	-		ng/L	0.50100		104				
Cal Standard (7J09010-CAL2)					Prepared & Analyzed: 06-Oct-17						
Mercury	1.027	-		ng/L	1.0020		103				
Cal Standard (7J09010-CAL3)					Prepared & Analyzed: 06-Oct-17						
Mercury	4.852	-		ng/L	5.0100		96.8				
Cal Standard (7J09010-CAL4)					Prepared & Analyzed: 06-Oct-17						
Mercury	19.52	-		ng/L	20.040		97.4				
Cal Standard (7J09010-CAL5)					Prepared & Analyzed: 06-Oct-17						
Mercury	39.46	-		ng/L	40.080		98.5				
Calibration Blank (7J09010-CCB1)					Prepared & Analyzed: 06-Oct-17						
Mercury	0.070	-		ng/L							
Calibration Blank (7J09010-CCB2)					Prepared & Analyzed: 06-Oct-17						
Mercury	0.056	-		ng/L							
Calibration Blank (7J09010-CCB3)					Prepared & Analyzed: 06-Oct-17						
Mercury	0.056	-		ng/L							
Calibration Blank (7J09010-CCB4)					Prepared & Analyzed: 06-Oct-17						
Mercury	0.049	-		ng/L							
Calibration Blank (7J09010-CCB5)					Prepared & Analyzed: 06-Oct-17						
Mercury	0.123	-		ng/L							

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J09010 - F710204											
Calibration Blank (7J09010-CCB6) Prepared & Analyzed: 06-Oct-17											
Mercury	0.107	-		ng/L							
Calibration Blank (7J09010-CCB7) Prepared & Analyzed: 06-Oct-17											
Mercury	0.196	-		ng/L							
Calibration Check (7J09010-CCV1) Prepared & Analyzed: 06-Oct-17											
Mercury	4.749	-		ng/L	5.0000		95.0	77-123			
Calibration Check (7J09010-CCV2) Prepared & Analyzed: 06-Oct-17											
Mercury	4.751	-		ng/L	5.0000		95.0	77-123			
Calibration Check (7J09010-CCV3) Prepared & Analyzed: 06-Oct-17											
Mercury	4.551	-		ng/L	5.0000		91.0	77-123			
Calibration Check (7J09010-CCV4) Prepared & Analyzed: 06-Oct-17											
Mercury	4.659	-		ng/L	5.0000		93.2	77-123			
Calibration Check (7J09010-CCV5) Prepared & Analyzed: 06-Oct-17											
Mercury	4.715	-		ng/L	5.0000		94.3	77-123			
Calibration Check (7J09010-CCV6) Prepared & Analyzed: 06-Oct-17											
Mercury	4.755	-		ng/L	5.0000		95.1	77-123			
Calibration Check (7J09010-CCV7) Prepared & Analyzed: 06-Oct-17											
Mercury	4.963	-		ng/L	5.0000		99.3	77-123			
Instrument Blank (7J09010-IBL1) Prepared & Analyzed: 06-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 13-Oct-17 12:56
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J09010 - F710204

Instrument Blank (7J09010-IBL2)				Prepared & Analyzed: 06-Oct-17							
Mercury	ND	0.004	0.040	ng/L							U

Instrument Blank (7J09010-IBL3)				Prepared & Analyzed: 06-Oct-17							
Mercury	ND	0.004	0.040	ng/L							U

Initial Cal Check (7J09010-ICV1)				Prepared & Analyzed: 06-Oct-17							
Mercury	4.849	-		ng/L	5.0000		97.0	79-121			

Batch 7J09011 - F710207

Cal Standard (7J09011-CAL1)				Prepared & Analyzed: 06-Oct-17							
Mercury	0.462	-		ng/L	0.50100		92.1				

Cal Standard (7J09011-CAL2)				Prepared & Analyzed: 06-Oct-17							
Mercury	1.004	-		ng/L	1.0020		100				

Cal Standard (7J09011-CAL3)				Prepared & Analyzed: 06-Oct-17							
Mercury	4.950	-		ng/L	5.0100		98.8				

Cal Standard (7J09011-CAL4)				Prepared & Analyzed: 06-Oct-17							
Mercury	20.51	-		ng/L	20.040		102				

Cal Standard (7J09011-CAL5)				Prepared & Analyzed: 06-Oct-17							
Mercury	42.29	-		ng/L	40.080		106				

Calibration Blank (7J09011-CCB1)				Prepared & Analyzed: 06-Oct-17							
Mercury	0.199	-		ng/L							

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 13-Oct-17 12:56
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J09011 - F710207											
Calibration Blank (7J09011-CCB2)											
Mercury	0.207	-		ng/L							Prepared & Analyzed: 06-Oct-17
Calibration Blank (7J09011-CCB3)											
Mercury	0.158	-		ng/L							Prepared & Analyzed: 06-Oct-17
Calibration Blank (7J09011-CCB4)											
Mercury	0.091	-		ng/L							Prepared & Analyzed: 06-Oct-17
Calibration Blank (7J09011-CCB5)											
Mercury	0.117	-		ng/L							Prepared & Analyzed: 06-Oct-17
Calibration Blank (7J09011-CCB6)											
Mercury	0.176	-		ng/L							Prepared & Analyzed: 06-Oct-17
Calibration Blank (7J09011-CCB7)											
Mercury	0.252	-		ng/L							Prepared & Analyzed: 06-Oct-17
Calibration Check (7J09011-CCV1)											
Mercury	5.373	-		ng/L	5.0000		107	77-123			Prepared & Analyzed: 06-Oct-17
Calibration Check (7J09011-CCV2)											
Mercury	5.385	-		ng/L	5.0000		108	77-123			Prepared & Analyzed: 06-Oct-17
Calibration Check (7J09011-CCV3)											
Mercury	5.138	-		ng/L	5.0000		103	77-123			Prepared & Analyzed: 06-Oct-17
Calibration Check (7J09011-CCV4)											
Mercury	4.841	-		ng/L	5.0000		96.8	77-123			Prepared & Analyzed: 06-Oct-17

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 13-Oct-17 12:56
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J09011 - F710207											
Calibration Check (7J09011-CCV5)											
						Prepared & Analyzed: 06-Oct-17					
Mercury	4.935	-		ng/L	5.0000		98.7	77-123			
Calibration Check (7J09011-CCV6)											
						Prepared & Analyzed: 06-Oct-17					
Mercury	4.923	-		ng/L	5.0000		98.5	77-123			
Calibration Check (7J09011-CCV7)											
						Prepared & Analyzed: 06-Oct-17					
Mercury	5.131	-		ng/L	5.0000		103	77-123			
Instrument Blank (7J09011-IBL1)											
						Prepared & Analyzed: 06-Oct-17					
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J09011-IBL2)											
						Prepared & Analyzed: 06-Oct-17					
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J09011-IBL3)											
						Prepared & Analyzed: 06-Oct-17					
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7J09011-ICV1)											
						Prepared & Analyzed: 06-Oct-17					
Mercury	5.469	-		ng/L	5.0000		109	79-121			
Batch F710204 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710204-BLK1)											
						Prepared: 03-Oct-17 Analyzed: 06-Oct-17					
Mercury	0.204	0.090	0.800	ng/g							J
Blank (F710204-BLK2)											
						Prepared: 03-Oct-17 Analyzed: 06-Oct-17					
Mercury	0.134	0.090	0.800	ng/g							J

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 13-Oct-17 12:56
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710204 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710204-BLK3) Prepared: 03-Oct-17 Analyzed: 06-Oct-17											
Mercury	0.141	0.090	0.800	ng/g							J
Blank (F710204-BLK4) Prepared: 03-Oct-17 Analyzed: 06-Oct-17											
Mercury	ND	0.079	0.704	ng/g							F-03, U
Blank (F710204-BLK5) Prepared: 03-Oct-17 Analyzed: 06-Oct-17											
Mercury	ND	0.085	0.755	ng/g							F-03, U
LCS (F710204-BS1) Prepared: 03-Oct-17 Analyzed: 06-Oct-17											
Mercury	7.229	0.090	0.800	ng/g	8.0160		90.2	75-125			
LCS (F710204-BS2) Prepared: 03-Oct-17 Analyzed: 06-Oct-17											
Mercury	331.0	3.50	31.2	ng/g	373.70		88.6	75-125			
LCS Dup (F710204-BSD1) Prepared: 03-Oct-17 Analyzed: 06-Oct-17											
Mercury	7.582	0.090	0.800	ng/g	8.0160		94.6	75-125	4.76	24	
Duplicate (F710204-DUP1) Source: 1709614-02 Prepared: 03-Oct-17 Analyzed: 06-Oct-17											
Mercury	374.4	1.65	14.7	ng/g		382.5			2.15	24	
Matrix Spike (F710204-MS1) Source: 1709614-01 Prepared: 03-Oct-17 Analyzed: 06-Oct-17											
Mercury	591.4	1.61	14.4	ng/g	359.71	273.5	88.4	71-125			
Matrix Spike (F710204-MS2) Source: 1709614-02 Prepared: 03-Oct-17 Analyzed: 06-Oct-17											
Mercury	695.8	1.62	14.5	ng/g	362.32	382.5	86.5	71-125			
Matrix Spike Dup (F710204-MSD1) Source: 1709614-01 Prepared: 03-Oct-17 Analyzed: 06-Oct-17											
Mercury	606.3	1.72	15.4	ng/g	384.62	273.5	86.5	71-125	2.12	24	



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 13-Oct-17 12:56
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710204 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F710204-MSD2)		Source: 1709614-02			Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	712.6	1.64	14.7	ng/g	366.30	382.5	90.1	71-125	4.16	24	

Batch F710207 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710207-BLK1)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	0.333	0.090	0.800	ng/g							J

Blank (F710207-BLK2)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	0.268	0.090	0.800	ng/g							J

Blank (F710207-BLK3)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	0.166	0.090	0.800	ng/g							J

Blank (F710207-BLK4)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	ND	0.086	0.769	ng/g							F-03, U

Blank (F710207-BLK5)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	ND	0.079	0.709	ng/g							F-03, U

LCS (F710207-BS1)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	7.843	0.090	0.800	ng/g	8.0160		97.8	75-125			

LCS (F710207-BS2)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	378.4	3.46	30.9	ng/g	373.70		101	75-125			

LCS Dup (F710207-BSD1)		Prepared: 03-Oct-17 Analyzed: 06-Oct-17									
Mercury	8.231	0.090	0.800	ng/g	8.0160		103	75-125	4.83	24	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710207 - EFGS-011 Nitric/Sulfuric Hg Digestion

Duplicate (F710207-DUP1)		Source: 1709615-02			Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	110.4	1.76	15.7	ng/g		114.0			3.22	24	
Matrix Spike (F710207-MS1)		Source: 1709615-02			Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	458.0	1.64	14.7	ng/g	366.30	114.0	93.9	71-125			
Matrix Spike (F710207-MS2)		Source: 1709617-01RE1			Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	345.5	1.59	14.2	ng/g	355.87	5.173	95.6	71-125			
Matrix Spike Dup (F710207-MSD1)		Source: 1709615-02			Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	475.1	1.72	15.4	ng/g	384.62	114.0	93.9	71-125	0.0318	24	
Matrix Spike Dup (F710207-MSD2)		Source: 1709617-01RE1			Prepared: 03-Oct-17 Analyzed: 06-Oct-17						
Mercury	340.9	1.56	13.9	ng/g	347.22	5.173	96.7	71-125	1.11	24	

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271 Mill Road
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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 12:56

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26002-171006-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 06, 2017

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7J09009, 7J09010

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	101.15 units	202.30	94.85 units	189.71	104.0 %Rec
SEQ-CAL2	1	1.00 ng/L	193.78 units	193.78	187.48 units	187.48	102.7 %Rec
SEQ-CAL3	1	5.00 ng/L	891.63 units	178.33	885.33 units	177.07	97.0 %Rec
SEQ-CAL4	1	20.00 ng/L	3568.39 units	178.42	3562.09 units	178.10	97.6 %Rec
SEQ-CAL5	1	40.00 ng/L	7206.72 units	180.17	7200.42 units	180.01	98.6 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 182.47 +/- 5.74 3.1% RSD 186.60

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.30 units	±4.41	0.03 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.030 ng/L	±0.017
BLK	2	1	0.520 ng/L	
BLK	3	3	1.995 ng/L	±0.479
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: DM 10/9/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-IBL1	1	10/6/2017 8:11:31	86717-1.RAW	8:11:31 AM	1.21			-5.1	-0.028	-0.028	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	10/6/2017 8:15:39	86718-1.RAW	8:15:39 AM	9.10			2.8	0.015	0.015	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	10/6/2017 8:19:48	86719-1.RAW	8:19:48 AM	8.58			2.3	0.013	0.013	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	10/6/2017 8:23:56	86720-1.RAW	8:23:56 AM	101.15			94.9	0.520	0.520	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	10/6/2017 8:28:05	86721-1.RAW	8:28:05 AM	193.78			187.5	1.027	1.027	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	10/6/2017 8:32:13	86722-1.RAW	8:32:13 AM	891.63			885.3	4.852	4.852	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	10/6/2017 8:36:22	86723-1.RAW	8:36:22 AM	3568.39			3562.1	19.521	19.521	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	10/6/2017 8:40:30	86724-1.RAW	8:40:30 AM	7206.72			7200.4	39.460	39.460	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	10/6/2017 8:44:38	86725-1.RAW	8:44:38 AM	891.20			884.9	4.849	4.849	ng/L	
Hg2600-2	BC	SAM	ws		10/6/2017 9:04:31	86726-1.RAW	9:04:31 AM	71.78		x	65.5	0.359	0.000	ng/L	
Hg2600-2	BC	BLK	F710248-BLK1	1	10/6/2017 9:08:40	86727-1.RAW	9:08:40 AM	10.63	1		4.3	0.024	0.024	ng/L	
Hg2600-2	BC	BLK	F710248-BLK2	1	10/6/2017 9:12:48	86728-1.RAW	9:12:48 AM	15.15	1		8.9	0.049	0.049	ng/L	
Hg2600-2	BC	BLK	F710248-BLK3	1	10/6/2017 9:16:56	86729-1.RAW	9:16:56 AM	9.35	1		3.1	0.017	0.017	ng/L	
Hg2600-2	BC	BLK	F710248-BLK4	10	10/6/2017 9:21:05	86730-1.RAW	9:21:05 AM	15.78	2		9.5	0.052	0.520	ng/L	
Hg2600-2	BC	SAM	F710248-BS1	1	10/6/2017 9:25:13	86731-1.RAW	9:25:13 AM	2765.38	1		2759.1	15.091	15.091	ng/L	
Hg2600-2	BC	SAM	F710248-BSD1	1	10/6/2017 9:29:22	86732-1.RAW	9:29:22 AM	2744.00	1		2737.7	14.974	14.974	ng/L	
Hg2600-2	BC	SAM	1709709-01	1	10/6/2017 9:33:30	86733-1.RAW	9:33:30 AM	27.56	1		21.3	0.087	0.087	ng/L	
Hg2600-2	BC	SAM	1709709-02	1	10/6/2017 9:37:39	86734-1.RAW	9:37:39 AM	27.79	1		21.5	0.088	0.088	ng/L	
Hg2600-2	BC	SAM	1709709-03	1	10/6/2017 9:41:47	86735-1.RAW	9:41:47 AM	327.18	1		320.9	1.729	1.729	ng/L	
Hg2600-2	BC	SAM	1709709-04	1	10/6/2017 9:45:55	86736-1.RAW	9:45:55 AM	159.41	1		153.1	0.809	0.809	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	10/6/2017 9:50:04	86737-1.RAW	9:50:04 AM	872.91			866.6	4.749	4.749	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	10/6/2017 9:54:12	86738-1.RAW	9:54:12 AM	19.13			12.8	0.070	0.070	ng/L	
Hg2600-2	BC	SAM	1709709-05	1	10/6/2017 9:58:21	86739-1.RAW	9:58:21 AM	183.70	1		177.4	0.943	0.943	ng/L	
Hg2600-2	BC	SAM	1709709-06	1	10/6/2017 10:02:29	86740-1.RAW	10:02:29 AM	105.44	1		99.1	0.514	0.514	ng/L	
Hg2600-2	BC	SAM	1710042-01	1	10/6/2017 10:06:38	86741-1.RAW	10:06:38 AM	13.58	1		7.3	0.010	0.010	ng/L	
Hg2600-2	BC	SAM	1710142-01	1	10/6/2017 10:10:46	86742-1.RAW	10:10:46 AM	402.56	1		396.3	2.142	2.142	ng/L	
Hg2600-2	BC	SAM	1710142-02	1	10/6/2017 10:14:54	86743-1.RAW	10:14:54 AM	55.33	1		49.0	0.239	0.239	ng/L	
Hg2600-2	BC	SAM	1710142-03	1	10/6/2017 10:19:03	86744-1.RAW	10:19:03 AM	423.00	1		416.7	2.254	2.254	ng/L	
Hg2600-2	BC	SAM	1710142-04	1	10/6/2017 10:23:11	86745-1.RAW	10:23:11 AM	52.92	1		46.6	0.226	0.226	ng/L	
Hg2600-2	BC	SAM	1710142-05	10	10/6/2017 10:27:20	86746-1.RAW	10:27:20 AM	203.49	2		197.2	1.029	10.287	ng/L	
Hg2600-2	BC	SAM	1710142-06	1	10/6/2017 10:31:28	86747-1.RAW	10:31:28 AM	53.23	1		46.9	0.228	0.228	ng/L	
Hg2600-2	BC	SAM	1710143-01	1	10/6/2017 10:35:36	86748-1.RAW	10:35:36 AM	107.58	1		101.3	0.525	0.525	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	10/6/2017 10:39:45	86749-1.RAW	10:39:45 AM	873.27			867.0	4.751	4.751	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	10/6/2017 10:43:53	86750-1.RAW	10:43:53 AM	16.56			10.3	0.056	0.056	ng/L	
Hg2600-2	BC	SAM	1710143-02	1	10/6/2017 10:48:02	86751-1.RAW	10:48:02 AM	102.18	1		95.9	0.496	0.496	ng/L	
Hg2600-2	BC	SAM	1710143-03	1	10/6/2017 10:52:10	86752-1.RAW	10:52:10 AM	115.58	1		109.3	0.569	0.569	ng/L	
Hg2600-2	BC	SAM	1710143-04	1	10/6/2017 10:56:18	86753-1.RAW	10:56:18 AM	155.17	1		148.9	0.786	0.786	ng/L	
Hg2600-2	BC	SAM	1710143-05	1	10/6/2017 11:00:27	86754-1.RAW	11:00:27 AM	225.21	1		218.9	1.170	1.170	ng/L	
Hg2600-2	BC	SAM	1710143-06	1	10/6/2017 11:04:35	86755-1.RAW	11:04:35 AM	89.74	1		83.4	0.428	0.428	ng/L	
Hg2600-2	BC	SAM	F710248-DUP1	1	10/6/2017 11:08:44	86756-1.RAW	11:08:44 AM	323.94	1		317.6	1.711	1.711	ng/L	
Hg2600-2	BC	SAM	F710248-MS1	1	10/6/2017 11:12:52	86757-1.RAW	11:12:52 AM	1160.78	1		1154.5	6.297	6.297	ng/L	
Hg2600-2	BC	SAM	F710248-MSD1	1	10/6/2017 11:17:01	86758-1.RAW	11:17:01 AM	1157.67	1		1151.4	6.280	6.280	ng/L	
Hg2600-2	BC	SAM	F710248-MS2	1	10/6/2017 11:21:09	86759-1.RAW	11:21:09 AM	1277.71	1		1271.4	6.938	6.938	ng/L	
Hg2600-2	BC	SAM	F710248-MSD2	1	10/6/2017 11:25:17	86760-1.RAW	11:25:17 AM	1246.41	1		1240.1	6.766	6.766	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	10/6/2017 11:29:26	86761-1.RAW	11:29:26 AM	836.69			830.4	4.551	4.551	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	10/6/2017 11:33:34	86762-1.RAW	11:33:34 AM	16.57			10.3	0.056	0.056	ng/L	
Hg2600-2	BC	SAM	EFGS06396 TV 50ng	100	10/6/2017 11:37:43	86763-1.RAW	11:37:43 AM	806.07	x		799.8	4.383	438.293	ng/L	
Hg2600-2	BC	SAM	EFGS17786 TV 50ng	100	10/6/2017 11:41:51	86764-1.RAW	11:41:51 AM	840.87	x		834.6	4.574	457.365	ng/L	
Hg2600-2	BC	SAM	EFGS18673 TV 100ng	100	10/6/2017 11:46:00	86765-1.RAW	11:46:00 AM	1648.48	x		1642.2	9.000	899.953	ng/L	
Hg2600-2	BC	SAM	EFGS03004 TV 100ng	100	10/6/2017 11:50:08	86766-1.RAW	11:50:08 AM	1698.18	x		1691.9	9.272	927.190	ng/L	
Hg2600-2	BC	BLK	F710204-BLK1	20	10/6/2017 11:54:16	86767-1.RAW	11:54:16 AM	29.52	3		23.2	0.127	2.545	ng/L	
Hg2600-2	BC	BLK	F710204-BLK2	20	10/6/2017 11:58:25	86768-1.RAW	11:58:25 AM	21.60	3		15.3	0.084	1.677	ng/L	
Hg2600-2	BC	BLK	F710204-BLK3	20	10/6/2017 12:02:33	86769-1.RAW	12:02:33 PM	22.37	3		16.1	0.088	1.762	ng/L	
Hg2600-2	BC	SAM	*F710204-BLK4	20	10/6/2017 12:06:42	86770-1.RAW	12:06:42 PM	22.42	3		16.1	-0.011	-0.228	ng/L	
Hg2600-2	BC	SAM	*F710204-BLK5	20	10/6/2017 12:10:50	86771-1.RAW	12:10:50 PM	17.98	3		11.7	-0.036	-0.714	ng/L	
Hg2600-2	BC	SAM	F710204-BS1	20	10/6/2017 12:14:58	86772-1.RAW	12:14:58 PM	848.96	3		842.7	4.518	90.365	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	10/6/2017 12:19:07	86773-1.RAW	12:19:07 PM	856.45			850.2	4.659	4.659	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-CCB4	1	10/6/2017 12:23:15	86774-1.RAW	12:23:15 PM	15.28			9.0	0.049	0.049	ng/L	
Hg2600-2	BC	SAM	F710204-BSD1	20	10/6/2017 12:27:24	86775-1.RAW	12:27:24 PM	889.19	3		882.9	4.739	94.774	ng/L	
Hg2600-2	BC	SAM	F710204-BS2	400	10/6/2017 12:31:32	86776-1.RAW	12:31:32 PM	973.45	3		967.2	5.295	2118.091	ng/L	
Hg2600-2	BC	SAM	WS		10/6/2017 12:40:48	86777-1.RAW	12:40:48 PM	43.36		x	37.1	0.203	0.000	ng/L	
Hg2600-2	BC	SAM	1709614-01	400	10/6/2017 12:44:56	86778-1.RAW	12:44:56 PM	1735.42	3		1729.1	9.471	3788.397	ng/L	
Hg2600-2	BC	SAM	WS		10/6/2017 12:58:28	86779-1.RAW	12:58:28 PM	52.13		x	45.8	0.251	0.000	ng/L	
Hg2600-2	BC	SAM	1709614-02	400	10/6/2017 13:02:36	86780-1.RAW	1:02:36 PM	2397.66	3		2391.4	13.100	5240.085	ng/L	
Hg2600-2	BC	SAM	1709614-15	400	10/6/2017 13:06:45	86781-1.RAW	1:06:45 PM	510.49	3		504.2	2.758	1103.242	ng/L	
Hg2600-2	BC	SAM	1709614-16	400	10/6/2017 13:10:53	86782-1.RAW	1:10:53 PM	479.54	3		473.2	2.588	1035.396	ng/L	
Hg2600-2	BC	SAM	1709614-17	400	10/6/2017 13:15:02	86783-1.RAW	1:15:02 PM	392.58	3		386.3	2.112	844.772	ng/L	
Hg2600-2	BC	SAM	1709614-18	400	10/6/2017 13:19:10	86784-1.RAW	1:19:10 PM	802.55	3		796.3	4.359	1743.463	ng/L	
Hg2600-2	BC	SAM	1709614-19	400	10/6/2017 13:23:19	86785-1.RAW	1:23:19 PM	933.95	3		927.7	5.079	2031.503	ng/L	
Hg2600-2	BC	SAM	1709614-20	400	10/6/2017 13:27:27	86786-1.RAW	1:27:27 PM	1061.41	3		1055.1	5.777	2310.907	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	10/6/2017 13:31:35	86787-1.RAW	1:31:35 PM	866.66			860.4	4.715	4.715	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	10/6/2017 13:35:44	86788-1.RAW	1:35:44 PM	28.68			22.4	0.123	0.123	ng/L	
Hg2600-2	BC	SAM	1709615-03	400	10/6/2017 13:39:52	86789-1.RAW	1:39:52 PM	343.15	3		336.9	1.841	736.418	ng/L	
Hg2600-2	BC	SAM	1709615-04	400	10/6/2017 13:44:01	86790-1.RAW	1:44:01 PM	222.38	3		216.1	1.179	471.679	ng/L	
Hg2600-2	BC	SAM	1709615-05	400	10/6/2017 13:48:09	86791-1.RAW	1:48:09 PM	301.63	3		295.3	1.614	645.402	ng/L	
Hg2600-2	BC	SAM	1709615-06	400	10/6/2017 13:52:18	86792-1.RAW	1:52:18 PM	205.95	3		199.7	1.089	435.663	ng/L	
Hg2600-2	BC	SAM	1709615-07	400	10/6/2017 13:56:26	86793-1.RAW	1:56:26 PM	311.91	3		305.6	1.670	667.937	ng/L	
Hg2600-2	BC	SAM	1709615-08	400	10/6/2017 14:00:34	86794-1.RAW	2:00:34 PM	376.45	3		370.2	2.024	809.414	ng/L	
Hg2600-2	BC	SAM	1709615-09	400	10/6/2017 14:04:43	86795-1.RAW	2:04:43 PM	1410.33	3		1404.0	7.689	3075.771	ng/L	
Hg2600-2	BC	SAM	1709615-10	400	10/6/2017 14:08:51	86796-1.RAW	2:08:51 PM	1234.81	3		1228.5	6.728	2691.015	ng/L	
Hg2600-2	BC	SAM	1709615-11	400	10/6/2017 14:13:00	86797-1.RAW	2:13:00 PM	1007.00	3		1000.7	5.479	2191.635	ng/L	
Hg2600-2	BC	SAM	1709616-01	400	10/6/2017 14:17:08	86798-1.RAW	2:17:08 PM	232.80	3		226.5	1.236	494.521	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	10/6/2017 14:21:16	86799-1.RAW	2:21:16 PM	874.04			867.7	4.755	4.755	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	10/6/2017 14:25:25	86800-1.RAW	2:25:25 PM	25.74			19.4	0.107	0.107	ng/L	
Hg2600-2	BC	SAM	1709617-02	20	10/6/2017 14:29:33	86801-1.RAW	2:29:33 PM	1061.97	3		1055.7	5.686	113.712	ng/L	
Hg2600-2	BC	SAM	1709617-03	20	10/6/2017 14:33:42	86802-1.RAW	2:33:42 PM	644.66	3		638.4	3.399	67.973	ng/L	
Hg2600-2	BC	SAM	1709615-06RE1	100	10/6/2017 14:37:50	86803-1.RAW	2:37:50 PM	822.04	3		815.7	4.451	445.051	ng/L	
Hg2600-2	BC	SAM	F710204-DUP1	400	10/6/2017 14:41:59	86804-1.RAW	2:41:59 PM	2329.77	3		2323.5	12.728	5091.264	ng/L	
Hg2600-2	BC	SAM	F710204-MS1	400	10/6/2017 14:46:07	86805-1.RAW	2:46:07 PM	3757.48	3		3751.2	20.552	8220.931	ng/L	
Hg2600-2	BC	SAM	F710204-MSD1	400	10/6/2017 14:50:15	86806-1.RAW	2:50:15 PM	3602.95	3		3596.7	19.705	7882.188	ng/L	
Hg2600-2	BC	SAM	F710204-MS2	400	10/6/2017 14:54:24	86807-1.RAW	2:54:24 PM	4387.25	3		4381.0	24.004	9601.443	ng/L	
Hg2600-2	BC	SAM	F710204-MSD2	400	10/6/2017 14:58:32	86808-1.RAW	2:58:32 PM	4444.82	3		4438.5	24.319	9727.641	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	10/6/2017 15:02:41	86809-1.RAW	3:02:41 PM	911.85			905.6	4.963	4.963	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	10/6/2017 15:06:49	86810-1.RAW	3:06:49 PM	42.06			35.8	0.196	0.196	ng/L	

TotalMercury EPA1631
 Operati BC
 BlankS: 6.2943
 Calib Eqn: Conc = (Area-6.294
 Run Date: 10/6/2017
 Blank SD: 4.410430011
 Worksh THg260(CalibFa 182.47
 Status: QC Warnings:4/QC E
 Run Time: 12:54:19
 Blank RSD%: 70.07057723
 Method ##### R: 1
 R²: 1
 CF SD: 5.739273964
 CF RSD%: 3.14524882
 Descrip THg26002-171006-1

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	5.10					86712-1.RAW	7:52:06	931.51	Clean	OK	1
clean				0.00	0.02					86713-1.RAW	7:54:57	3.62	Clean	OK	1
ws				6.29	0.03					86714-1.RAW	7:59:06	11.25	Sample	OK	1
ws				6.29	0.00					86715-1.RAW	8:03:14	5.17	Sample	OK	1
ws				6.29	0.01					86716-1.RAW	8:07:23	7.33	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.01					86717-1.RAW	8:11:31	1.21	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.05					86718-1.RAW	8:15:39	9.10	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					86719-1.RAW	8:19:48	8.58	Sample	OK	1
SEQ-CAL1	A4		1	6.29	0.52			103.96		86720-1.RAW	8:23:56	101.15	Sample	OK	1
SEQ-CAL2	A5		1	6.29	1.03			102.75		86721-1.RAW	8:28:05	193.78	Sample	OK	1
SEQ-CAL3	A6		1	6.29	4.85			97.04		86722-1.RAW	8:32:13	891.63	Sample	OK	1
SEQ-CAL4	A7		1	6.29	19.52			97.61		86723-1.RAW	8:36:22	3568.39	Sample	OK	1
SEQ-CAL5	A8		1	6.29	39.46			98.65		86724-1.RAW	8:40:30	7206.72	Sample	OK	1
SEQ-ICV1	A9		1	6.29	4.85			96.99		86725-1.RAW	8:44:38	891.20	Sample	OK	1
ws				6.29	0.36					86726-1.RAW	9:04:31	71.78	Sample	OK	1
F710248-BLK1	A10		1	6.29	0.02					86727-1.RAW	9:08:40	10.63	Sample	OK	1
F710248-BLK2	A11		1	6.29	0.05					86728-1.RAW	9:12:48	15.15	Sample	OK	1
F710248-BLK3	A12		1	6.29	0.02					86729-1.RAW	9:16:56	9.35	Sample	OK	1
F710248-BLK4	A13		10	6.29	0.52					86730-1.RAW	9:21:05	15.78	Sample	OK	1
F710248-BS1	A14		1	6.29	15.12					86731-1.RAW	9:25:13	2765.38	Sample	OK	1
F710248-BSD1	A15		1	6.29	15.00					86732-1.RAW	9:29:22	2744.00	Sample	OK	1
1709709-01	A16		1	6.29	0.12					86733-1.RAW	9:33:30	27.56	Sample	OK	1
1709709-02	A17		1	6.29	0.12					86734-1.RAW	9:37:39	27.79	Sample	OK	1
1709709-03	A18		1	6.29	1.76					86735-1.RAW	9:41:47	327.18	Sample	OK	1
1709709-04	A19		1	6.29	0.84					86736-1.RAW	9:45:55	159.41	Sample	OK	1
SEQ-CCV1	A20		1	6.29	4.75			94.98		86737-1.RAW	9:50:04	872.91	Sample	OK	1
SEQ-CCB1	A21		1	6.29	0.07			0.00		86738-1.RAW	9:54:12	19.13	Sample	OK	1
1709709-05	B1		1	6.29	0.97					86739-1.RAW	9:58:21	183.70	Sample	OK	1
1709709-06	B2		1	6.29	0.54					86740-1.RAW	10:02:29	105.44	Sample	OK	1
1710042-01	B3		1	6.29	0.04					86741-1.RAW	10:06:38	13.58	Sample	OK	1
1710142-01	B4		1	6.29	2.17					86742-1.RAW	10:10:46	402.56	Sample	OK	1
1710142-02	B5		1	6.29	0.27					86743-1.RAW	10:14:54	55.33	Sample	OK	1
1710142-03	B6		1	6.29	2.28					86744-1.RAW	10:19:03	423.00	Sample	OK	1
1710142-04	B7		1	6.29	0.26					86745-1.RAW	10:23:11	52.92	Sample	OK	1
1710142-05	B8		10	6.29	10.81					86746-1.RAW	10:27:20	203.49	Sample	OK	1
1710142-06	B9		1	6.29	0.26					86747-1.RAW	10:31:28	53.23	Sample	OK	1
1710143-01	B10		1	6.29	0.56					86748-1.RAW	10:35:36	107.58	Sample	OK	1
SEQ-CCV2	B11		1	6.29	4.75			95.02		86749-1.RAW	10:39:45	873.27	Sample	OK	1
SEQ-CCB2	B12		1	6.29	0.06			0.00		86750-1.RAW	10:43:53	16.56	Sample	OK	1
1710143-02	B13		1	6.29	0.53					86751-1.RAW	10:48:02	102.18	Sample	OK	1
1710143-03	B14		1	6.29	0.60					86752-1.RAW	10:52:10	115.58	Sample	OK	1
1710143-04	B15		1	6.29	0.82					86753-1.RAW	10:56:18	155.17	Sample	OK	1
1710143-05	B16		1	6.29	1.20					86754-1.RAW	11:00:27	225.21	Sample	OK	1

1710143-06	B17	1	6.29	0.46		86755-1.RAW	11:04:35	89.74	Sample	OK	1
F710248-DUP1	B18	1	6.29	1.74		86756-1.RAW	11:08:44	323.94	Sample	OK	1
F710248-MS1	B19	1	6.29	6.33	230.84	86757-1.RAW	11:12:52	1160.78	Sample	OK	1
F710248-MSD1	B20	1	6.29	6.31		86758-1.RAW	11:17:01	1157.67	Sample	OK	1
F710248-MS2	B21	1	6.29	6.97	83.85	86759-1.RAW	11:21:09	1277.71	Sample	OK	1
F710248-MSD2	C1	1	6.29	6.80		86760-1.RAW	11:25:17	1246.41	Sample	OK	1
SEQ-CCV3	C2	1	6.29	4.55	91.02	86761-1.RAW	11:29:26	836.69	Sample	OK	1
SEQ-CCB3	C3	1	6.29	0.06	0.00	86762-1.RAW	11:33:34	16.57	Sample	OK	1
EFGS06396 TV !	C4	100	6.29	438.30		86763-1.RAW	11:37:43	806.07	Sample	OK	1
EFGS17786 TV !	C5	100	6.29	457.37		86764-1.RAW	11:41:51	840.87	Sample	OK	1
EFGS18673 TV	C6	100	6.29	899.96		86765-1.RAW	11:46:00	1648.48	Sample	OK	1
EFGS03004 TV	C7	100	6.29	927.19		86766-1.RAW	11:50:08	1698.18	Sample	OK	1
F710204-BLK1	C8	20	6.29	2.55		86767-1.RAW	11:54:16	29.52	Sample	OK	1
F710204-BLK2	C9	20	6.29	1.68		86768-1.RAW	11:58:25	21.60	Sample	OK	1
F710204-BLK3	C10	20	6.29	1.76		86769-1.RAW	12:02:33	22.37	Sample	OK	1
*F710204-BLK4	C11	20	6.29	1.77		86770-1.RAW	12:06:42	22.42	Sample	OK	1
*F710204-BLK5	C12	20	6.29	1.28		86771-1.RAW	12:10:50	17.98	Sample	OK	1
F710204-BS1	C13	20	6.29	92.36		86772-1.RAW	12:14:58	848.96	Sample	OK	1
SEQ-CCV4	C14	1	6.29	4.66	93.18	86773-1.RAW	12:19:07	856.45	Sample	OK	1
SEQ-CCB4	C15	1	6.29	0.05	0.00	86774-1.RAW	12:23:15	15.28	Sample	OK	1
F710204-BSD1	C16	20	6.29	96.77		86775-1.RAW	12:27:24	889.19	Sample	OK	1
F710204-BS2	C17	400	6.29	2120.09		86776-1.RAW	12:31:32	973.45	Sample	OK	1
WS			6.29	0.20		86777-1.RAW	12:40:48	43.36	Sample	OK	1
1709614-01	C18	400	6.29	3790.40		86778-1.RAW	12:44:56	1735.42	Sample	OK	1
WS			6.29	0.25		86779-1.RAW	12:58:28	52.13	Sample	OK	1
1709614-02	C19	400	6.29	5242.08		86780-1.RAW	13:02:36	2397.66	Sample	OK	1
1709614-15	C20	400	6.29	1105.23		86781-1.RAW	13:06:45	510.49	Sample	OK	1
1709614-16	C21	400	6.29	1037.39		86782-1.RAW	13:10:53	479.54	Sample	OK	1
1709614-17	A1	400	6.29	846.76		86783-1.RAW	13:15:02	392.58	Sample	OK	1
1709614-18	A2	400	6.29	1745.47		86784-1.RAW	13:19:10	802.55	Sample	OK	1
1709614-19	A3	400	6.29	2033.50		86785-1.RAW	13:23:19	933.95	Sample	OK	1
1709614-20	A4	400	6.29	2312.91		86786-1.RAW	13:27:27	1061.41	Sample	OK	1
SEQ-CCV5	A5	1	6.29	4.71	94.30	86787-1.RAW	13:31:35	866.66	Sample	OK	1
SEQ-CCB5	A6	1	6.29	0.12	0.00	86788-1.RAW	13:35:44	28.68	Sample	OK	1
1709615-03	A7	400	6.29	738.42		86789-1.RAW	13:39:52	343.15	Sample	OK	1
1709615-04	A8	400	6.29	473.68		86790-1.RAW	13:44:01	222.38	Sample	OK	1
1709615-05	A9	400	6.29	647.39		86791-1.RAW	13:48:09	301.63	Sample	OK	1
1709615-06	A10	400	6.29	437.66		86792-1.RAW	13:52:18	205.95	Sample	OK	1
1709615-07	A11	400	6.29	669.93		86793-1.RAW	13:56:26	311.91	Sample	OK	1
1709615-08	A12	400	6.29	811.41		86794-1.RAW	14:00:34	376.45	Sample	OK	1
1709615-09	A13	400	6.29	3077.77		86795-1.RAW	14:04:43	1410.33	Sample	OK	1
1709615-10	A14	400	6.29	2693.01		86796-1.RAW	14:08:51	1234.81	Sample	OK	1
1709615-11	A15	400	6.29	2193.65		86797-1.RAW	14:13:00	1007.00	Sample	OK	1
1709616-01	A16	400	6.29	496.52		86798-1.RAW	14:17:08	232.80	Sample	OK	1
SEQ-CCV6	A17	1	6.29	4.76	95.11	86799-1.RAW	14:21:16	874.04	Sample	OK	1
SEQ-CCB6	A18	1	6.29	0.11	0.00	86800-1.RAW	14:25:25	25.74	Sample	OK	1
1709617-02	A19	20	6.29	115.71		86801-1.RAW	14:29:33	1061.97	Sample	OK	1

1709617-03	A20	20	6.29	69.97		86802-1.RAW	14:33:42	644.66	Sample	OK	1
1709615-06RE1	A21	100	6.29	447.05		86803-1.RAW	14:37:50	822.04	Sample	OK	1
F710204-DUP1	B1	400	6.29	5093.26		86804-1.RAW	14:41:59	2329.77	Sample	OK	1
F710204-MS1	B2	400	6.29	8222.93	161.42	86805-1.RAW	14:46:07	3757.48	Sample	OK	1
F710204-MSD1	B3	400	6.29	7884.19		86806-1.RAW	14:50:15	3602.95	Sample	OK	1
F710204-MS2	B4	400	6.29	9603.45	121.78	86807-1.RAW	14:54:24	4387.25	Sample	OK	1
F710204-MSD2	B5	400	6.29	9729.64		86808-1.RAW	14:58:32	4444.82	Sample	OK	1
SEQ-CCV7	B6	1	6.29	4.96	99.25	86809-1.RAW	15:02:41	911.85	Sample	OK	1
SEQ-CCB7	B7	1	6.29	0.20	0.00	86810-1.RAW	15:06:49	42.06	Sample	OK	1
SnCl2 1705960	B8	1	6.29	0.07		86811-1.RAW	15:10:57	19.50	Sample	OK	1
CLEAN			0.00	0.02		86812-1.RAW	15:13:49	4.44	Clean	OK	1
CLEAN						86813-1.RAW	15:16:40	10.60	Clean	OK	1
WS						86814-1.RAW	15:20:49	24.57	Sample	OK	1
WS						86815-1.RAW	15:24:57	11.10	Sample	OK	1

Failing Data Report - 7J09010

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Becy 10/9/17
Analyst Reviewed By Date

Dan Maxam 10/9/17
Peer Reviewed By Date

ANALYSIS SEQUENCE

7J09009



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J09009-IBL1	QC	1			
7J09009-IBL2	QC	2			
7J09009-IBL3	QC	3			
7J09009-CAL1	QC	4	1704505		
7J09009-CAL2	QC	5	1704506		
7J09009-CAL3	QC	6	1704507		
7J09009-CAL4	QC	7	1704508		
7J09009-CAL5	QC	8	1704509		
7J09009-ICV1	QC	9	1705628		
F710248-BLK1	QC	10			
F710248-BLK2	QC	11			
F710248-BLK3	QC	12			
F710248-BLK4	QC	13			
F710248-BS1	QC	14			
F710248-BSD1	QC	15			
1709709-01	Hg-CVAFS-W-1631	16			
1709709-02	Hg-CVAFS-W-1631	17			
1709709-03	Hg-CVAFS-W-1631	18			
1709709-04	Hg-CVAFS-W-1631	19			
7J09009-CCV1	QC	20	1705628		
7J09009-CCB1	QC	21			
1709709-05	Hg-CVAFS-W-1631	22			
1709709-06	Hg-CVAFS-W-1631	23			
1710042-01	Hg-CVAFS-W-1631	24			Do not oven samples (CCV 90-110%, CCB <), <1/2 PQL
1710142-01	Hg-CVAFS-W-1631	25			
1710142-02	Hg-CVAFS-W-1631	26			
1710142-03	Hg-CVAFS-W-1631	27			
1710142-04	Hg-CVAFS-W-1631	28			
1710142-05	Hg-CVAFS-W-1631	29			
1710142-06	Hg-CVAFS-W-1631	30			
1710143-01	Hg-CVAFS-W-1631	31			Scan all data for level IV report
7J09009-CCV2	QC	32	1705628		
7J09009-CCB2	QC	33			
1710143-02	Hg-CVAFS-W-1631	34			Scan all data for level IV report
1710143-03	Hg-CVAFS-W-1631	35			Scan all data for level IV report

ANALYSIS SEQUENCE

7J09010

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J09010-IBL1	QC	1			
7J09010-IBL2	QC	2			
7J09010-IBL3	QC	3			
7J09010-CAL1	QC	4	1704505		
7J09010-CAL2	QC	5	1704506		
7J09010-CAL3	QC	6	1704507		
7J09010-CAL4	QC	7	1704508		
7J09010-CAL5	QC	8	1704509		
7J09010-ICV1	QC	9	1705628		
7J09010-CCV1	QC	10	1705628		
7J09010-CCB1	QC	11			
7J09010-CCV2	QC	12	1705628		
7J09010-CCB2	QC	13			
7J09010-CCV3	QC	14	1705628		
7J09010-CCB3	QC	15			
F710204-BLK1	QC	16			
F710204-BLK2	QC	17			
F710204-BLK3	QC	18			
F710204-BLK4	QC	19			
F710204-BLK5	QC	20			
F710204-BS1	QC	21			
7J09010-CCV4	QC	22	1705628		
7J09010-CCB4	QC	23			
F710204-BSD1	QC	24			
F710204-BS2	QC	25			
1709614-01	Hg-CVAFS-T-7030	26			
1709614-02	Hg-CVAFS-T-7030	27			
1709614-15	Hg-CVAFS-T-7030	28			
1709614-16	Hg-CVAFS-T-7030	29			
1709614-17	Hg-CVAFS-T-7030	30			
1709614-18	Hg-CVAFS-T-7030	31			
1709614-19	Hg-CVAFS-T-7030	32			
1709614-20	Hg-CVAFS-T-7030	33			
7J09010-CCV5	QC	34	1705628		
7J09010-CCB5	QC	35			

Due Date: 10/20/2017

45 of 102

Page 1 of 2

ANALYSIS SEQUENCE

7J09010

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709615-03	Hg-CVAFS-T-7030	36			
1709615-04	Hg-CVAFS-T-7030	37			
1709615-05	Hg-CVAFS-T-7030	38			
1709615-06	Hg-CVAFS-T-7030	39			
1709615-07	Hg-CVAFS-T-7030	40			
1709615-08	Hg-CVAFS-T-7030	41			
1709615-09	Hg-CVAFS-T-7030	42			
1709615-10	Hg-CVAFS-T-7030	43			
1709615-11	Hg-CVAFS-T-7030	44			
1709616-01	Hg-CVAFS-T-7030	45			
7J09010-CCV6	QC	46	1705628		
7J09010-CCB6	QC	47			
1709617-02	Hg-CVAFS-T-7030	48			
1709617-03	Hg-CVAFS-T-7030	49			
1709615-06RE1	Hg-CVAFS-T-7030	50			Added 10/9/2017 by BC
F710204-DUP1	QC	51			
F710204-MS1	QC	52			
F710204-MSD1	QC	53			
F710204-MS2	QC	54			
F710204-MSD2	QC	55			
7J09010-CCV7	QC	56	1705628		
7J09010-CCB7	QC	57			

Beck 10/9/17
 Samples Loaded By Date

Beck 10/9/17
 Data Processed By Date

102nd rd
 10/6/17

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710248-BLK1	Blank	100	101					SOURCE 1710143-07
F710248-BLK2	Blank	100	101					SOURCE 1710143-07
F710248-BLK3	Blank	100	101					SOURCE 1710143-07
F710248-BLK4	Blank	10	20					
F710248-BS1	LCS	50	50.5	1705054	100			
F710248-BSD1	LCS Dup	50	50.5	1705054	100			
F710248-DUP1	Duplicate [1709709-03]	100	101					
F710248-MS1	Matrix Spike [1709709-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710248-MS2	Matrix Spike [1710142-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710248-MSD1	Matrix Spike Dup [1709709-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710248-MSD2	Matrix Spike Dup [1710142-03]	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705054	Nist 1641D 200X	21-Aug-18 00:00	1705580	0.2 N BRCL SEPTEMBER 2017	14-Mar-18 00:00
			1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709709-01	OS-RB-20170921	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	
1709709-02	OS-RB-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	
1709709-03	NC376OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	
1709709-04	NC376OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	
1709709-05	NC377OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	
1709709-06	NC377OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	
1710042-01	October 2017 Monthly Water ICPMS Sink 1	100	101	-	-	-	Do not oven samples (CCV 90-110%, t	
1710142-01	Lagoons	100	101	-	-	-		
1710142-02	Lagoons Field Blank	100	101	-	-	-		
1710142-03	Clarifier	100	101	-	-	-		
1710142-04	Clarifier Field Blank	100	101	-	-	-		
1710142-05	A149	10	20	-	-	-		
1710142-06	A149 Blank	100	101	-	-	-		
1710143-01	OL-2678-01	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-02	OL-2678-02	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-03	OL-2678-03	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-04	OL-2678-04	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-05	OL-2678-05	100	101	-	-	-	Preservation Blank Created Scan all dat	
1710143-06	OL-2678-06	100	101	-	-	-	Preservation Blank Created Scan all dat	

PREPARATION BENCH SHEET

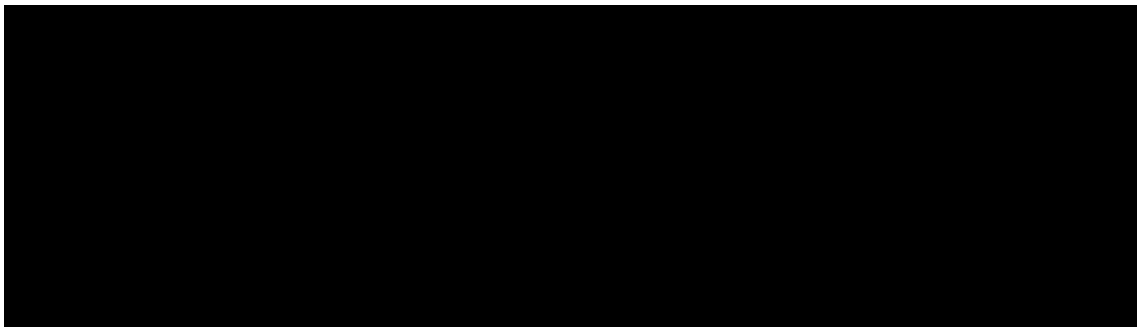
F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017



PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710204-BLK1	Blank	0.25	20					
F710204-BLK2	Blank	0.25	20					
F710204-BLK3	Blank	0.25	20					
F710204-BLK4	Blank	0.284	20					Pre-homogenization Blank for 1709615
F710204-BLK5	Blank	0.265	20					Post-homogenization Blank for 179615
F710204-BS1	LCS	0.25	20	1704421	20			
F710204-BS2	LCS	0.128	20	1705412	128			
F710204-BSD1	LCS Dup	0.25	20	1704421	20			
F710204-DUP1	Duplicate [1709614-02]	0.272	20					
F710204-MS1	Matrix Spike [1709614-01]	0.278	20	1705554	100			
F710204-MS2	Matrix Spike [1709614-02]	0.276	20	1705554	100			
F710204-MSD1	Matrix Spike Dup [1709614-01]	0.26	20	1705554	100			
F710204-MSD2	Matrix Spike Dup [1709614-02]	0.273	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705823	5% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709614-01	OB-01_17ET001_091617_TOM_01_WB	0.277	20	QC	-	-	MS/MSD	
1709614-02	OB-01_17ET001_091617_TOM_02_WB	0.274	20	-	-	-	Sample contains enough volume for QC	
1709614-15	OB-01_17ET004_091617_TOM_15_WB	0.272	20	-	-	-		
1709614-16	OB-01_17ET004_091617_TOM_16_WB	0.268	20	-	-	-		
1709614-17	OB-01_17ET005_091617_TOM_17_WB	0.257	20	-	-	-		
1709614-18	OB-01_17ET006_091617_TOM_18_WB	0.257	20	-	-	-		
1709614-19	OB-01_17ET007_091617_TOM_19_WB	0.254	20	-	-	-		
1709614-20	OB-01_17ET008_091617_TOM_20_WB	0.254	20	-	-	-		
1709615-03	ES-13_17ET719_091817_TOM_03_WB	0.279	20	-	-	-		
1709615-04	ES-13_17ET719_091817_TOM_04_WB	0.262	20	-	-	-		
1709615-05	ES-13_17ET719_091817_TOM_05_WB	0.284	20	-	-	-		
1709615-06	ES-13_17ET719_091817_TOM_06_WB	0.272	20	-	-	-		
1709615-06RE1	ES-13_17ET719_091817_TOM_06_WB	0.272	20	-	-	-	Added 10/9/2017 by BC	Added 10/9/2017 by BC
1709615-07	ES-13_17ET722_091817_TOM_07_WB	0.256	20	-	-	-		
1709615-08	ES-13_17ET722_091817_TOM_08_WB	0.269	20	-	-	-		
1709615-09	ES-13_17ET723_091817_TOM_09_WB	0.257	20	-	-	-		
1709615-10	ES-13_17ET723_091817_TOM_10_WB	0.257	20	-	-	-		
1709615-11	ES-13_17ET717_091817_TOM_11_WB	0.255	20	-	-	-		
1709616-01	ES-FP_17ET658_091517_TOM_01_WB	0.266	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710204

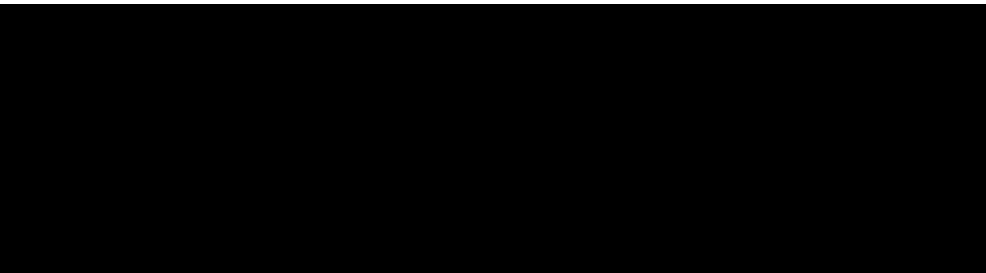
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

1709617-02	FRB-01_17SN001_091217_MUM_02_WB	0.272	20	-	-	-		
1709617-03	FRB-01_17SN001_091217_MUM_03_WB	0.269	20	-	-	-		



BC 10/6/17
2600-2

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710248-BLK1	Blank	100	101					1X source 1710143-07
F710248-BLK2	Blank	100	101					1X
F710248-BLK3	Blank	100	101					1X
F710248-BLK4	Blank	100 10	101 20					10X
F710248-BS1	LCS	100	101	1705580	100			1X
F710248-BSD1	LCS Dup	100	101		100			1X
F710248-DUP1	Duplicate 1709709-03	100	101					1X
F710248-MS1	Matrix Spike 1709709-03	100	101	1704422	25			1X
F710248-MS2	Matrix Spike 17011710142-03	100	101	1704422	25			1X
F710248-MSD1	Matrix Spike Dup 1709709-03	100	101	1704422	25			1X
F710248-MSD2	Matrix Spike Dup 1710142-03	100	101	1704422	25			1X

Standard ID(s): Description: Expiration:

1X = 50µL
5µL = 10X

1705580
1705611
1703182
1705979
1705610

PREPARATION BENCH SHEET

F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709709-01	OS-RB-20170921	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	IX
1709709-02	OS-RB-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: WSP-RB-20170921-11	IX
1709709-03	NC376OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	IX
1709709-04	NC376OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC376-20170921	IX
1709709-05	NC377OS-20170921	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	IX
1709709-06	NC377OS-20170921 Dissolved	100	101	-	-	Scan Dat	Name on COC: NC377_20170921-201	IX
1710042-01	October 2017 Monthly Water ICPMS Sink 1	100	101	-	-	-	Do not oven samples (CCV 90-110%, t	IX
1710142-01	Lagoons	100	101	-	-	-		IX
1710142-02	Lagoons Field Blank	100	101	-	-	-		IX
1710142-03	Clarifier	100	101	-	-	-		IX
1710142-04	Clarifier Field Blank	100	101	-	-	-		IX
1710142-05	A149	100	101	-	-	-		10X
1710142-06	A149 Blank	100	101	-	-	-		IX
1710143-01	OL-2678-01	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-02	OL-2678-02	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-03	OL-2678-03	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-04	OL-2678-04	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-05	OL-2678-05	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1710143-06	OL-2678-06	100	101	-	-	-	Preservation Blank Created Scan all dat	IX

010701
010501
010302

Due Date: 10/9/2017

PREPARATION BENCH SHEET

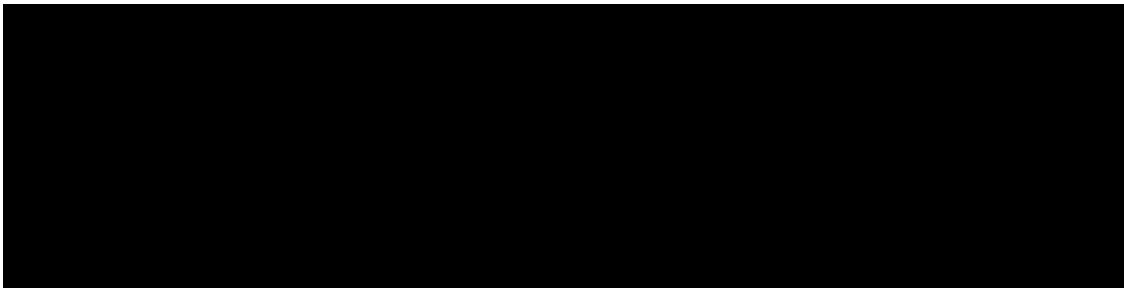
F710248

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/6/2017



Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 9/26/17 Time Completed: 17:27

Work Orders: 1709700
1709709

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1704915

Pipette SN: J07631

Cal. Date: 9/20/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1709700-01A	3.00	3.00	Y			
1709700-02A	3.00	3.00	Y			
1709700-03A	3.00	3.00	Y			
1709700-04A	3.00	3.00	Y			
1709709-01A	3.00	3.00	Y			
1709709-02A	3.00	3.00	Y			
1709709-03A	3.00	3.00	Y			
1709709-04A	3.00	3.00	Y			
1709709-05A	3.00	3.00	Y			
1709709-06A	3.00	3.00	Y			
LM 9/26/17						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
10/5/17

Total Mercury Preservation Logbook

Work Orders: 1710142-1710142
1710143, 1710146
 BrCl LIMS ID: 1705580
 Pipette SN: 507631
 Cal. Date: 10/4/17

Initial preservation and/or verification
 Technician: CSP Date: 10/4/17 Time Completed: 1730

Additional preservation and/or verification (as needed)
 Technician: _____ Date: _____ Time Completed: _____
 Technician: _____ Date: _____ Time Completed: _____

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710143-01A	300	3.00	y			
1710143-02A	300	3.00	y			
1710143-03A	300	3.00	y			
1710143-04A	300	3.00	y			
1710143-05A	300	3.00	y			
1710143-06A	300	3.00	y			
1710143-07A	300	3.00	y			
1710142-01A	300	3.00	y			
1710142-02A	300	3.00	y			
1710142-03A	300	3.00	y			
1710142-04A	300	3.00	y			
1710142-05B	10	10	y			
1710142-06A	300	3.00	y			
1710146-01A	300	3.00	y			
1710146-02A	300	3.00	y			
1710146-03A	300	3.00	y			

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

CSP
10/4/17

PREPARATION BENCH SHEET

2600-2
 BCL 10/6/17

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710204-BLK1	Blank	0.25	20					20X
F710204-BLK2	Blank	0.25	20					20X
F710204-BLK3	Blank	0.25	20					20X
F710204-BLK4	Blank	0.284	20					Pre-homogenization Blank for 1709615 20X
F710204-BLK5	Blank	0.265	20					Post-homogenization Blank for 179615 20X
F710204-BS1	LCS	0.25	20	1704421	20			20X
F710204-BS2	LCS	0.128	20	1705412	128			400X
F710204-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710204-DUP1	Duplicate [1709614-02]	0.272	20					400X
F710204-MS1	Matrix Spike [1709614-01]	0.278	20	1705554	100			400X
F710204-MS2	Matrix Spike [1709614-02]	0.276	20	1705554	100			400X 400X
F710204-MSD1	Matrix Spike Dup [1709614-01]	0.26	20	1705554	100			400X
F710204-MSD2	Matrix Spike Dup [1709614-02]	0.273	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705823	5% BrCl	22-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00

400X = 125µL
 100X = 500µL
 20X = 2.5µL

1705611
 1705610
 1703182
 1705779

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709614-01	OB-01_17ET001_091617_TOM_01_WB	0.277	20	QC	-	-	MS/MSD 400	
1709614-02	OB-01_17ET001_091617_TOM_02_WB	0.274	20	-	-	-	Sample contains enough volume for QC 400X	
1709614-15	OB-01_17ET004_091617_TOM_15_WB	0.272	20	-	-	-	400X	
1709614-16	OB-01_17ET004_091617_TOM_16_WB	0.268	20	-	-	-	400X	
1709614-17	OB-01_17ET005_091617_TOM_17_WB	0.257	20	-	-	-	400X	
1709614-18	OB-01_17ET006_091617_TOM_18_WB	0.257	20	-	-	-	400X	
1709614-19	OB-01_17ET007_091617_TOM_19_WB	0.254	20	-	-	-	400X	
1709614-20	OB-01_17ET008_091617_TOM_20_WB	0.254	20	-	-	-	400X	
1709615-03	ES-13_17ET719_091817_TOM_03_WB	0.279	20	-	-	-	400X	
1709615-04	ES-13_17ET719_091817_TOM_04_WB	0.262	20	-	-	-	400X	
1709615-05	ES-13_17ET719_091817_TOM_05_WB	0.284	20	-	-	-	400X	
1709615-06	ES-13_17ET719_091817_TOM_06_WB	0.272	20	-	-	-	400X → 100X	
1709615-07	ES-13_17ET722_091817_TOM_07_WB	0.256	20	-	-	-	400X	
1709615-08	ES-13_17ET722_091817_TOM_08_WB	0.269	20	-	-	-	400X	
1709615-09	ES-13_17ET723_091817_TOM_09_WB	0.257	20	-	-	-	400X	
1709615-10	ES-13_17ET723_091817_TOM_10_WB	0.257	20	-	-	-	400X	
1709615-11	ES-13_17ET717_091817_TOM_11_WB	0.255	20	-	-	-	400X	
1709616-01	ES-FP_17ET658_091517_TOM_01_WB	0.266	20	-	-	-	400X	
1709617-02	FRB-01_17SN001_091217_MUM_02_WB	0.272	20	-	-	-	20X	

PREPARATION BENCH SHEET

F710204

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

1709617-03	FRB-01_17SN001_091217_MUM_03_WB	0.269	20	-	-	-	20x	
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Technician: WPF Batch#: F710204 Date: 10/3/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19 (0.0204) Calibrated? Yes No Therm.#: 1404/801 Calibrated? Yes No
 Time in: 17:15 Actual Temp. (raw): 80.4 °C w/ CF: 80.1 °C
 Time out: 19:15 Actual Temp. (raw): Timer °C w/ CF: Timer °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705823) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: BL 10/3/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0267852 Calibration Date: 10/2/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705859 Dispenser #: 0262749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 1746
 Glass Vial # 0008124 Boiling Chip lot # 1702551 *Hotblock Position: M5

Vial #	Sample ID Number	Sample Size		Vial #	Sample ID Number	Sample Size		CRM LIMS ID	Comments
		<input type="checkbox"/> mL	<input type="checkbox"/> µg			<input type="checkbox"/> mL	<input type="checkbox"/> µg		
1	F710204 - BLK1	0.257	0.257	23	1709615 - 07	0.256		BS2	
2	F710204 - BLK2	0.260	0.260	24	1709615 - 08	0.269		BS2	BS/BS = DUBBLE LIMS 1709412
3	F710204 - BLK3	0.256	0.256	25	1709615 - 09	0.257			
4	F710204 - BS1	0.257	0.257	26	1709615 - 10	0.257			
5	F710204 - BSD1	0.254	0.254	27	1709615 - 11	0.255			MS1/MS2 1 source = 1709614 - 01
6	1709614 - 01	0.277		28	1709616 - 01	0.266			DUP1/MS2/MSD2 source = 1709614 - 02
7	F710204 - MS1	0.278		29	1709617 - 02	0.272			
8	F710204 - MSD1	0.260		30	1709617 - 03	0.269			BS/BS1 spiked with 20µl of 1704421
9	1709614 - 02	0.274		31	F710204 - BS2	0.1280			
10	F710204 - DUP1	0.272		32	F710204 - BLK4	0.284			
11	F710204 - MS2	0.276		33	F710204 - BLK5	0.265			BLK4 + 5 are Pre/Post blanks for 1709615 -
12	F710204 - MSD2	0.273		34					
13	1709614 - 15	0.272		35					
14	1709614 - 16	0.268		36					
15	1709614 - 17	0.257		37					BS/BS spiked with 20 µl of 1704421 # Redundant art
16	1709614 - 18	0.257		38					
17	1709614 - 19	0.254		39					
18	1709614 - 20	0.254		40					
19	1709615 - 03	0.279		41					Pre/Post blanks for 1709616 are in batch F710207
20	1709615 - 04	0.262		42					
21	1709615 - 05	0.284		43					Pre/Post blanks for in batch F710196
22	1709615 - 06	0.272		44					Pre/Post blanks for batch F710214

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J09009, 7J09010
Reviewer: DM	Dataset ID(s): THg26002-171006-1
Date: 10/9/2017	WO (s) #:
Batch #(s): F710248, F710204	

• Select the correct preparation method.

Analyte	Prep Method	Matrix
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric
<input checked="" type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation
<input type="checkbox"/> Hg0	NA	NA
<input type="checkbox"/> Inorg Hg	NA	NA

Analyst Initials: BC **Reviewer Initials:** DM

- | | | | |
|---|---|--|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | | | |
| (b) Check 5% of transcription from Instrument print-out and Excel file | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | | | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 50 ml / aliquot = Excel dilution value | | | |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? _____ | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7J09009, 7J09010
Reviewer:	0	Dataset ID(s):	THg26002-171006-1
Date:	10/9/2017	WO (s) #:	0
Batch #(s):	F710248, F710204		0

Analyst Initials

BC

Reviewer Initials

DM

5b. Has the B/C section data been uploaded?

YES NO N/A

QA/QC Data Checked

6. RSD CF (≤ 15%)

PASS FAIL

Comments: _____

7. The calibration curve included a minimum of 5 Standards

YES NO

Comments: _____

8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)

PASS FAIL

9. ICV and CCV % Recoveries EPA 1631E (77-123%)

PASS FAIL

Comments: _____

10. Do all calibration points pass acceptance criteria?

YES NO

Comments: _____

11. Are qualifiers consistent with the data review flowcharts?

YES NO N/A

Comments: _____

12. Explain any items on the failed data report from Element

Comments: _____

13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list)

PASS FAIL

(a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:

(b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?

YES NO

(c) Was a BrCl Blank analyzed for each preservation level?

YES NO N/A

(d) Are Preparation Blanks summarized on QC page?

YES NO

14. Filtration Blank Prepared (if yes, use FB qualifier)

YES NO

(a) Filtration Blank prep date same as associated samples' prep date

YES NO N/A

(b) Filtration Blank absolute value < PQL or <2.2xMDL for WI

YES NO N/A

15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?

PASS FAIL

Comments: _____

16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?

PASS FAIL

Comments: _____

17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)

YES NO N/A

18. Is the correct 'Source' designated for MD/MS/MSD?

YES NO

19. For digested preps: was there a spike witness signature & date on the prep bench sheet?

YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7J09009, 7J09010
Reviewer:	0	Dataset ID(s):	THg26002-171006-1
Date:	10/9/2017	WO (s) #:	0
Batch #(s):	F710248, F710204		0

Analyst Initials BC Reviewer Initials DM

20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? YES NO
- Comments: _____
21. Are all samples within instrument calibration range? (or at minimum dilution size) PASS FAIL
- Comments: _____
22. Are the samples run at the correct dilution level for the method? YES NO
- Comments: _____
23. Dissolved < Total (if applicable) YES NO N/A
- Comments: _____
24. Effluent < Influent (visually confirm if needed) YES NO N/A
- Comments: _____
25. Are re-runs noted with reason? YES NO N/A
- Comments: _____
26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? YES NO N/A
- Comments: _____
27. Is the B trap <5% A Traps YES NO N/A
- Comments: _____
28. Are spiked trap recoveries 75-125% of true value? YES NO N/A
- Comments: _____
29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
- Comments: _____
30. Have re-extracts been created for non-reportable samples? YES NO N/A
31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. YES NO N/A
32. Does the data set need scanning? YES N/A
33. Does the dataset have an LOQ/LOQ or DOC? YES N/A
34. Water samples: has the preservation log been included in dataset for final volume verification? YES NO N/A
35. Water samples-is the final volume correct in the sequence? YES NO N/A
- Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs**
36. Date of analyst IDOC/CDOC: 1/11/17, 1/27/17 IDOC/CDOC within last 12 months? YES NO
37. Date of analyst's SOP reading for method: 5/20/17 Current SOP revision read? YES NO
38. Date of LOD: 5/9/17, 4/26/17 LOD within last 3 months? YES NO
39. Date of LOQ: 5/9/17, 4/26/17 LOQ within last 3 months? YES NO

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.



Frontier Global Sciences

THg26003-171006-2

Analysis Datasheet for Total Mercury

Date of Analysis: October 06, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7J09011, 7J09012, 7J09013

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	80.95 units	161.90	74.85 units	149.71	92.3 %Rec
SEQ-CAL2	1	1.00 ng/L	168.95 units	168.95	162.85 units	162.85	100.4 %Rec
SEQ-CAL3	1	5.00 ng/L	808.83 units	161.77	802.73 units	160.55	99.0 %Rec
SEQ-CAL4	1	20.00 ng/L	3332.46 units	166.62	3326.36 units	166.32	102.6 %Rec
SEQ-CAL5	1	40.00 ng/L	6863.92 units	171.60	6857.82 units	171.45	105.7 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
162.17	+/- 8.09	5.0% RSD	166.17

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.10 units	±0.98	0.04 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	9.399 ng/L	±2.232
BLK	2	3	3.195 ng/L	±1.047
BLK	3	2	8.490 ng/L	±2.422
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: DM 10/10/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	CAL	SEQ-IBL1	1	10/6/2017 8:10:32	77089-1.RAW	8:10:32 AM	5.02			-1.1	-0.007	-0.007	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	10/6/2017 8:14:41	77090-1.RAW	8:14:41 AM	6.92			0.8	0.005	0.005	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	10/6/2017 8:18:49	77091-1.RAW	8:18:49 AM	6.35			0.3	0.002	0.002	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	10/6/2017 8:22:57	77092-1.RAW	8:22:57 AM	80.95			74.9	0.462	0.462	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	10/6/2017 8:27:06	77093-1.RAW	8:27:06 AM	168.95			162.9	1.004	1.004	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	10/6/2017 8:31:14	77094-1.RAW	8:31:14 AM	808.83			802.7	4.950	4.950	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	10/6/2017 8:35:23	77095-1.RAW	8:35:23 AM	3332.46			3326.4	20.511	20.511	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	10/6/2017 8:39:31	77096-1.RAW	8:39:31 AM	6863.92			6857.8	42.287	42.287	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	10/6/2017 8:43:39	77097-1.RAW	8:43:39 AM	893.02			886.9	5.469	5.469	ng/L	
Hg2600-3	BC	SAM	WS		10/6/2017 8:54:01	77099-1.RAW	8:54:01 AM	114.53		x	108.4	0.669	0.000	ng/L	
Hg2600-3	BC	BLK	F710193-BLK4	100	10/6/2017 8:58:10	77098-2.RAW	8:58:10 AM	25.20	1		19.1	0.118	11.780	ng/L	
Hg2600-3	BC	BLK	F710193-BLK5	100	10/6/2017 9:02:18	77100-1.RAW	9:02:18 AM	20.80	1		14.7	0.091	9.066	ng/L	
Hg2600-3	BC	BLK	F710193-BLK6	100	10/6/2017 9:06:27	77101-1.RAW	9:06:27 AM	18.02	1		11.9	0.074	7.352	ng/L	
Hg2600-3	BC	SAM	1709806-31RE1	100	10/6/2017 9:10:35	77102-1.RAW	9:10:35 AM	44.90	1		38.8	0.145	14.528	ng/L	
Hg2600-3	BC	SAM	1709806-31BRE1	100	10/6/2017 9:14:43	77103-1.RAW	9:14:43 AM	173.91	1		167.8	0.941	94.078	ng/L	
Hg2600-3	BC	BLK	F710229-BLK1	1	10/6/2017 9:18:52	77104-1.RAW	9:18:52 AM	9.36	x		3.3	0.020	0.020	ng/L	
Hg2600-3	BC	BLK	F710229-BLK2	1	10/6/2017 9:23:00	77105-1.RAW	9:23:00 AM	8.43	x		2.3	0.014	0.014	ng/L	
Hg2600-3	BC	BLK	F710229-BLK3	1	10/6/2017 9:27:09	77106-1.RAW	9:27:09 AM	8.22	x		2.1	0.013	0.013	ng/L	
Hg2600-3	BC	SAM	F710229-BS1	1	10/6/2017 9:31:17	77107-1.RAW	9:31:17 AM	2620.31	x		2614.2	16.120	16.120	ng/L	
Hg2600-3	BC	SAM	F710229-BSD1	1	10/6/2017 9:35:26	77108-1.RAW	9:35:26 AM	2691.96	x		2685.9	16.562	16.562	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	10/6/2017 9:39:34	77109-1.RAW	9:39:34 AM	877.43			871.3	5.373	5.373	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	10/6/2017 9:43:42	77110-1.RAW	9:43:42 AM	38.44			32.3	0.199	0.199	ng/L	
Hg2600-3	BC	SAM	1710086-01	1	10/6/2017 9:47:51	77111-1.RAW	9:47:51 AM	212.91	x		206.8	1.275	1.275	ng/L	
Hg2600-3	BC	SAM	1710086-02	1	10/6/2017 9:51:59	77112-1.RAW	9:51:59 AM	596.28	x		590.2	3.639	3.639	ng/L	
Hg2600-3	BC	SAM	1710086-03	1	10/6/2017 9:56:08	77113-1.RAW	9:56:08 AM	70.36	x		64.3	0.396	0.396	ng/L	
Hg2600-3	BC	SAM	1710087-01	50	10/6/2017 10:00:16	77114-1.RAW	10:00:16 AM	74.98	x		68.9	0.425	21.237	ng/L	
Hg2600-3	BC	SAM	1710087-02	50	10/6/2017 10:04:24	77115-1.RAW	10:04:24 AM	70.54	x		64.4	0.397	19.869	ng/L	
Hg2600-3	BC	SAM	1710087-03	1	10/6/2017 10:08:33	77116-1.RAW	10:08:33 AM	86.99	x		80.9	0.499	0.499	ng/L	
Hg2600-3	BC	SAM	1710087-04	1	10/6/2017 10:12:41	77117-1.RAW	10:12:41 AM	3541.36	x		3535.3	21.799	21.799	ng/L	
Hg2600-3	BC	SAM	1710087-05	1	10/6/2017 10:16:50	77118-1.RAW	10:16:50 AM	4516.57	x		4510.5	27.813	27.813	ng/L	
Hg2600-3	BC	SAM	1710087-06	1	10/6/2017 10:20:58	77119-1.RAW	10:20:58 AM	85.60	x		79.5	0.490	0.490	ng/L	
Hg2600-3	BC	SAM	1710087-07	1	10/6/2017 10:25:07	77120-1.RAW	10:25:07 AM	3212.21	x		3206.1	19.770	19.770	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	10/6/2017 10:29:15	77121-1.RAW	10:29:15 AM	879.34			873.2	5.385	5.385	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	10/6/2017 10:33:23	77122-1.RAW	10:33:23 AM	39.72			33.6	0.207	0.207	ng/L	
Hg2600-3	BC	SAM	1710088-01	1	10/6/2017 10:37:32	77123-1.RAW	10:37:32 AM	432.55	x		426.5	2.630	2.630	ng/L	
Hg2600-3	BC	SAM	1710088-02	1	10/6/2017 10:41:40	77124-1.RAW	10:41:40 AM	280.58	x		274.5	1.693	1.693	ng/L	
Hg2600-3	BC	SAM	1710088-03	1	10/6/2017 10:45:49	77125-1.RAW	10:45:49 AM	243.15	x		237.1	1.462	1.462	ng/L	
Hg2600-3	BC	SAM	1710088-04	1	10/6/2017 10:49:57	77126-1.RAW	10:49:57 AM	243.15	x		237.1	1.462	1.462	ng/L	
Hg2600-3	BC	SAM	1710088-05	1	10/6/2017 10:54:05	77127-1.RAW	10:54:05 AM	251.26	x		245.2	1.512	1.512	ng/L	
Hg2600-3	BC	SAM	1710088-06	1	10/6/2017 10:58:14	77128-1.RAW	10:58:14 AM	194.67	x		188.6	1.163	1.163	ng/L	
Hg2600-3	BC	SAM	1710088-07	1	10/6/2017 11:02:22	77129-1.RAW	11:02:22 AM	43.05	x		37.0	0.228	0.228	ng/L	
Hg2600-3	BC	SAM	1710087-08	1	10/6/2017 11:06:31	77130-1.RAW	11:06:31 AM	2874.73	x		2868.6	17.689	17.689	ng/L	
Hg2600-3	BC	SAM	1710087-09	1	10/6/2017 11:10:39	77131-1.RAW	11:10:39 AM	62.29	x		56.2	0.347	0.347	ng/L	
Hg2600-3	BC	SAM	1710087-01RE1	5	10/6/2017 11:14:48	77132-1.RAW	11:14:48 AM	389.76	x		383.7	2.366	11.829	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	10/6/2017 11:18:56	77133-1.RAW	11:18:56 AM	839.35			833.3	5.138	5.138	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	10/6/2017 11:23:04	77134-1.RAW	11:23:04 AM	31.79			25.7	0.158	0.158	ng/L	
Hg2600-3	BC	SAM	1710087-02RE1	5	10/6/2017 11:27:13	77135-1.RAW	11:27:13 AM	383.40	x		377.3	2.327	11.633	ng/L	
Hg2600-3	BC	SAM	F710229-DUP1	1	10/6/2017 11:31:21	77136-1.RAW	11:31:21 AM	221.35	x		215.3	1.327	1.327	ng/L	
Hg2600-3	BC	SAM	F710229-MS1	1	10/6/2017 11:35:30	77137-1.RAW	11:35:30 AM	1037.46	x		1031.4	6.360	6.360	ng/L	
Hg2600-3	BC	SAM	F710229-MSD1	1	10/6/2017 11:39:38	77138-1.RAW	11:39:38 AM	1060.53	x		1054.4	6.502	6.502	ng/L	
Hg2600-3	BC	SAM	F710229-MS2	1	10/6/2017 11:43:47	77139-1.RAW	11:43:47 AM	1133.18	x		1127.1	6.950	6.950	ng/L	
Hg2600-3	BC	SAM	F710229-MSD2	1	10/6/2017 11:47:55	77140-1.RAW	11:47:55 AM	1159.40	x		1153.3	7.112	7.112	ng/L	
Hg2600-3	BC	BLK	F710207-BLK1	20	10/6/2017 11:52:03	77141-1.RAW	11:52:03 AM	39.81	2		33.7	0.208	4.158	ng/L	
Hg2600-3	BC	BLK	F710207-BLK2	20	10/6/2017 11:56:12	77142-1.RAW	11:56:12 AM	33.25	2		27.2	0.167	3.349	ng/L	
Hg2600-3	BC	BLK	F710207-BLK3	20	10/6/2017 12:00:20	77143-1.RAW	12:00:20 PM	22.96	2		16.9	0.104	2.080	ng/L	
Hg2600-3	BC	SAM	*F710207-BLK4	20	10/6/2017 12:04:29	77144-1.RAW	12:04:29 PM	20.94	2		14.8	-0.068	-1.365	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	10/6/2017 12:08:37	77145-1.RAW	12:08:37 PM	791.21			785.1	4.841	4.841	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	CAL	SEQ-CCB4	1	10/6/2017 12:12:45	77146-1.RAW	12:12:45 PM	20.81							
Hg2600-3	BC	SAM	*F710207-BLK5	20	10/6/2017 12:16:54	77147-1.RAW	12:16:54 PM	19.18	2		14.7	0.091	0.091	ng/L	
Hg2600-3	BC	SAM	F710207-BS1	20	10/6/2017 12:21:02	77148-1.RAW	12:21:02 PM	826.97	2		13.1	-0.079	-1.582	ng/L	
Hg2600-3	BC	SAM	F710207-BSD1	20	10/6/2017 12:25:11	77149-1.RAW	12:25:11 PM	866.33	2		820.9	4.902	98.038	ng/L	
Hg2600-3	BC	SAM	F710207-BS2	400	10/6/2017 12:29:19	77150-1.RAW	12:29:19 PM	1000.89	2		860.2	5.145	102.892	ng/L	
Hg2600-3	BC	SAM	1709617-01	400	10/6/2017 12:34:43	77151-1.RAW	12:34:43 PM	77.88	2		994.8	6.126	2450.448	ng/L	
Hg2600-3	BC	SAM	1709615-01	400	10/6/2017 12:38:51	77152-1.RAW	12:38:51 PM	1292.39	2		71.8	0.435	173.857	ng/L	
Hg2600-3	BC	SAM	1709615-02	400	10/6/2017 12:43:00	77153-1.RAW	12:43:00 PM	633.69	2		1286.3	7.924	3169.428	ng/L	
Hg2600-3	BC	SAM	1709617-04	50	10/6/2017 12:49:10	77154-1.RAW	12:49:10 PM	324.34	2		627.6	3.862	1544.754	ng/L	
Hg2600-3	BC	SAM	1709617-05	50	10/6/2017 12:53:18	77155-1.RAW	12:53:18 PM	344.11	2		318.2	1.898	94.922	ng/L	
Hg2600-3	BC	SAM	1709617-06	50	10/6/2017 12:57:27	77156-1.RAW	12:57:27 PM	307.64	2		338.0	2.020	101.018	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	10/6/2017 13:01:35	77157-1.RAW	1:01:35 PM	806.46			301.5	1.795	89.774	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	10/6/2017 13:05:43	77158-1.RAW	1:05:43 PM	25.03			800.4	4.935	4.935	ng/L	
Hg2600-3	BC	SAM	WS		10/6/2017 13:12:54	77159-1.RAW	1:12:54 PM	40.90	x		18.9	0.117	0.117	ng/L	
Hg2600-3	BC	SAM	1709617-07	20	10/6/2017 13:17:02	77160-1.RAW	1:17:02 PM	872.22	2		34.8	0.215	0.000	ng/L	
Hg2600-3	BC	SAM	1709617-08	20	10/6/2017 13:21:11	77161-1.RAW	1:21:11 PM	839.28	2		866.1	5.181	103.619	ng/L	
Hg2600-3	BC	SAM	1709617-09	20	10/6/2017 13:25:19	77162-1.RAW	1:25:19 PM	703.79	2		833.2	4.978	99.556	ng/L	
Hg2600-3	BC	SAM	1709617-10	20	10/6/2017 13:29:28	77163-1.RAW	1:29:28 PM	810.58	2		697.7	4.142	82.847	ng/L	
Hg2600-3	BC	SAM	1709617-11	20	10/6/2017 13:33:36	77164-1.RAW	1:33:36 PM	741.52	2		804.5	4.801	96.017	ng/L	
Hg2600-3	BC	SAM	1709617-12	20	10/6/2017 13:37:44	77165-1.RAW	1:37:44 PM	550.91	2		804.5	4.801	96.017	ng/L	
Hg2600-3	BC	SAM	1709617-13	20	10/6/2017 13:41:53	77166-1.RAW	1:41:53 PM	634.53	2		735.4	4.375	87.500	ng/L	
Hg2600-3	BC	SAM	1709617-14	20	10/6/2017 13:46:01	77167-1.RAW	1:46:01 PM	653.01	2		544.8	3.200	63.993	ng/L	
Hg2600-3	BC	SAM	1709617-15	20	10/6/2017 13:50:10	77168-1.RAW	1:50:10 PM	590.23	2		628.4	3.715	74.306	ng/L	
Hg2600-3	BC	SAM	1709617-16	20	10/6/2017 13:54:18	77169-1.RAW	1:54:18 PM	725.07	2		646.9	3.829	76.585	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	10/6/2017 13:58:27	77170-1.RAW	1:58:27 PM	804.51			584.1	3.442	68.842	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	10/6/2017 14:02:35	77171-1.RAW	2:02:35 PM	34.64			719.0	4.274	85.472	ng/L	
Hg2600-3	BC	SAM	1709617-17	20	10/6/2017 14:06:43	77172-1.RAW	2:06:43 PM	679.81	2		798.4	4.923	4.923	ng/L	
Hg2600-3	BC	SAM	1709617-18	20	10/6/2017 14:10:52	77173-1.RAW	2:10:52 PM	852.32	2		28.5	0.176	0.176	ng/L	
Hg2600-3	BC	SAM	1709617-19	20	10/6/2017 14:15:00	77174-1.RAW	2:15:00 PM	756.98	2		673.7	3.994	79.890	ng/L	
Hg2600-3	BC	SAM	1709617-20	20	10/6/2017 14:19:09	77175-1.RAW	2:19:09 PM	493.22	2		846.2	5.058	101.165	ng/L	
Hg2600-3	BC	SAM	1709617-01RE1	20	10/6/2017 14:23:17	77176-1.RAW	2:23:17 PM	598.25	2		750.9	4.470	89.407	ng/L	
Hg2600-3	BC	SAM	F710207-DUP1	400	10/6/2017 14:27:25	77177-1.RAW	2:27:25 PM	575.82	2		487.1	2.844	56.879	ng/L	
Hg2600-3	BC	SAM	F710207-MS1	400	10/6/2017 14:31:34	77178-1.RAW	2:31:34 PM	2541.89	2		592.2	3.492	69.832	ng/L	
Hg2600-3	BC	SAM	F710207-MSD1	400	10/6/2017 14:35:42	77179-1.RAW	2:35:42 PM	2511.24	2		569.7	3.505	1402.019	ng/L	
Hg2600-3	BC	SAM	F710207-MS2	400	10/6/2017 14:39:51	77180-1.RAW	2:39:51 PM	1975.57	2		2535.8	15.628	6251.302	ng/L	
Hg2600-3	BC	SAM	F710207-MSD2	400	10/6/2017 14:44:00	77181-1.RAW	2:44:00 PM	1997.93	2		2505.1	15.439	6175.704	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	10/6/2017 14:48:08	77182-1.RAW	2:48:08 PM	838.18			1969.5	12.136	4854.482	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	10/6/2017 14:52:17	77183-1.RAW	2:52:17 PM	47.01			1991.8	12.274	4909.632	ng/L	
Hg2600-3	BC	BLK	F710232-BLK1	50	10/6/2017 14:56:25	77184-1.RAW	2:56:25 PM	28.08	3		832.1	5.131	5.131	ng/L	
Hg2600-3	BC	BLK	F710232-BLK2	50	10/6/2017 15:03:40	77185-2.RAW	3:03:40 PM	39.19	3		40.9	0.252	0.252	ng/L	
Hg2600-3	BC	SAM	F710232-BS1	400	10/6/2017 15:07:49	77186-1.RAW	3:07:49 PM	1207.48	3		22.0	0.136	6.778	ng/L	
Hg2600-3	BC	SAM	F710232-BSD1	400	10/6/2017 15:11:57	77187-1.RAW	3:11:57 PM	1149.02	3		33.1	0.204	10.203	ng/L	
Hg2600-3	BC	SAM	1710167-01	50	10/6/2017 15:16:05	77188-1.RAW	3:16:05 PM	32.08	3		1201.4	7.387	2954.704	ng/L	
Hg2600-3	BC	SAM	1710170-01	50	10/6/2017 15:20:14	77189-1.RAW	3:20:14 PM	23.78	3		1142.9	7.026	2810.513	ng/L	
Hg2600-3	BC	SAM	F710232-DUP1	50	10/6/2017 15:24:22	77190-1.RAW	3:24:22 PM	16.89	3		26.0	-0.010	-0.479	ng/L	
Hg2600-3	BC	SAM	F710232-MS1	400	10/6/2017 15:28:31	77191-1.RAW	3:28:31 PM	1151.01	3		17.7	-0.061	-3.038	ng/L	
Hg2600-3	BC	SAM	F710232-MSD1	400	10/6/2017 15:32:39	77192-1.RAW	3:32:39 PM	1152.47	3		10.8	-0.103	-5.163	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	10/6/2017 15:36:48	77193-1.RAW	3:36:48 PM	831.55			1144.9	7.039	2815.422	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8	1	10/6/2017 15:40:56	77194-1.RAW	3:40:56 PM	26.82			1146.4	7.048	2819.023	ng/L	
											825.5	5.090	5.090	ng/L	
											20.7	0.128	0.128	ng/L	

TotalMercury EPA1631
 Operatr BC
 BlankSut 6.0974
 CalibEqn: Conc = (Area-6.097
 Run Date: 10/6/2017
 Blank SD: 0.976146873
 Worksh THg2600
 CalibFact 162.17
 Status: QC Warnings:5/QC E
 Run Time: 14:59:31
 Blank RSD%: 16.00911015
 Method ##### R: 0.9999
 R²: 0.9998
 CF SD: 8.086109444
 CF RSD%: 4.986065233

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ef)	Flags	RunCount	Comment
Clean				0.00	9.03					77084-1.RAW	7:51:07	1464.40	Clean	OK	1	
CLEAN										77085-1.RAW	7:53:59	0.00	Clean	NP	1	
WS				6.10	0.00					77086-1.RAW	7:58:07	6.74	Sample	OK	1	
WS				6.10	0.00					77087-1.RAW	8:02:15	3.60	Sample	OK	1	
WS				6.10	0.01					77088-1.RAW	8:06:24	8.48	Sample	OK	1	
SEQ-IBL1	A1		1	0.00	0.03					77089-1.RAW	8:10:32	5.02	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.04					77090-1.RAW	8:14:41	6.92	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.04					77091-1.RAW	8:18:49	6.35	Sample	OK	1	
SEQ-CAL1	A4		1	6.10	0.46			92.32		77092-1.RAW	8:22:57	80.95	Sample	OK	1	
SEQ-CAL2	A5		1	6.10	1.00			100.42		77093-1.RAW	8:27:06	168.95	Sample	OK	1	
SEQ-CAL3	A6		1	6.10	4.95			99.00		77094-1.RAW	8:31:14	808.83	Sample	OK	1	
SEQ-CAL4	A7		1	6.10	20.51			102.56		77095-1.RAW	8:35:23	3332.46	Sample	OK	1	
SEQ-CAL5	A8		1	6.10	42.29			105.72		77096-1.RAW	8:39:31	6863.92	Sample	OK	1	
SEQ-ICV1	A9		1	6.10	5.47			109.38		77097-1.RAW	8:43:39	893.02	Sample	OK	1	
WS				6.10	0.67					77099-1.RAW	8:54:01	114.53	Sample	OK	1	STALLED
F710193-BLK4	A10		100	6.10	11.78					77098-2.RAW	8:58:10	25.20	Sample	OK	1	
F710193-BLK5	A11		100	6.10	9.06					77100-1.RAW	9:02:18	20.80	Sample	OK	1	
F710193-BLK6	A12		100	6.10	7.35					77101-1.RAW	9:06:27	18.02	Sample	OK	1	
1709806-31RE1	B1		100	6.10	23.93					77102-1.RAW	9:10:35	44.90	Sample	OK	1	
1709806-31BRE1	B2		100	6.10	103.47					77103-1.RAW	9:14:43	173.91	Sample	OK	1	
F710229-BLK1	B3		1	6.10	0.02					77104-1.RAW	9:18:52	9.36	Sample	OK	1	
F710229-BLK2	B4		1	6.10	0.01					77105-1.RAW	9:23:00	8.43	Sample	OK	1	
F710229-BLK3	B5		1	6.10	0.01					77106-1.RAW	9:27:09	8.22	Sample	OK	1	
F710229-BS1	B6		1	6.10	16.12					77107-1.RAW	9:31:17	2620.31	Sample	OK	1	
F710229-BSD1	B7		1	6.10	16.56					77108-1.RAW	9:35:26	2691.96	Sample	OK	1	
SEQ-CCV1	B8		1	6.10	5.37			107.46		77109-1.RAW	9:39:34	877.43	Sample	OK	1	
SEQ-CCB1	B9		1	6.10	0.20			0.00		77110-1.RAW	9:43:42	38.44	Sample	OK	1	
1710086-01	B10		1	6.10	1.28					77111-1.RAW	9:47:51	212.91	Sample	OK	1	
1710086-02	B11		1	6.10	3.64					77112-1.RAW	9:51:59	596.28	Sample	OK	1	
1710086-03	B12		1	6.10	0.40					77113-1.RAW	9:56:08	70.36	Sample	OK	1	
1710087-01	C1		50	6.10	21.24					77114-1.RAW	10:00:16	74.98	Sample	OK	1	
1710087-02	C2		50	6.10	19.87					77115-1.RAW	10:04:24	70.54	Sample	OK	1	
1710087-03	C3		1	6.10	0.50					77116-1.RAW	10:08:33	86.99	Sample	OK	1	
1710087-04	C4		1	6.10	21.80					77117-1.RAW	10:12:41	3541.36	Sample	FB	1	
1710087-05	C5		1	6.10	27.81					77118-1.RAW	10:16:50	4516.57	Sample	FB	1	
1710087-06	C6		1	6.10	0.49					77119-1.RAW	10:20:58	85.60	Sample	OK	1	
1710087-07	C7		1	6.10	19.77					77120-1.RAW	10:25:07	3212.21	Sample	OK	1	
SEQ-CCV2	C8		1	6.10	5.38			107.69		77121-1.RAW	10:29:15	879.34	Sample	OK	1	
SEQ-CCB2	C9		1	6.10	0.21			0.00		77122-1.RAW	10:33:23	39.72	Sample	OK	1	
1710088-01	C10		1	6.10	2.63					77123-1.RAW	10:37:32	432.55	Sample	OK	1	
1710088-02	C11		1	6.10	1.69					77124-1.RAW	10:41:40	280.58	Sample	OK	1	
1710088-03	C12		1	6.10	1.46					77125-1.RAW	10:45:49	243.15	Sample	OK	1	
1710088-04	D1		1	6.10	1.46					77126-1.RAW	10:49:57	243.15	Sample	OK	1	
1710088-05	D2		1	6.10	1.51					77127-1.RAW	10:54:05	251.26	Sample	OK	1	
1710088-06	D3		1	6.10	1.16					77128-1.RAW	10:58:14	194.67	Sample	OK	1	
1710088-07	D4		1	6.10	0.23					77129-1.RAW	11:02:22	43.05	Sample	OK	1	

1710087-08	D5	1	6.10	17.69		77130-1.RAW	11:06:31	2874.73	Sample	OK	1
1710087-09	D6	1	6.10	0.35		77131-1.RAW	11:10:39	62.29	Sample	OK	1
1710087-01RE1	D7	5	6.10	11.83		77132-1.RAW	11:14:48	389.76	Sample	OK	1
SEQ-CCV3	D8	1	6.10	5.14	102.76	77133-1.RAW	11:18:56	839.35	Sample	OK	1
SEQ-CCB3	D9	1	6.10	0.16	0.00	77134-1.RAW	11:23:04	31.79	Sample	OK	1
1710087-02RE1	D10	5	6.10	11.63		77135-1.RAW	11:27:13	383.40	Sample	OK	1
F710229-DUP1	D11	1	6.10	1.33		77136-1.RAW	11:31:21	221.35	Sample	OK	1
F710229-MS1	D12	1	6.10	6.36	273.26	77137-1.RAW	11:35:30	1037.46	Sample	OK	1
F710229-MSD1	A1	1	6.10	6.50		77138-1.RAW	11:39:38	1060.53	Sample	OK	1
F710229-MS2	A2	1	6.10	6.95	81.74	77139-1.RAW	11:43:47	1133.18	Sample	OK	1
F710229-MSD2	A3	1	6.10	7.11		77140-1.RAW	11:47:55	1159.40	Sample	OK	1
F710207-BLK1	A4	20	6.10	4.16		77141-1.RAW	11:52:03	39.81	Sample	OK	1
F710207-BLK2	A5	20	6.10	3.35		77142-1.RAW	11:56:12	33.25	Sample	OK	1
F710207-BLK3	A6	20	6.10	2.08		77143-1.RAW	12:00:20	22.96	Sample	OK	1
F710207-BLK4	A7	20	6.10	1.83		77144-1.RAW	12:04:29	20.94	Sample	OK	1
SEQ-CCV4	A8	1	6.10	4.84	96.82	77145-1.RAW	12:08:37	791.21	Sample	OK	1
SEQ-CCB4	A9	1	6.10	0.09	0.00	77146-1.RAW	12:12:45	20.81	Sample	OK	1
F710207-BLK5	A10	20	6.10	1.61		77147-1.RAW	12:16:54	19.18	Sample	OK	1
F710207-BS1	A11	20	6.10	101.23		77148-1.RAW	12:21:02	826.97	Sample	OK	1
F710207-BSD1	A12	20	6.10	106.09		77149-1.RAW	12:25:11	866.33	Sample	OK	1
F710207-BS2	B1	400	6.10	2453.64		77150-1.RAW	12:29:19	1000.89	Sample	OK	1
1709617-01	B2	400	6.10	177.05		77151-1.RAW	12:34:43	77.88	Sample	OK	1
1709615-01	B3	400	6.10	3172.63		77152-1.RAW	12:38:51	1292.39	Sample	OK	1
1709615-02	B4	400	6.10	1547.94		77153-1.RAW	12:43:00	633.69	Sample	OK	1
1709617-04	B5	50	6.10	98.12		77154-1.RAW	12:49:10	324.34	Sample	OK	1
1709617-05	B6	50	6.10	104.21		77155-1.RAW	12:53:18	344.11	Sample	OK	1
1709617-06	B7	50	6.10	92.97		77156-1.RAW	12:57:27	307.64	Sample	OK	1
SEQ-CCV5	B8	1	6.10	4.94	98.70	77157-1.RAW	13:01:35	806.46	Sample	OK	1
SEQ-CCB5	B9	1	6.10	0.12	0.00	77158-1.RAW	13:05:43	25.03	Sample	OK	1
WS			6.10	0.21		77159-1.RAW	13:12:54	40.90	Sample	OK	1
1709617-07	B10	20	6.10	106.81		77160-1.RAW	13:17:02	872.22	Sample	OK	1
1709617-08	B11	20	6.10	102.75		77161-1.RAW	13:21:11	839.28	Sample	OK	1
1709617-09	B12	20	6.10	86.04		77162-1.RAW	13:25:19	703.79	Sample	OK	1
1709617-10	C1	20	6.10	99.21		77163-1.RAW	13:29:28	810.58	Sample	OK	1
1709617-11	C2	20	6.10	90.70		77164-1.RAW	13:33:36	741.52	Sample	OK	1
1709617-12	C3	20	6.10	67.19		77165-1.RAW	13:37:44	550.91	Sample	OK	1
1709617-13	C4	20	6.10	77.50		77166-1.RAW	13:41:53	634.53	Sample	OK	1
1709617-14	C5	20	6.10	79.78		77167-1.RAW	13:46:01	653.01	Sample	OK	1
1709617-15	C6	20	6.10	72.04		77168-1.RAW	13:50:10	590.23	Sample	OK	1
1709617-16	C7	20	6.10	88.67		77169-1.RAW	13:54:18	725.07	Sample	OK	1
SEQ-CCV6	C8	1	6.10	4.92	98.46	77170-1.RAW	13:58:27	804.51	Sample	OK	1
SEQ-CCB6	C9	1	6.10	0.18	0.00	77171-1.RAW	14:02:35	34.64	Sample	OK	1
1709617-17	C10	20	6.10	83.08		77172-1.RAW	14:06:43	679.81	Sample	OK	1
1709617-18	C11	20	6.10	104.36		77173-1.RAW	14:10:52	852.32	Sample	OK	1
1709617-19	C12	20	6.10	92.60		77174-1.RAW	14:15:00	756.98	Sample	OK	1
1709617-20	D1	20	6.10	60.07		77175-1.RAW	14:19:09	493.22	Sample	OK	1
1709617-01RE1	D2	20	6.10	73.03		77176-1.RAW	14:23:17	598.25	Sample	OK	1
F710207-DUP1	D3	400	6.10	1405.20		77177-1.RAW	14:27:25	575.82	Sample	OK	1
F710207-MS1	D4	400	6.10	6254.49	444.78	77178-1.RAW	14:31:34	2541.89	Sample	OK	1
F710207-MSD1	D5	400	6.10	6178.89		77179-1.RAW	14:35:42	2511.24	Sample	OK	1
F710207-MS2	D6	400	6.10	4857.66	78.59	77180-1.RAW	14:39:51	1975.57	Sample	OK	1

F710207-MSD2	D7	400	6.10	4912.83		77181-1.RAW	14:44:00	1997.93	Sample	OK	1
SEQ-CCV7	D8	1	6.10	5.13	102.62	77182-1.RAW	14:48:08	838.18	Sample	OK	1
SEQ-CCB7	D9	1	6.10	0.25	0.00	77183-1.RAW	14:52:17	47.01	Sample	OK	1
F710232-BLK1	D10	50	6.10	6.78		77184-1.RAW	14:56:25	28.08	Sample	OK	1
F710232-BLK2	D11	50	6.10	10.20		77185-2.RAW	15:03:40	39.19	Sample	OK	1
F710232-BS1	D12	400	6.10	2963.19		77186-1.RAW	15:07:49	1207.48	Sample	OK	1
F710232-BSD1	A1	400	6.10	2818.99		77187-1.RAW	15:11:57	1149.02	Sample	OK	1
1710167-01	A2	50	6.10	8.01		77188-1.RAW	15:16:05	32.08	Sample	OK	1
1710170-01	A3	50	6.10	5.45		77189-1.RAW	15:20:14	23.78	Sample	OK	1
F710232-DUP1	A4	50	6.10	3.33		77190-1.RAW	15:24:22	16.89	Sample	OK	1
F710232-MS1	A5	400	6.10	2823.91	282390.93	77191-1.RAW	15:28:31	1151.01	Sample	OK	1
F710232-MSD1	A6	400	6.10	2827.50		77192-1.RAW	15:32:39	1152.47	Sample	OK	1
SEQ-CCV8	A7	1	6.10	5.09	101.80	77193-1.RAW	15:36:48	831.55	Sample	OK	1
SEQ-CCB8	A8	1	6.10	0.13	0.00	77194-1.RAW	15:40:56	26.82	Sample	OK	1

Failing Data Report - 7J09011

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Becky 10/9/17
Analyst Reviewed By Date

Dan Meyer 10/10/17
Peer Reviewed By Date

Failing Data Report - 7J09012

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Beck 10/9/17
Analyst Reviewed By Date

Don Matem 10/10/17
Peer Reviewed By Date

ANALYSIS SEQUENCE

7J09011

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J09011-IBL1	QC	1			
7J09011-IBL2	QC	2			
7J09011-IBL3	QC	3			
7J09011-CAL1	QC	4	1704505		
7J09011-CAL2	QC	5	1704506		
7J09011-CAL3	QC	6	1704507		
7J09011-CAL4	QC	7	1704508		
7J09011-CAL5	QC	8	1704509		
7J09011-ICV1	QC	9	1705628		
7J09011-CCV1	QC	10	1705628		
7J09011-CCB1	QC	11			
7J09011-CCV2	QC	12	1705628		
7J09011-CCB2	QC	13			
7J09011-CCV3	QC	14	1705628		
7J09011-CCB3	QC	15			
F710207-BLK1	QC	16			
F710207-BLK2	QC	17			
F710207-BLK3	QC	18			
F710207-BLK4	QC	19			
7J09011-CCV4	QC	20	1705628		
7J09011-CCB4	QC	21			
F710207-BLK5	QC	22			
F710207-BS1	QC	23			
F710207-BSD1	QC	24			
F710207-BS2	QC	25			
1709617-01	Hg-CVAFS-T-7030	26			
1709615-01	Hg-CVAFS-T-7030	27			
1709615-02	Hg-CVAFS-T-7030	28			
1709617-04	Hg-CVAFS-T-7030	29			
1709617-05	Hg-CVAFS-T-7030	30			
1709617-06	Hg-CVAFS-T-7030	31			
7J09011-CCV5	QC	32	1705628		
7J09011-CCB5	QC	33			
1709617-07	Hg-CVAFS-T-7030	34			
1709617-08	Hg-CVAFS-T-7030	35			

Due Date: 10/20/2017

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Page 1 of 2

ANALYSIS SEQUENCE

7J09011

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709617-09	Hg-CVAFS-T-7030	36			
1709617-10	Hg-CVAFS-T-7030	37			
1709617-11	Hg-CVAFS-T-7030	38			
1709617-12	Hg-CVAFS-T-7030	39			
1709617-13	Hg-CVAFS-T-7030	40			
1709617-14	Hg-CVAFS-T-7030	41			
1709617-15	Hg-CVAFS-T-7030	42			
1709617-16	Hg-CVAFS-T-7030	43			
7J09011-CCV6	QC	44	1705628		
7J09011-CCB6	QC	45			
1709617-17	Hg-CVAFS-T-7030	46			
1709617-18	Hg-CVAFS-T-7030	47			
1709617-19	Hg-CVAFS-T-7030	48			
1709617-20	Hg-CVAFS-T-7030	49			
1709617-01RE1	Hg-CVAFS-T-7030	50			Added 10/9/2017 by BC
F710207-DUP1	QC	51			
F710207-MS1	QC	52			
F710207-MSD1	QC	53			
F710207-MS2	QC	54			
F710207-MSD2	QC	55			
7J09011-CCV7	QC	56	1705628		
7J09011-CCB7	QC	57			

Becis 10/9/17
 Samples Loaded By Date

Becis 10/9/17
 Data Processed By Date

10/2/17
10/6/17

ANALYSIS SEQUENCE

7J09012

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J09012-IBL1	QC	1			
7J09012-IBL2	QC	2			
7J09012-IBL3	QC	3			
7J09012-CAL1	QC	4	1704505		
7J09012-CAL2	QC	5	1704506		
7J09012-CAL3	QC	6	1704507		
7J09012-CAL4	QC	7	1704508		
7J09012-CAL5	QC	8	1704509		
7J09012-ICV1	QC	9	1705628		
F710193-BLK4	QC	10			
F710193-BLK5	QC	11			
F710193-BLK6	QC	12			
1709806-31RE1	Hg_FSTM_TRAP_A	13			Added 10/6/2017 by PL
7J09012-CCV1	QC	14	1705628		
7J09012-CCB1	QC	15			

Becis 10/9/17
 Samples Loaded By Date

Becis 10/9/17
 Data Processed By Date

10/6/17
 10/6/17

ANALYSIS SEQUENCE

7J09013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J09013-IBL1	QC	1			
7J09013-IBL2	QC	2			
7J09013-IBL3	QC	3			
7J09013-CAL1	QC	4	1704505		
7J09013-CAL2	QC	5	1704506		
7J09013-CAL3	QC	6	1704507		
7J09013-CAL4	QC	7	1704508		
7J09013-CAL5	QC	8	1704509		
7J09013-ICV1	QC	9	1705628		
7J09013-CCV1	QC	10	1705628		
7J09013-CCB1	QC	11			
7J09013-CCV2	QC	12	1705628		
7J09013-CCB2	QC	13			
7J09013-CCV3	QC	14	1705628		
7J09013-CCB3	QC	15			
7J09013-CCV4	QC	16	1705628		
7J09013-CCB4	QC	17			
7J09013-CCV5	QC	18	1705628		
7J09013-CCB5	QC	19			
7J09013-CCV6	QC	20	1705628		
7J09013-CCB6	QC	21			
7J09013-CCV7	QC	22	1705628		
7J09013-CCB7	QC	23			
F710232-BLK1	QC	24			
F710232-BLK2	QC	25			
F710232-BS1	QC	26			
F710232-BSD1	QC	27			
1710167-01	Hg-CVAFS-S-Bomb	28			QG00L-1 - Prep 2.0-2.15 grams
1710170-01	Hg-CVAFS-S-Bomb	29			QG00L-1 - Prep 2.0-2.15 grams
F710232-DUP1	QC	30			
F710232-MS1	QC	31			
F710232-MSD1	QC	32			
7J09013-CCV8	QC	33	1705628		
7J09013-CCB8	QC	34			

ANALYSIS SEQUENCE

7J09013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/6/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Becis 10/9/17
Samples Loaded By Date

Becis 10/9/17
Data Processed By Date

109801
10/9/17

PREPARATION BENCH SHEET

F710193

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710193-BLK1	Blank	1	40					
F710193-BLK2	Blank	1	40					
F710193-BLK3	Blank	1	40					
F710193-BLK4	Blank	1	20					
F710193-BLK5	Blank	1	20					
F710193-BLK6	Blank	1	20					
F710193-BS1	LCS	1	40	1705554	200			
F710193-BSD1	LCS Dup	1	40	1705554	200			
F710193-DUP1	Duplicate [1709807-01]	1	40					
F710193-MS1	Matrix Spike [1709807-01]	0.0125	0.5	1704483	125			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F710193-MSD1	Matrix Spike Dup [1709807-01]	0.0125	0.5	1704483	125			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704483	THg 1ng/mL Calibration Standard	24-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710193

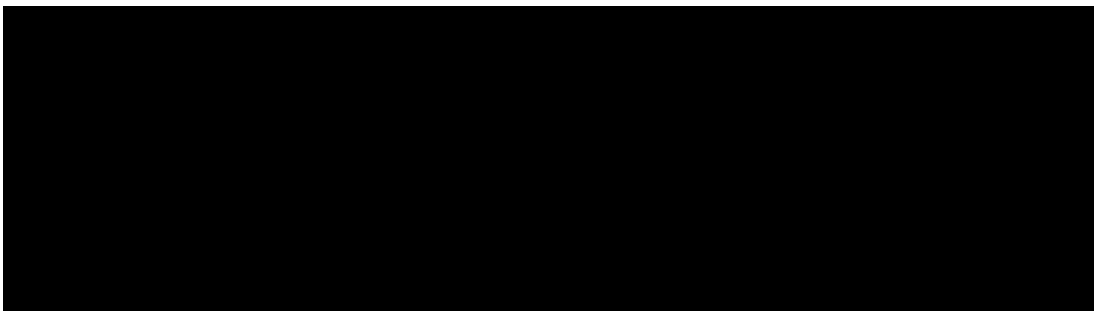
Euofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709806-31	HGS1717-7-13	1	40	-	-	-		
1709806-31RE1	HGS1717-7-13	1	40	-	-	-	Added 10/6/2017 by PL	RR for confirmation. PL 10/6/17
1709806-32	HGS1717-7-14	1	40	-	-	-		
1709806-33	HGS1717-7-15	1	40	-	-	-		
1709806-34	HGS1717-7-16	1	40	-	-	-		
1709806-35	HGS1717-7-17	1	40	-	-	-		
1709806-36	HGS1717-7-18	1	40	-	-	-		
1709807-01	HGS1716-6-6	1	40	-	-	-		
1709807-02	HGS1716-7-6	1	40	-	-	-		
1709808-01	HGS1717-BM-6-7	1	40	-	-	-		



PREPARATION BENCH SHEET

F710232

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710232-BLK1	Blank	0.5	50					
F710232-BLK2	Blank	0.5	50					
F710232-BS1	LCS	0.5	50	1705879	50			
F710232-BSD1	LCS Dup	0.5	50	1705879	50			
F710232-DUP1	Duplicate [1710167-01]	2.0904	50					
F710232-MS1	Matrix Spike [1710167-01]	2.0929	50	1705879	50			
F710232-MSD1	Matrix Spike Dup [1710167-01]	2.0103	50	1705879	50			

<u>Standard ID(s):</u> 1705879	<u>Description:</u> EFGS-PREPSPIKE1/2, plus Hg	<u>Expiration:</u> 02-Jan-18 00:00	<u>Reagent ID(s):</u> 1703182 1705610 1705611 1705679 1705779	<u>Description:</u> 25% Hydroxylamine-HCl working solution THg Washstation (0.5% BrCl) THg Dilute 1% BrCl Fisher Nitric Acid, Tracemetal Grade 3% SnCl2 THg reductant	<u>Expiration:</u> 24-Nov-17 00:00 22-Jan-18 00:00 15-Mar-19 00:00 13-Mar-18 00:00
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PREPARATION BENCH SHEET

F710232

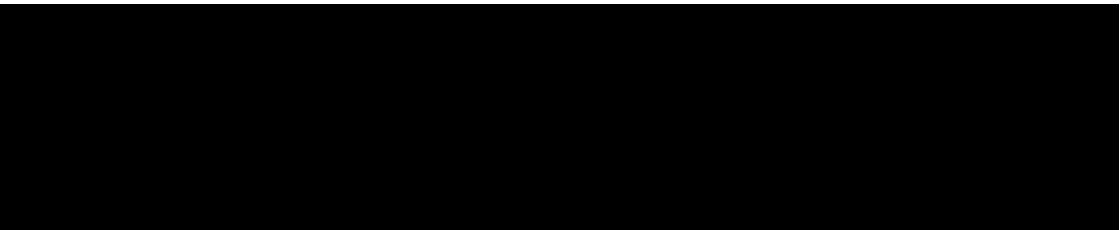
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710167-01	740-2017-10040027 EUUSBO2-00094666	2.0897	50	-	See COC	-	MSM Powder, Lot #1710017 QG00L-1	
1710170-01	740-2017-10040028 EUUSBO2-00094667	2.0807	50	-	See COC	-	MSM Powder, Lot #1710117 QG00L-1	



PREPARATION BENCH SHEET

F710207

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710207-BLK1	Blank	0.25	20					
F710207-BLK2	Blank	0.25	20					
F710207-BLK3	Blank	0.25	20					
F710207-BLK4	Blank	0.26	20					Pre Blank 1709617
F710207-BLK5	Blank	0.282	20					PostBlank 1709617
F710207-BS1	LCS	0.25	20	1704421	20			
F710207-BS2	DORM4	0.1295	20	1705412	129.5			
F710207-BSD1	LCS Dup	0.25	20	1704421	20			
F710207-DUP1	Duplicate [1709615-02]	0.254	20					
F710207-MS1	Matrix Spike [1709615-02]	0.273	20	1705554	100			
F710207-MS2	Matrix Spike [1709617-01RE1]	0.281	20	1705554	100			
F710207-MSD1	Matrix Spike Dup [1709615-02]	0.26	20	1705554	100			
F710207-MSD2	Matrix Spike Dup [1709617-01RE1]	0.288	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00

PREPARATION BENCH SHEET

F710207

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709615-01	ES-13_17LT012_091317_TOM_01_WB	0.28	20	-	-	-	Sample contains enough volume for QC	
1709615-02	ES-13_17ET718_091817_TOM_02_WB	0.271	20	QC	-	-	MS/MSD	
1709617-01	FRB-01_17SN001_091217_MUM_01_WB	0.27	20	QC	-	-	MS/MSD	
1709617-01RE1	FRB-01_17SN001_091217_MUM_01_WB	0.27	20	QC	-	-	MS/MSD Added 10/9/2017 by BC	Added 10/9/2017 by BC
1709617-04	FRB-01_17SN001_091217_MUM_04_WB	0.267	20	-	-	-		
1709617-05	FRB-01_17SN001_091217_MUM_05_WB	0.267	20	-	-	-		
1709617-06	FRB-01_17SN001_091217_MUM_06_WB	0.278	20	-	-	-		
1709617-07	FRB-01_17SN001_091217_MUM_07_WB	0.269	20	-	-	-		
1709617-08	FRB-01_17SN001_091217_MUM_08_WB	0.262	20	-	-	-		
1709617-09	FRB-01_17SN001_091217_MUM_09_WB	0.269	20	-	-	-		
1709617-10	FRB-01_17SN001_091217_MUM_10_WB	0.285	20	-	-	-		
1709617-11	FRB-01_17SN001_091217_MUM_11_WB	0.261	20	-	-	-		
1709617-12	FRB-01_17SN001_091217_MUM_12_WB	0.266	20	-	-	-		
1709617-13	FRB-01_17SN001_091217_MUM_13_WB	0.263	20	-	-	-		
1709617-14	FRB-01_17SN001_091217_MUM_14_WB	0.251	20	-	-	-		
1709617-15	FRB-01_17SN001_091217_MUM_15_WB	0.271	20	-	-	-		
1709617-16	FRB-01_17SN001_091217_MUM_16_WB	0.259	20	-	-	-		
1709617-17	FRB-01_17SN001_091217_MUM_17_WB	0.273	20	-	-	-		
1709617-18	FRB-01_17SN001_091217_MUM_18_WB	0.258	20	-	-	-		

PREPARATION BENCH SHEET

F710207

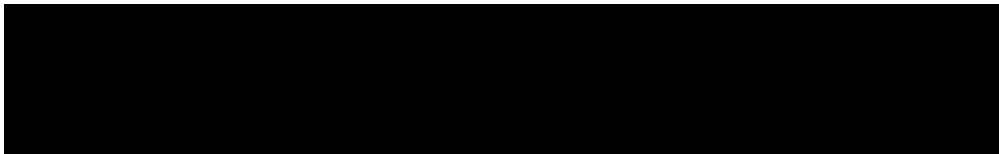
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

1709617-19	FRB-01_17SN001_091217_MUM_19_WB	0.274	20	-	-	-		
1709617-20	FRB-01_17SN001_091217_MUM_20_WB	0.256	20	-	-	-		



Hg RR

PREPARATION BENCH SHEET

BL 10/6/17
2600-3

F710193

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710193-BLK1	Blank	1	40					
F710193-BLK2	Blank	1	40					
F710193-BLK3	Blank	1	40					
F710193-BLK4	Blank	1	20					100X
F710193-BLK5	Blank	1	20					100X
F710193-BLK6	Blank	1	20					100X
F710193-BS1	LCS	1	40	1705554	200			
F710193-BSD1	LCS Dup	1	40	1705554	200			
F710193-DUP1	Duplicate [1709807-01]	1	40					
F710193-MS1	Matrix Spike [1709807-01]	0.0125	0.5	1704483	125			[Spk] 1 Trap->40mL; 20mL->20mL; Spiked 0.5mL
F710193-MSD1	Matrix Spike Dup [1709807-01]	0.0125	0.5	1704483	125			[Spk] 1 Trap->40mL; 20mL->20mL; Spiked 0.5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704483	THg 1ng/mL Calibration Standard	24-Oct-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00

100X = 300µL

PREPARATION BENCH SHEET

BC 10/6/17
2000-3

F710193

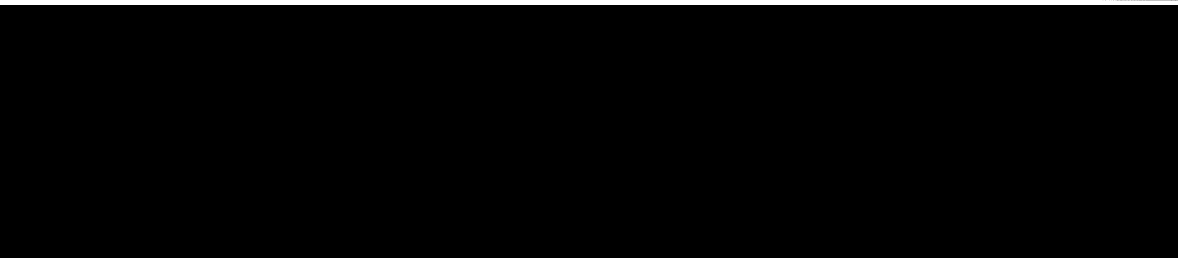
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B	Analysis Comments
1709806-31	HGS1717-7-13	1	40	-	-	-			
1709806-31RE1	(A + B bed) HGS1717-7-13	1	40	-	-	-	Added 10/5/2017 by PL 100X	100X	RR for confirmation. PL 10/5/17
1709806-32	HGS1717-7-14	1	40	-	-	-			
1709806-33	HGS1717-7-15	1	40	-	-	-			
1709806-34	HGS1717-7-16	1	40	-	-	-			
1709806-35	HGS1717-7-17	1	40	-	-	-			
1709806-36	HGS1717-7-18	1	40	-	-	-			
1709807-01	HGS1716-6-6	1	40	-	-	-			
1709807-02	HGS1716-7-6	1	40	-	-	-			
1709808-01	HGS1717-BM-6-7	1	40	-	-	-			



PREPARATION BENCH SHEET

F710232

Eurofins Frontier Global Sciences, Inc.

BC 10/6/17

2600-3

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710232-BLK1	Blank	0.5	50					50X
F710232-BLK2	Blank	0.5	50					50X
F710232-BS1	LCS	0.5	50	1705879	50			400X
F710232-BSD1	LCS Dup	0.5	50	1705879	50			400X
F710232-DUP1	Duplicate [1710167-01]	2.0904	50					50X
F710232-MS1	Matrix Spike [1710167-01]	2.0929	50	1705879	50			400X
F710232-MSD1	Matrix Spike Dup [1710167-01]	2.0103	50	1705879	50			400X

Standard ID(s): 1705879
Description: EFGS-PREPSPIKE1/2, plus Hg

Expiration: 02-Jan-18 00:00

Reagent ID(s): 1705679
Description: Fisher Nitric Acid, Tracemetal Grade

Expiration: 15-Mar-19 00:00

50X = 1ml
400X = 125µl

1703182
1705610
1705611
1705779

Due Date: 10/9/2017

PREPARATION BENCH SHEET

F710232

Eurofins Frontier Global Sciences, Inc.

BCL 10/6/17

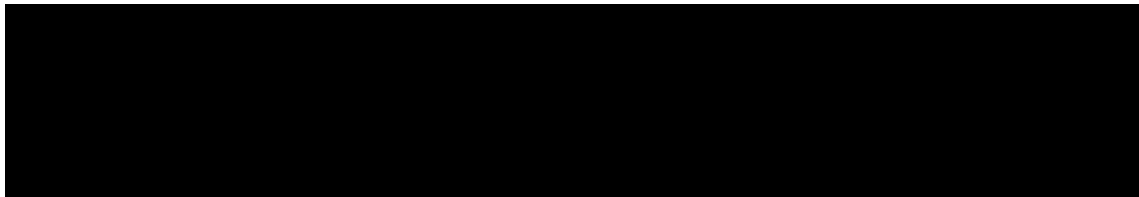
26003

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710167-01	740-2017-10040027 EUUSBO2-00094666	2.0897	50	-	See COC	-	MSM Powder QG00L-1 - Prep 2.0-2.1:	50X
1710170-01	740-2017-10040028 EUUSBO2-00094667	2.0807	50	-	See COC	-	MSM Powder QG00L-1 - Prep 2.0-2.1:	50X



Ceutical Digestions

Batch TM / Hg (circle one): F710230/231/232

Boiling Chip Lot # 225690942

Batch continued on next page? Yes No

1° Tech.: WMP 2° Tech.: JEL Date/Time In: 10/5/2017 1450

Date/Time Out: 10/6/2017 0850 by Timer

Spiked By: WMP Spike Witness (SW): LU10/5/17

Final Vol. (mL)/Initials/Date:
50 WMP 10/6/2017

Balance ID/Cal.? (N): 20 / 10/5/2017

Digestion: Oven ID: OVN-02 Other ID: _____

Vial Type: 50 mL Centrifuge Tube Teflon

Analysis: ICP-MS CV-AFS
 LC-ICP-MS Other: _____

Thermometer ID: 1312060130 Initial: Temp. (°C): 160 / 116.6 / 116.9
target raw corrected

Final: Temp. (°C): 160 / TIMER
target raw corrected

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (<input checked="" type="checkbox"/> g <input type="checkbox"/> mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
1	N359	N391	F710230-BLW	N/A	0.9540	Boiling Chips (BC)	-	
2	N/A	N350	F710230-BLW ^{UCLG-17} F710230-BLW	N/A	0.7979	BC	-	
3	N/A	X045	F710230-B51	N/A	0.6572	BC	-	
4	T405B	X035	F710230-B501	N/A	0.8481	BC	-	
5	N367	X121	1710167-01	A	2.0897	Powder (P)	-	
6	N492	X003	1710167-01 Dup1	A	2.0904	P	-	
7	X176	N354	1710167-01 MS1	A	2.0929	P	-	
8	N/A	X020	1710167-01 MS01	A	2.0103	P	-	
9	X166	T4054	1710150-01	E	0.9738	Food (F)	-	

Initials: W

	Spike Name	SW	Volume (µL)	LIMS ID	Pipette ID	Cal. Date
A	Propylene 1	<input type="checkbox"/>	50	1703595	S12664	10/4/2017
B	Propylene 2	<input type="checkbox"/>	50	1703596		
C	THg	<input type="checkbox"/>	50	1705076		
D		<input type="checkbox"/>				
E		<input type="checkbox"/>				

Preparation Method SOP: EFGS-141		
Reagent	Volume (mL)	LIMS ID
HNO ₃	2.5	1705679

1 Combined Spike ID: A-C = 1703819 ; Batches: F710230/231/232
 2 Combined Spike ID: = ; Batches: WMP 10/5/2017

Batch continued on next page? Yes No

Ceutical Digestions

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount <small>(g □ mL)</small>	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
10	N/A	N470	1710150-01MS2	E	0.6181	F	/	
11	N/A	X044	1710150-01MS2	E	0.5646	F	/	Dry mmpic/06/2017
12	N472	TH020	1710135-01	A	0.5104	F	/	
13	N440	N465	1710136-01	B	2.5116	Liquid(L)	/	
14	N/A	X002	1710149-01	A	0.6815	Syrup(S)	/	
15	X001	X175	1710149-02	A	0.5175	S	/	
16	N/A	N418	1710150-02	E	0.7414	F	/	
17	N/A	N456	1710152-01	A	0.9792	F	/	
18	X105	TH020	1710152-02	A	1.1032	F	/	
19	N/A	X015	1710161-01	A	0.5666	L	/	
20	N/A	X197	1710161-02	A	0.9166	L	/	
21	TH020	N376	1710161-03	A	0.6933	L	/	
22	N/A	N455	1710161-04	A	0.7750	L	/	
23	N/A	N480	1710161-05	A	0.5959	L	/	
24	N/A	N398	1710163-04	A	1.1982	F	/	
25	N/A	X098	1710170-01	A	2.0807	P	/	
26	N/A	N393	1710163-01	A	1.0959	P	/	
27	N/A	N396	1710171-01	A	1.0634	Oil(O)	/	
28	X057	TH047	1710171-02	A	1.0352	O	/	
29	N/A	X141	1710161-06	A	0.5947	F	/	
30								
31								
32								
33								
34								

Initials: *W*

Density by EFGS-019

Required? Yes No

Batch ID: _____

Density = [(D-C)/B]

A: Sample ID / Flask ID	B: Volume (mL)	C: Flask mass (g)	D: Flask + sample (g)	Density (g/mL)
/				
/				
/				
/				

Sample Preparation Review Checklist

Revision: 3
Effective: Dec. 5, 2013

Technician/Date: MMP 10/5/2017
Upload/Date: MMP 10/5/2017

Samples to lab: 1450
Reviewer/Date: BL 10/9/17

Batch #: F710232

EFGS Preparation Method			
<input type="checkbox"/>	FGS-032	Co-APDC	
<input type="checkbox"/>	FGS-052	Oven Digestion (Total Recoverable Metals)	<input type="checkbox"/> ICPMS <input type="checkbox"/> AFS
<input type="checkbox"/>	FGS-058	Nitric Digestion	<input type="checkbox"/> ICPMS <input type="checkbox"/> CVAFS
<input type="checkbox"/>	FGS-084	Modified Aqua Regia (Ag, Sb only)	
<input type="checkbox"/>	FGS-108	Cr+6 Sediments/Tissues	
<input type="checkbox"/>	FGS-109	RP	
<input type="checkbox"/>	FGS-111	HF Bomb Digestion	<input type="checkbox"/> ICPMS <input type="checkbox"/> CVAFS
<input checked="" type="checkbox"/>	FGS-141	Nitric Bomb Digestion	<input type="checkbox"/> ICPMS <input checked="" type="checkbox"/> CVAFS
<input type="checkbox"/>	FGS-145	Oven Digestion (As, Se Speciation)	<input type="checkbox"/> As <input type="checkbox"/> Se
<input type="checkbox"/>	FGS-146	Microwave Digestion (Nutraceuticals)	<input type="checkbox"/>
<input type="checkbox"/>	FGS-146	Microwave Digestion (CPSC-Metal)	
<input type="checkbox"/>	FGS-146	Microwave Digestion (CPSC-Non-Metal/Paint)	
<input type="checkbox"/>	FGS-149	Oven Digestion (Aqueous Nutraceuticals)	
<input type="checkbox"/>	NA	Other:	

Initials	SOP Date	DOC Date
<u>MMP</u>	<u>2/11/2017</u>	<u>12/23/2016</u>

Comments: _____

Conditionally formatted training files located at:
\\us34file\General and Admin\Quality Assurance\Training\Training Master
(Contact QA for any problems regarding these training files.)

Analytes: Hg

1. Is any SOP/DOC expiring within one week of Submission Date?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	Reviewer Initials: <u>BL</u>	Tertiary Review: <u>DM</u>
Data cannot be reported without a current IDOC/CDOC.		If YES, notify supervisor and technician immediately.		
2. Check prep method	<input checked="" type="checkbox"/> YES			
(a) For Ceuticals: Is correct Hg code being used in LIMS?	<input type="checkbox"/> ICPMS <input checked="" type="checkbox"/> CV-AFS <input type="checkbox"/> 70:30 <input type="checkbox"/> N/A			
3. Compare sample ID with benchsheet	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
4. Verify time of submission? (if not met please explain in the comments)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(a) Oven bomb - digestion start time before 14:00?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(b) Microwave - submitted to the lab before 16:00?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A			
5. Check for transcription errors from benchsheet	<input checked="" type="checkbox"/> YES			
(a) Check and compare initial and final volumes	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(b) Check and compare mass	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(c) Has the number of pills been documented (benchsheet and LIMS)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A			
(d) Benchsheet prep date MUST match actual prep date	<input checked="" type="checkbox"/> YES			
6. Samples per Batch? Check QC Requirements	<input type="checkbox"/> ≤ 20 <input checked="" type="checkbox"/> ≤ 10			
(a) PBs per batch?	<input type="checkbox"/> 3 PBs <input checked="" type="checkbox"/> 2 PB <input type="checkbox"/> 1 PB			
(b) BS, BS/BSD or CRM in batch?	<input type="checkbox"/> BS <input checked="" type="checkbox"/> BS/BSD <input type="checkbox"/> CRM			
(c) MS/MSD in batch?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(d) MD in batch?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(e) Client specific: WO #'s: _____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A			
(f) Are there any client specific requests and/or alterations?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A			
Document: _____				
(g) Correct LIMS spike ID included for BS, BS/BSD and/or MS/MSD?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(h) Correct 'source' designated for MD/MS/MSD?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(i) For EFGS-filtered samples, was a filtration blank included?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A			
7. Are the samples appropriately spiked?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(a) Is the spike and amount used appropriate and entered into LIMS?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(b) For IDOCs, was there a spike witness? (initials <u>must</u> be in logbook)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			
(c) Spikes added:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A			

NOTE: Due to LIMS software constraints, new LIMS IDs need to be created when multiple/ supplemental spikes are used. Enter new LIMS ID below and use table to list all spikes included in it.

Spike LIMS ID: 1705879

Spike Name	LIMS ID	µL	Spike Name	LIMS ID	µL
<u>Pop spike 1</u>	<u>1703595</u>	<u>50</u>			
<u>Pop spike 2</u>	<u>1703596</u>	<u>50</u>			
<u>Trly</u>	<u>1705878</u>	<u>50</u>			

PREPARATION BENCH SHEET

RC 10/6/17
2600-3

F710207

Euofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710207-BLK1	Blank	0.25	20					20x
F710207-BLK2	Blank	0.25	20					20x
F710207-BLK3	Blank	0.25	20					20x
F710207-BLK4	Blank	0.26	20					Pre Blank 1709617 20x
F710207-BLK5	Blank	0.282	20					PostBlank 1709617 20x
F710207-BS1	LCS	0.25	20	1704421	20			20x
F710207-BS2	DORM4	0.1295	20	1705412	129.5			400x
F710207-BSD1	LCS Dup	0.25	20	1704421	20			20x
F710207-DUP1	Duplicate [1709615-02]	0.254	20					400x
F710207-MS1	Matrix Spike [1709615-02]	0.273	20	1705554	100			400x
F710207-MS2	Matrix Spike [1709617-01]	0.281	20	1705554	100			20 400x
F710207-MSD1	Matrix Spike Dup [1709615-02]	0.26	20	1705554	100			400x
F710207-MSD2	Matrix Spike Dup [1709617-01]	0.288	20	1705554	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00			

20x = 2.5µL
400x = 125µL

1703182
1705610
1705611
1705779

PREPARATION BENCH SHEET

MC 10/6/17
2600-3

F710207

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709615-01	ES-13_17LT012_091317_TOM_01_WB	0.28	20	-	-	-	Sample contains enough volume for QC 400x	
1709615-02	ES-13_17ET718_091817_TOM_02_WB	0.271	20	QC	-	-	MS/MSD 400x	
1709617-01	FRB-01_17SN001_091217_MUM_01_WB	0.27	20	QC	-	-	MS/MSD 400x → 20x	
1709617-04	FRB-01_17SN001_091217_MUM_04_WB	0.267	20	-	-	-	50x	
1709617-05	FRB-01_17SN001_091217_MUM_05_WB	0.267	20	-	-	-	50x	
1709617-06	FRB-01_17SN001_091217_MUM_06_WB	0.278	20	-	-	-	50x	
1709617-07	FRB-01_17SN001_091217_MUM_07_WB	0.269	20	-	-	-	20x	
1709617-08	FRB-01_17SN001_091217_MUM_08_WB	0.262	20	-	-	-	20x	
1709617-09	FRB-01_17SN001_091217_MUM_09_WB	0.269	20	-	-	-	20x	
1709617-10	FRB-01_17SN001_091217_MUM_10_WB	0.285	20	-	-	-	20x	
1709617-11	FRB-01_17SN001_091217_MUM_11_WB	0.261	20	-	-	-	20x	
1709617-12	FRB-01_17SN001_091217_MUM_12_WB	0.266	20	-	-	-	20x	
1709617-13	FRB-01_17SN001_091217_MUM_13_WB	0.263	20	-	-	-	20x	
1709617-14	FRB-01_17SN001_091217_MUM_14_WB	0.251	20	-	-	-	20x	
1709617-15	FRB-01_17SN001_091217_MUM_15_WB	0.271	20	-	-	-	20x	
1709617-16	FRB-01_17SN001_091217_MUM_16_WB	0.259	20	-	-	-	20x	
1709617-17	FRB-01_17SN001_091217_MUM_17_WB	0.273	20	-	-	-	20x	
1709617-18	FRB-01_17SN001_091217_MUM_18_WB	0.258	20	-	-	-	20x	
1709617-19	FRB-01_17SN001_091217_MUM_19_WB	0.274	20	-	-	-	20x	

BC 10/6/17
2600-3

PREPARATION BENCH SHEET

F710207

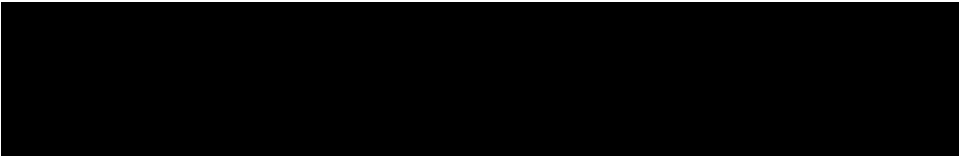
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/3/2017

1709617-20	FRB-01_17SN001_091217_MUM_20_WB	0.256	20	-	-	-	20x	
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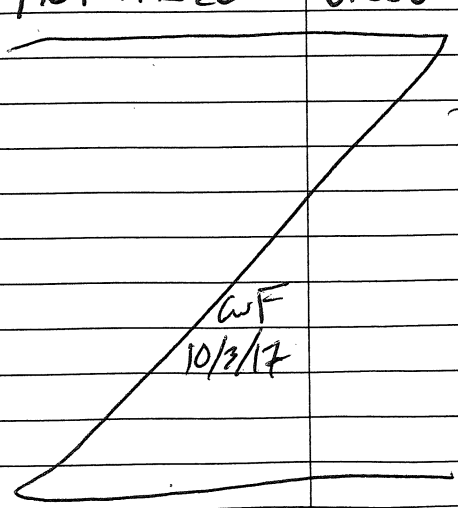
Technician: BC, WFF Batch#: F710207 Date: 10/3/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 10.19 Calibrated? Yes No Therm.#: 140418012 Calibrated? Yes No
 *Time in: 17:15 Actual Temp. (raw): 80.4 °C w/ CF: 80.1 °C
 Time out: 19:15 Actual Temp. (raw): Finer °C w/ CF: Finer °C
 *Time in can't begin before target temperature is reached
w/ Finer 10/4/17 spiked by WFF ms/msd

Final vol.: 20 mL (LIMS ID: _____) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: BC 10/3/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0077892 Calibration Date: 10/2/17
 HNO₃ LIMS ID: W/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705859 Dispenser #: 02K2749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 BRS
 Glass Vial # 00068124 Boiling Chip lot # 1702591 *Hotblock Position: M5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710207-BK1	0.284	23	1709617-10	0.285	BLK 2 = DORM-4 LIMS: 1705859
2	F710207-BK2	0.288	24	1709617-11	0.261	
3	F710207-BK3	0.254	25	1709617-12	0.266	
4	F710207-BK4	0.260	26	1709617-13	0.263	
5	F710207-BK5	0.282	27	1709617-14	0.251	Comments DUPI, MSI, MSD1. Source: 1709615-02
6	F710207-BS1	0.251	28	1709617-15	0.271	
7	F710207-BSD1	0.289	29	1709617-16	0.259	MS2, MSD2: Source: 1709617-03
8	F710207-BS2	0.1255 <i>w/ WFF 10/3/17</i>	30	1709617-17	0.273	
9	1709615-01	0.280	31	1709617-18	0.258	 <i>MS1, MSD1 spiked with acid of 1704421 by WFF 10/3/17</i> BLK4 + BLK5 are Pre/Post blanks for 1709617-1709618
10	F710207-BS3	0.271	32	1709617-19	0.274	
11	F710207-MS1	0.273	33	1709617-20	0.256	
12	F710207-MSD1	0.260	34			
13	F710207-DUPI	0.254	35			
14	1709617-01	0.270	36			
15	F710207-MS2	0.281	37			
16	F710207-MSD2	0.288	38			
17	1709617-04	0.267	39			
18	1709617-05	0.267	40			
19	1709617-06	0.278	41			
20	1709617-07	0.269	42			
21	1709617-08	0.262	43			
22	1709617-09	0.269	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J09011, 7J09012, 7J09013
Reviewer: DM	Dataset ID(s): THg26003-171006-2
Date: 10/9/2017	WO (s) #: Various
Batch #(s): F710193, F710207, F710232	

• Select the correct preparation method.

Analyte	Prep Method	Matrix
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest
<input checked="" type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric
<input checked="" type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation
<input type="checkbox"/> Hg0	NA	Water
<input type="checkbox"/> Inorg Hg	NA	Water

Analyst Initials: BC **Reviewer Initials:** DM

- | | | | |
|---|---|--|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | | | |
| (b) Check 5% of transcription from Instrument print-out and Excel file | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | | | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 50 ml / aliquot = Excel dilution value | | | |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J09011, 7J09012, 7J09013
Reviewer: 0	Dataset ID(s): THg26003-171006-2
Date: 10/9/2017	WO (s) #: Various
Batch #(s): F710193, F710207, F710232	0

Analyst Initials BC Reviewer Initials DM

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J09011, 7J09012, 7J09013
Reviewer: 0	Dataset ID(s): THg26003-171006-2
Date: 10/9/2017	WO (s) #: Various
Batch #(s): F710193, F710207, F710232	0

Analyst Initials BC **Reviewer Initials** _____

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | |
|---|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/11/17, 1/27/17 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: <u>BC 10/13/2017</u> _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>4/26/17, 5/19/17</u> _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>4/26/17, 5/19/17</u> _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

Reviewed 11/02/2017
Elizabeth Penta
Wood. PLC

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709618

PO#

C012505850

October 21, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709618

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October 21, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OB-01_17MT001_091817_MUM_01_WB	1709618-01	Tissue	18-Sep-17 08:30	22-Sep-17 10:15
OB-01_17MT002_091817_MUM_02_WB	1709618-02	Tissue	18-Sep-17 08:45	22-Sep-17 10:15
OB-01_17MT002_091817_MUM_03_WB	1709618-03	Tissue	18-Sep-17 08:45	22-Sep-17 10:15
OB-01_17MT002_091817_MUM_04_WB	1709618-04	Tissue	18-Sep-17 08:45	22-Sep-17 10:15
OB-01_17MT002_091817_MUM_05_WB	1709618-05	Tissue	18-Sep-17 08:45	22-Sep-17 10:15
OB-01_17MT002_091817_MUM_06_WB	1709618-06	Tissue	18-Sep-17 08:45	22-Sep-17 10:15
OB-01_17MT002_091817_MUM_07_WB	1709618-07	Tissue	18-Sep-17 08:45	22-Sep-17 10:15
OB-01_17MT002_091817_MUM_08_WB	1709618-08	Tissue	18-Sep-17 08:45	22-Sep-17 10:15
OB-01_17MT001_091917_MUM_09_WB	1709618-09	Tissue	19-Sep-17 08:30	22-Sep-17 10:15
OB-01_17MT001_091917_MUM_10_WB	1709618-10	Tissue	19-Sep-17 08:30	22-Sep-17 10:15
OB-01_17MT001_091917_MUM_11_WB	1709618-11	Tissue	19-Sep-17 08:30	22-Sep-17 10:15
OB-01_17MT001_091917_MUM_12_WB	1709618-12	Tissue	19-Sep-17 08:30	22-Sep-17 10:15
OB-01_17MT001_091917_MUM_13_WB	1709618-13	Tissue	19-Sep-17 08:30	22-Sep-17 10:15
OB-01_17MT002_091917_MUM_14_WB	1709618-14	Tissue	19-Sep-17 08:40	22-Sep-17 10:15
OB-01_17MT002_091917_MUM_15_WB	1709618-15	Tissue	19-Sep-17 08:40	22-Sep-17 10:15

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King**Reported:**
21-Oct-17 13:16

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:15:00 AM. The samples were received intact, on-ice within two sealed coolers at -27.1 and -21.6 degrees Celsius.

Client requested Lipids Analysis by NOAA1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in batch F710214. Samples 1709618-01 and 1709618-02 were used as the QC source in batch F710214. These samples were analyzed in sequences 7J16015 and 7J16021.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

Client: AMSC Foster Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/23/17 Labeled By: CSJ

Project: _____

Received By: LM Label Verified By: BC

of Coolers Received: 2

Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: N

Temp Blank Used: N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>1709618</u>	CF: <u>10.1 °C</u>	Date/time: <u>9/22/17 10:25</u>	By: <u>LM</u>
Cooler 1: <u>-27.2°C</u>	w/ CF: <u>-27.12°C</u>	Cooler 4: _____ °C	w/ CF: _____ °C
Cooler 2: <u>-21.73°C</u>	w/ CF: <u>-21.63°C</u>	Cooler 5: _____ °C	w/ CF: _____ °C
Cooler 3: _____ °C	w/ CF: _____ °C	Cooler 6: _____ °C	w/ CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	N	
Preservation type:	N	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4846 Cooler 2: 7878 1037 1884

1709618



1709618

Environmental Analysis Request/Chain of Custody

Client: Amed Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101		Project Name: USDC Penobscot		PN #: 3616186052.04A.055		Matrix: <input type="checkbox"/> Tissue <input type="checkbox"/> Ground <input type="checkbox"/> Surface		Analyses Requested		For Lab Use Only	
Project Manager: Rod Pendleton		P.O. #: C012508880		Sampler: JB		PWSID #: _____		Preservation Codes		SF #: _____	
State where samples were collected: ME		Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Quote #: _____		Soil: <input type="checkbox"/> Sediment <input type="checkbox"/> <input type="checkbox"/> Tissue		Water: <input type="checkbox"/> Wable <input type="checkbox"/> N/SES <input type="checkbox"/> Surface		SCR #: _____	
Sample Identification		Collection		Composite		Offier: Tissue		Total # of Containers		Remarks	
	Date	Time	Grab	Soil	Water	Offier	Tissue	Total # of Containers	# of 100% Lipid 1991a Ziploc	Freeze	
1	08-01_17MT001_091817_MUM_01_WB	091817	08:30	X			X	1	X		
2	08-01_17MT002_091817_MLV_02_WB	091817	08:40	X			X	1	X		
3	08-01_17MT002_091817_MUM_03_WB	091817	08:40	X			X	1	X		
4	08-01_17MT002_091817_MUM_04_WB	091817	08:45	X			X	1	X		
5	08-01_17MT002_091817_MUM_05_WB	091817	08:45	X			X	1	X		
6	08-01_17MT002_091817_MUM_05_WS	091817	08:45	X			X	1	X		
7	08-01_17MT002_091817_MUM_12_WB	091817	08:45	X			X	1	X		
8	08-01_17MT002_091817_MUM_08_WB	091817	08:45	X			X	1	X		
9	08-01_17MT001_091917_MUM_09_WB	091917	08:45	X			X	1	X		
10	08-01_17MT001_091917_MUM_10_WB	091917	08:45	X			X	1	X		
11	08-01_17MT001_091917_MLV_11_WB	091917	08:45	X			X	1	X		
12	08-01_17MT001_091917_MUM_12_WB	091917	08:45	X			X	1	X		
13	08-01_17MT001_091917_MUM_13_WB	091917	08:45	X			X	1	X		
14	08-01_17MT002_091917_MUM_14_WB	091917	08:45	X			X	1	X		
15	08-01_17MT002_091917_MUM_15_WS	091917	08:45	X			X	1	X		
16											

Turnaround Time Requested (TAT) (please check):		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Relinquished by:		Date		Time		Received by:		Date		Time	
(Rush TAT is subject to laboratory approval and surcharges.)						9/21/2017		1630							
Notes:				Relinquished by:		Date		Time		Received by:		Date		Time	
				Relinquished by:		Date		Time		Received by:		Date		Time	
				Relinquished by:		Date		Time		Received by:		Date		Time	
				Relinquished by:		Date		Time		Received by:		Date		Time	
Data Package Options (please check if required)		High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		Relinquished by Commercial Carrier		Date		Time		Received by:		Date		Time	
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		If yes, format: _____		UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other _____		Date		Time		Received by:		Date		Time	
				Temperature upon receipt: _____ °C											



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

OB-01_17MT001_091817_MUM_01_WB
1709618-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	86.9	0.204	1.82	ng/g	50	F710214	04-Oct-17	7J16021	13-Oct-17	EPA 1631B	
---------	------	-------	------	------	----	---------	-----------	---------	-----------	-----------	--



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

OB-01_17MT002_091817_MUM_02_WB
1709618-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	86.1	0.203	1.81	ng/g	50	F710214	04-Oct-17	7J16021	13-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

OB-01_17MT002_091817_MUM_03_WB
1709618-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	103	0.220	1.97	ng/g	50	F710214	04-Oct-17	7J16021	13-Oct-17	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

OB-01_17MT002_091817_MUM_04_WB
1709618-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	154	0.416	3.72	ng/g	100	F710214	04-Oct-17	7J16021	13-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

OB-01_17MT002_091817_MUM_05_WB
1709618-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	110	0.218	1.95	ng/g	50	F710214	04-Oct-17	7J16021	13-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

OB-01_17MT002_091817_MUM_06_WB
1709618-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	109	0.199	1.78	ng/g	50	F710214	04-Oct-17	7J16021	13-Oct-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

OB-01_17MT002_091817_MUM_07_WB
1709618-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	37.4	0.087	0.778	ng/g	20	F710214	04-Oct-17	7J16015	13-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

OB-01_17MT002_091817_MUM_08_WB
1709618-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	87.2	0.220	1.97	ng/g	50	F710214	04-Oct-17	7J16015	13-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

OB-01_17MT001_091917_MUM_09_WB
1709618-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	79.6	0.201	1.79	ng/g	50	F710214	04-Oct-17	7J16015	13-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

**OB-01_17MT001_091917_MUM_10_WB
1709618-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	242	1.74	15.5	ng/g	400	F710214	04-Oct-17	7J16015	13-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

**OB-01_17MT001_091917_MUM_11_WB
1709618-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	83.4	0.446	3.98	ng/g	100	F710214	04-Oct-17	7J16015	13-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

OB-01_17MT001_091917_MUM_12_WB
1709618-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	130	0.204	1.82	ng/g	50	F710214	04-Oct-17	7J16015	13-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

OB-01_17MT001_091917_MUM_13_WB
1709618-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	127	0.220	1.96	ng/g	50	F710214	04-Oct-17	7J16015	13-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

OB-01_17MT002_091917_MUM_14_WB
1709618-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	237	1.65	14.7	ng/g	400	F710214	04-Oct-17	7J16015	13-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

OB-01_17MT002_091917_MUM_15_WB
1709618-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	118	0.432	3.86	ng/g	100	F710214	04-Oct-17	7J16015	13-Oct-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J16015 - F710214											
Cal Standard (7J16015-CAL1)					Prepared & Analyzed: 13-Oct-17						
Mercury	0.517	-		ng/L	0.50100		103				
Cal Standard (7J16015-CAL2)					Prepared & Analyzed: 13-Oct-17						
Mercury	1.009	-		ng/L	1.0020		101				
Cal Standard (7J16015-CAL3)					Prepared & Analyzed: 13-Oct-17						
Mercury	4.953	-		ng/L	5.0100		98.9				
Cal Standard (7J16015-CAL4)					Prepared & Analyzed: 13-Oct-17						
Mercury	19.68	-		ng/L	20.040		98.2				
Cal Standard (7J16015-CAL5)					Prepared & Analyzed: 13-Oct-17						
Mercury	39.34	-		ng/L	40.080		98.2				
Calibration Blank (7J16015-CCB1)					Prepared & Analyzed: 13-Oct-17						
Mercury	0.083	-		ng/L							
Calibration Blank (7J16015-CCB2)					Prepared & Analyzed: 13-Oct-17						
Mercury	0.084	-		ng/L							
Calibration Blank (7J16015-CCB3)					Prepared & Analyzed: 13-Oct-17						
Mercury	0.106	-		ng/L							
Calibration Blank (7J16015-CCB4)					Prepared & Analyzed: 13-Oct-17						
Mercury	0.058	-		ng/L							
Calibration Blank (7J16015-CCB5)					Prepared & Analyzed: 13-Oct-17						
Mercury	0.103	-		ng/L							

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J16015 - F710214

Calibration Blank (7J16015-CCB6)											
Prepared & Analyzed: 13-Oct-17											
Mercury	0.114	-		ng/L							
Calibration Blank (7J16015-CCB7)											
Prepared & Analyzed: 13-Oct-17											
Mercury	0.118	-		ng/L							
Calibration Blank (7J16015-CCB8)											
Prepared & Analyzed: 13-Oct-17											
Mercury	0.236	-		ng/L							
Calibration Blank (7J16015-CCB9)											
Prepared & Analyzed: 13-Oct-17											
Mercury	0.183	-		ng/L							
Calibration Check (7J16015-CCV1)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.876	-		ng/L	5.0000		97.5	77-123			
Calibration Check (7J16015-CCV2)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.887	-		ng/L	5.0000		97.7	77-123			
Calibration Check (7J16015-CCV3)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.976	-		ng/L	5.0000		99.5	77-123			
Calibration Check (7J16015-CCV4)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.910	-		ng/L	5.0000		98.2	77-123			
Calibration Check (7J16015-CCV5)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.903	-		ng/L	5.0000		98.1	77-123			
Calibration Check (7J16015-CCV6)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.943	-		ng/L	5.0000		98.9	77-123			

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.4A055 Project Manager: Denise King	Reported: 21-Oct-17 13:16
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J16015 - F710214											
Calibration Check (7J16015-CCV7)					Prepared & Analyzed: 13-Oct-17						
Mercury	4.925	-		ng/L	5.0000		98.5	77-123			
Calibration Check (7J16015-CCV8)					Prepared & Analyzed: 13-Oct-17						
Mercury	5.100	-		ng/L	5.0000		102	77-123			
Calibration Check (7J16015-CCV9)					Prepared & Analyzed: 13-Oct-17						
Mercury	4.958	-		ng/L	5.0000		99.2	77-123			
Instrument Blank (7J16015-IBL1)					Prepared & Analyzed: 13-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J16015-IBL2)					Prepared & Analyzed: 13-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J16015-IBL3)					Prepared & Analyzed: 13-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7J16015-ICV1)					Prepared & Analyzed: 13-Oct-17						
Mercury	5.099	-		ng/L	5.0000		102	79-121			
Batch 7J16021 - F710214											
Cal Standard (7J16021-CAL1)					Prepared & Analyzed: 13-Oct-17						
Mercury	0.496	-		ng/L	0.50100		98.9				
Cal Standard (7J16021-CAL2)					Prepared & Analyzed: 13-Oct-17						
Mercury	1.076	-		ng/L	1.0020		107				

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AMEC Foster Wheeler
271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J16021 - F710214											
Cal Standard (7J16021-CAL3)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.921	-		ng/L	5.0100		98.2				
Cal Standard (7J16021-CAL4)											
Prepared & Analyzed: 13-Oct-17											
Mercury	19.71	-		ng/L	20.040		98.4				
Cal Standard (7J16021-CAL5)											
Prepared & Analyzed: 13-Oct-17											
Mercury	38.51	-		ng/L	40.080		96.1				
Calibration Blank (7J16021-CCB1)											
Prepared & Analyzed: 13-Oct-17											
Mercury	0.068	-		ng/L							
Calibration Blank (7J16021-CCB2)											
Prepared & Analyzed: 13-Oct-17											
Mercury	0.080	-		ng/L							
Calibration Blank (7J16021-CCB3)											
Prepared & Analyzed: 13-Oct-17											
Mercury	0.048	-		ng/L							
Calibration Blank (7J16021-CCB4)											
Prepared & Analyzed: 13-Oct-17											
Mercury	0.099	-		ng/L							
Calibration Blank (7J16021-CCB5)											
Prepared & Analyzed: 13-Oct-17											
Mercury	0.037	-		ng/L							
Calibration Blank (7J16021-CCB6)											
Prepared & Analyzed: 13-Oct-17											
Mercury	0.156	-		ng/L							
Calibration Blank (7J16021-CCB7)											
Prepared & Analyzed: 13-Oct-17											
Mercury	0.074	-		ng/L							

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J16021 - F710214

Calibration Blank (7J16021-CCB8)											
Prepared & Analyzed: 13-Oct-17											
Mercury	0.204	-		ng/L							
Calibration Blank (7J16021-CCB9)											
Prepared & Analyzed: 13-Oct-17											
Mercury	0.152	-		ng/L							
Calibration Check (7J16021-CCV1)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.825	-		ng/L	5.0000		96.5	77-123			
Calibration Check (7J16021-CCV2)											
Prepared & Analyzed: 13-Oct-17											
Mercury	5.019	-		ng/L	5.0000		100	77-123			
Calibration Check (7J16021-CCV3)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.816	-		ng/L	5.0000		96.3	77-123			
Calibration Check (7J16021-CCV4)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.772	-		ng/L	5.0000		95.4	77-123			
Calibration Check (7J16021-CCV5)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.852	-		ng/L	5.0000		97.0	77-123			
Calibration Check (7J16021-CCV6)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.853	-		ng/L	5.0000		97.1	77-123			
Calibration Check (7J16021-CCV7)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.781	-		ng/L	5.0000		95.6	77-123			
Calibration Check (7J16021-CCV8)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.988	-		ng/L	5.0000		99.8	77-123			

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.4A055 Project Manager: Denise King	Reported: 21-Oct-17 13:16
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J16021 - F710214

Calibration Check (7J16021-CCV9)					Prepared & Analyzed: 13-Oct-17						
Mercury	4.926	-		ng/L	5.0000		98.5	77-123			
Instrument Blank (7J16021-IBL1)					Prepared & Analyzed: 13-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J16021-IBL2)					Prepared & Analyzed: 13-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J16021-IBL3)					Prepared & Analyzed: 13-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7J16021-ICV1)					Prepared & Analyzed: 13-Oct-17						
Mercury	4.972	-		ng/L	5.0000		99.4	79-121			

Batch F710214 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710214-BLK1)					Prepared: 04-Oct-17 Analyzed: 13-Oct-17						
Mercury	0.179	0.090	0.800	ng/g							J
Blank (F710214-BLK2)					Prepared: 04-Oct-17 Analyzed: 13-Oct-17						
Mercury	0.109	0.090	0.800	ng/g							J
Blank (F710214-BLK3)					Prepared: 04-Oct-17 Analyzed: 13-Oct-17						
Mercury	0.096	0.090	0.800	ng/g							J
Blank (F710214-BLK4)					Prepared: 04-Oct-17 Analyzed: 13-Oct-17						
Mercury	ND	0.081	0.725	ng/g							F-03, U

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.4A055 Project Manager: Denise King	Reported: 21-Oct-17 13:16
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710214 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710214-BLK5) Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	ND	0.085	0.760	ng/g							F-03, U
Blank (F710214-BLK6) Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	0.163	0.090	0.800	ng/g							J
Blank (F710214-BLK7) Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	0.121	0.090	0.800	ng/g							J
Blank (F710214-BLK8) Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	0.116	0.090	0.800	ng/g							J
LCS (F710214-BS1) Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	7.800	0.090	0.800	ng/g	8.0160		97.3	75-125			
LCS (F710214-BS2) Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	345.6	3.53	31.5	ng/g	373.70		92.5	75-125			
LCS Dup (F710214-BSD1) Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	7.977	0.090	0.800	ng/g	8.0160		99.5	75-125	2.24	24	
Duplicate (F710214-DUP1) Source: 1709618-01 Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	95.75	0.221	1.98	ng/g		86.86			9.74	24	
Matrix Spike (F710214-MS1) Source: 1709618-01 Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	467.6	1.70	15.2	ng/g	380.23	86.86	100	71-125			
Matrix Spike (F710214-MS2) Source: 1709618-02 Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	458.2	1.71	15.3	ng/g	381.68	86.13	97.5	71-125			

Eurofins Frontier Global Sciences, Inc.



The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.4A055 Project Manager: Denise King	Reported: 21-Oct-17 13:16
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710214 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F710214-MSD1)		Source: 1709618-01			Prepared: 04-Oct-17 Analyzed: 13-Oct-17						
Mercury	458.9	1.72	15.4	ng/g	384.62	86.86	96.7	71-125	3.45	24	
Matrix Spike Dup (F710214-MSD2)		Source: 1709618-02			Prepared: 04-Oct-17 Analyzed: 13-Oct-17						
Mercury	438.2	1.61	14.3	ng/g	358.42	86.13	98.2	71-125	0.769	24	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.4A055
Project Manager: Denise King

Reported:
21-Oct-17 13:16

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- E-01 Sample was preceded by a sample exceeding the calibration curve and was reanalyzed for confirmation.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference





Frontier Global Sciences

THg26003-171013-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 13, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7J16014, 7J16015

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	101.32 units	202.64	96.37 units	192.73	103.3 %Rec
SEQ-CAL2	1	1.00 ng/L	193.18 units	193.18	188.23 units	188.23	100.9 %Rec
SEQ-CAL3	1	5.00 ng/L	928.88 units	185.78	923.93 units	184.79	99.1 %Rec
SEQ-CAL4	1	20.00 ng/L	3675.90 units	183.80	3670.95 units	183.55	98.4 %Rec
SEQ-CAL5	1	40.00 ng/L	7344.76 units	183.62	7339.81 units	183.50	98.4 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
186.56	+/- 3.95	2.1% RSD	189.80

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	4.95 units	±0.84	0.03 ng/L	±0.00

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	2	1.493 ng/L	±1.064
BLK	2	2	0.532 ng/L	±0.108
BLK	3	3	1.667 ng/L	±0.321
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: AL 10/16/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	CAL	SEQ-IBL1 ✓	1	10/13/2017 8:27:52	77629-1.RAW	8:27:52 AM	4.99 ✓			0.0	0.000	0.000	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2 ✓	1	10/13/2017 8:32:00	77630-1.RAW	8:32:00 AM	4.10 ✓			-0.9	-0.005	-0.005	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3 ✓	1	10/13/2017 8:36:09	77631-1.RAW	8:36:09 AM	5.77 ✓			0.8	0.004	0.004	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1 ✓	1	10/13/2017 8:40:17	77632-1.RAW	8:40:17 AM	101.32 ✓			96.4	0.517	0.517	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2 ✓	1	10/13/2017 8:44:26	77633-1.RAW	8:44:26 AM	193.18 ✓			188.2	1.009	1.009	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3 ✓	1	10/13/2017 8:48:34	77634-1.RAW	8:48:34 AM	928.88 ✓			923.9	4.953	4.953	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4 ✓	1	10/13/2017 8:52:42	77635-1.RAW	8:52:42 AM	3675.90 ✓			3670.9	19.677	19.677	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5 ✓	1	10/13/2017 8:56:51	77636-1.RAW	8:56:51 AM	7344.76 ✓			7339.8	39.343	39.343	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1 ✓	1	10/13/2017 9:00:59	77637-1.RAW	9:00:59 AM	956.17 ✓			951.2	5.099	5.099	ng/L	
Hg2600-3	BC	BLK	F710305-BLK1 ✓	10	10/13/2017 9:08:01	77638-1.RAW	9:08:01 AM	46.84 ✓			41.9	0.225	2.245	ng/L	
Hg2600-3	BC	BLK	F710305-BLK2 ✓	10	10/13/2017 9:12:10	77639-1.RAW	9:12:10 AM	18.76 ✓	1		13.8	0.074	0.740	ng/L	
Hg2600-3	BC	SAM	F710305-BS1 ✓	10	10/13/2017 9:16:18	77640-1.RAW	9:16:18 AM	3847.26 ✓	1		3842.3	20.447	204.466	ng/L	
Hg2600-3	BC	SAM	F710305-BSD1 ✓	10	10/13/2017 9:20:27	77641-1.RAW	9:20:27 AM	3875.07 ✓	1		3870.1	20.596	205.956	ng/L	
Hg2600-3	BC	SAM	1709571-04 ✓	10	10/13/2017 9:24:35	77642-1.RAW	9:24:35 AM	785.61 ✓	1		780.7	4.035	40.353	ng/L	
Hg2600-3	BC	SAM	1709571-05 ✓	10	10/13/2017 9:28:43	77643-1.RAW	9:28:43 AM	393.22 ✓	1		388.3	1.932	19.320	ng/L	
Hg2600-3	BC	SAM	1709571-06 ✓	10	10/13/2017 9:32:52	77644-1.RAW	9:32:52 AM	364.53 ✓	1		359.6	1.778	17.782	ng/L	
Hg2600-3	BC	SAM	1709571-07 ✓	10	10/13/2017 9:37:00	77645-1.RAW	9:37:00 AM	251.83 ✓	1		246.9	1.174	11.741	ng/L	
Hg2600-3	BC	SAM	1709572-01 ✓	50	10/13/2017 9:41:09	77646-1.RAW	9:41:09 AM	104.72 ✓	1		99.8	0.505	25.246	ng/L	
Hg2600-3	BC	SAM	1709572-02 ✓	50	10/13/2017 9:45:17	77647-1.RAW	9:45:17 AM	99.06 ✓	1		94.1	0.475	23.729	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1 ✓	1	10/13/2017 9:49:25	77648-1.RAW	9:49:25 AM	914.70 ✓			909.7	4.876	4.876	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1 ✓	1	10/13/2017 9:53:34	77649-1.RAW	9:53:34 AM	20.42 ✓			15.5	0.083	0.083	ng/L	
Hg2600-3	BC	SAM	ws		10/13/2017 10:03:02	77650-1.RAW	10:03:02 AM	28.95 ✓		x	24.0	0.129	0.000	ng/L	
Hg2600-3	BC	SAM	1709572-03 ✓	10	10/13/2017 10:07:10	77651-1.RAW	10:07:10 AM	712.76 ✓	1		707.8	3.645	36.448	ng/L	
Hg2600-3	BC	SAM	1709572-04 ✓	10	10/13/2017 10:11:19	77652-1.RAW	10:11:19 AM	514.10 ✓	1		509.1	2.580	25.799	ng/L	
Hg2600-3	BC	SAM	1709572-05 ✓	10	10/13/2017 10:15:27	77653-1.RAW	10:15:27 AM	589.27 ✓	1		584.3	2.983	29.828	ng/L	
Hg2600-3	BC	SAM	1709572-06 ✓	10	10/13/2017 10:19:36	77654-1.RAW	10:19:36 AM	623.29 ✓	1		618.3	3.165	31.652	ng/L	
Hg2600-3	BC	SAM	1709572-07 ✓	10	10/13/2017 10:23:44	77655-1.RAW	10:23:44 AM	861.97 ✓	1		857.0	4.445	44.446	ng/L	
Hg2600-3	BC	SAM	1709572-08 ✓	10	10/13/2017 10:27:52	77656-1.RAW	10:27:52 AM	567.33 ✓	1		562.4	2.865	28.652	ng/L	
Hg2600-3	BC	SAM	1709572-09 ✓	10	10/13/2017 10:32:01	77657-1.RAW	10:32:01 AM	549.22 ✓	1		544.3	2.768	27.682	ng/L	
Hg2600-3	BC	SAM	1709572-10 ✓	10	10/13/2017 10:36:10	77658-1.RAW	10:36:10 AM	786.54 ✓	1		781.6	4.040	40.403	ng/L	
Hg2600-3	BC	SAM	1709572-11 ✓	10	10/13/2017 10:40:19	77659-1.RAW	10:40:19 AM	624.54 ✓	1		619.6	3.172	31.719	ng/L	
Hg2600-3	BC	SAM	1709572-12 ✓	10	10/13/2017 10:44:27	77660-1.RAW	10:44:27 AM	636.33 ✓	1		631.4	3.235	32.351	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2 ✓	1	10/13/2017 10:48:36	77661-1.RAW	10:48:36 AM	916.68 ✓			911.7	4.887	4.887	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2 ✓	1	10/13/2017 10:52:44	77662-1.RAW	10:52:44 AM	20.57 ✓			15.6	0.084	0.084	ng/L	
Hg2600-3	BC	SAM	1709572-13 ✓	10	10/13/2017 10:56:53	77663-1.RAW	10:56:53 AM	1010.99 ✓	1		1006.0	5.243	52.434	ng/L	
Hg2600-3	BC	SAM	1709572-14 ✓	10	10/13/2017 11:01:01	77664-1.RAW	11:01:01 AM	810.56 ✓	1		805.6	4.169	41.690	ng/L	
Hg2600-3	BC	SAM	1709572-15 ✓	10	10/13/2017 11:05:09	77665-1.RAW	11:05:09 AM	1087.22 ✓	1		1082.3	5.652	56.520	ng/L	
Hg2600-3	BC	SAM	1709574-01 ✓	100	10/13/2017 11:09:18	77666-1.RAW	11:09:18 AM	1077.09 ✓	1		1072.1	5.732	57.320	ng/L	
Hg2600-3	BC	SAM	1709572-01RE1 ✓	10	10/13/2017 11:13:26	77667-1.RAW	11:13:26 AM	482.10 ✓	1		477.1	2.408	24.084	ng/L	
Hg2600-3	BC	SAM	1709572-02RE1 ✓	10	10/13/2017 11:17:35	77668-1.RAW	11:17:35 AM	465.91 ✓	1		461.0	2.322	23.216	ng/L	
Hg2600-3	BC	SAM	F710305-MS1 ✓	400	10/13/2017 11:21:43	77669-1.RAW	11:21:43 AM	1186.37 ✓	1		1181.4	6.329	2531.595	ng/L	
Hg2600-3	BC	SAM	F710305-MSD1 ✓	400	10/13/2017 11:25:52	77670-1.RAW	11:25:52 AM	1260.17 ✓	1		1255.2	6.725	2689.830	ng/L	
Hg2600-3	BC	SAM	F710305-MS2 ✓	400	10/13/2017 11:30:00	77671-1.RAW	11:30:00 AM	1192.28 ✓	1		1187.3	6.361	2544.267	ng/L	
Hg2600-3	BC	SAM	F710305-MSD2 ✓	400	10/13/2017 11:34:09	77672-1.RAW	11:34:09 AM	1175.52 ✓	1		1170.6	6.271	2508.331	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3 ✓	1	10/13/2017 11:38:17	77673-1.RAW	11:38:17 AM	933.30 ✓			928.3	4.976	4.976	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3 ✓	1	10/13/2017 11:42:25	77674-1.RAW	11:42:25 AM	24.76 ✓			19.8	0.106	0.106	ng/L	
Hg2600-3	BC	BLK	F710306-BLK1 ✓	10	10/13/2017 11:46:34	77675-1.RAW	11:46:34 AM	16.30 ✓	2		11.3	0.061	0.608	ng/L	
Hg2600-3	BC	BLK	F710306-BLK2 ✓	10	10/13/2017 11:50:42	77676-1.RAW	11:50:42 AM	13.46 ✓	2		8.5	0.046	0.456	ng/L	
Hg2600-3	BC	SAM	F710306-BS1 ✓	10	10/13/2017 11:54:51	77677-1.RAW	11:54:51 AM	3846.10 ✓	2		3841.1	20.536	205.364	ng/L	
Hg2600-3	BC	SAM	F710306-BSD1 ✓	10	10/13/2017 11:58:59	77678-1.RAW	11:58:59 AM	3929.85 ✓	2		3924.9	20.985	209.853	ng/L	
Hg2600-3	BC	SAM	1709574-02 ✓	100	10/13/2017 12:03:08	77679-1.RAW	12:03:08 PM	1075.49 ✓	2		1070.5	5.733	57.305	ng/L	
Hg2600-3	BC	SAM	1709574-03 ✓	100	10/13/2017 12:07:16	77680-1.RAW	12:07:16 PM	957.74 ✓	2		952.8	5.102	510.188	ng/L	
Hg2600-3	BC	SAM	1709574-04 ✓	100	10/13/2017 12:11:25	77681-1.RAW	12:11:25 PM	938.39 ✓	2		933.4	4.998	499.816	ng/L	
Hg2600-3	BC	SAM	1709574-05 ✓	100	10/13/2017 12:15:33	77682-1.RAW	12:15:33 PM	611.93 ✓	2		607.0	3.248	324.824	ng/L	
Hg2600-3	BC	SAM	1709574-06 ✓	100	10/13/2017 12:19:41	77683-1.RAW	12:19:41 PM	472.30 ✓	2		467.3	2.500	249.979	ng/L	
Hg2600-3	BC	SAM	1709574-07 ✓	100	10/13/2017 12:23:50	77684-1.RAW	12:23:50 PM	301.42 ✓	2		296.5	1.584	158.382	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4 ✓	1	10/13/2017 12:27:58	77685-1.RAW	12:27:58 PM	920.93 ✓			916.0	4.910	4.910	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	CAL	SEQ-CCB4	1	10/13/2017 12:32:07	77686-1.RAW	12:32:07 PM	15.85	1		10.9	0.058	0.058	ng/L	
Hg2600-3	BC	SAM	1709574-08	100	10/13/2017 12:36:15	77687-1.RAW	12:36:15 PM	216.29	2		211.3	1.128	112.750	ng/L	
Hg2600-3	BC	SAM	1709574-09	100	10/13/2017 12:40:24	77688-1.RAW	12:40:24 PM	188.45	2		183.5	0.978	97.827	ng/L	
Hg2600-3	BC	SAM	1709574-10	100	10/13/2017 12:44:32	77689-1.RAW	12:44:32 PM	113.33	2		108.4	0.576	57.561	ng/L	
Hg2600-3	BC	SAM	1709574-11	100	10/13/2017 12:48:41	77690-1.RAW	12:48:41 PM	127.35	2		122.4	0.651	65.076	ng/L	
Hg2600-3	BC	SAM	1709574-12	100	10/13/2017 12:52:49	77691-1.RAW	12:52:49 PM	81.92	2		77.0	0.407	40.724	ng/L	
Hg2600-3	BC	SAM	1709574-13	50	10/13/2017 12:56:57	77692-1.RAW	12:56:57 PM	124.71	2		119.8	0.631	31.564	ng/L	
Hg2600-3	BC	SAM	1709574-14	50	10/13/2017 13:01:06	77693-1.RAW	1:01:06 PM	123.65	2		118.7	0.626	31.280	ng/L	
Hg2600-3	BC	SAM	1709574-15	50	10/13/2017 13:05:14	77694-1.RAW	1:05:14 PM	76.86	2		71.9	0.375	18.740	ng/L	
Hg2600-3	BC	SAM	1709575-01	50	10/13/2017 13:09:23	77695-1.RAW	1:09:23 PM	3705.77	2		3700.8	19.827	991.338	ng/L	
Hg2600-3	BC	SAM	1709575-02	50	10/13/2017 13:13:31	77696-1.RAW	1:13:31 PM	1532.8	2		1527.8	8.179	408.952	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	10/13/2017 13:17:40	77697-1.RAW	1:17:40 PM	919.62			914.7	4.903	4.903	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	10/13/2017 13:21:48	77698-1.RAW	1:21:48 PM	24.11			19.2	0.103	0.103	ng/L	
Hg2600-3	BC	SAM	1709575-03	100	10/13/2017 13:25:56	77699-1.RAW	1:25:56 PM	312.45	2		307.5	1.643	164.295	ng/L	
Hg2600-3	BC	SAM	1709575-04	100	10/13/2017 13:30:05	77700-1.RAW	1:30:05 PM	142.99	2		138.0	0.735	73.459	ng/L	
Hg2600-3	BC	SAM	1709575-05	100	10/13/2017 13:34:13	77701-1.RAW	1:34:13 PM	136.04	2		131.1	0.697	69.734	ng/L	
Hg2600-3	BC	SAM	1709575-06	100	10/13/2017 13:38:22	77702-1.RAW	1:38:22 PM	87.73	2		82.8	0.438	43.838	ng/L	
Hg2600-3	BC	SAM	1709574-10RE1	10	10/13/2017 13:42:30	77703-1.RAW	1:42:30 PM	1067.00	2		1062.0	5.640	56.397	ng/L	
Hg2600-3	BC	SAM	1709574-11RE1	10	10/13/2017 13:46:39	77704-1.RAW	1:46:39 PM	1184.93	2		1180.0	6.272	62.718	ng/L	
Hg2600-3	BC	SAM	1709574-12RE1	10	10/13/2017 13:50:47	77705-1.RAW	1:50:47 PM	750.38	2		745.4	3.942	39.425	ng/L	
Hg2600-3	BC	SAM	1709574-13RE1	10	10/13/2017 13:54:56	77706-1.RAW	1:54:56 PM	598.94	2		594.0	3.131	31.307	ng/L	
Hg2600-3	BC	SAM	1709574-14RE1	10	10/13/2017 13:59:04	77707-1.RAW	1:59:04 PM	566.92	2		562.0	2.959	29.591	ng/L	
Hg2600-3	BC	SAM	1709574-15RE1	10	10/13/2017 14:03:12	77708-1.RAW	2:03:12 PM	358.42	2		353.5	1.841	18.415	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	10/13/2017 14:07:21	77709-1.RAW	2:07:21 PM	927.11			922.2	4.943	4.943	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	10/13/2017 14:11:29	77710-1.RAW	2:11:29 PM	26.19			21.2	0.114	0.114	ng/L	
Hg2600-3	BC	SAM	F710306-MS1	400	10/13/2017 14:15:38	77711-1.RAW	2:15:38 PM	1239.13	2		1234.2	6.614	2645.679	ng/L	
Hg2600-3	BC	SAM	F710306-MSD1	400	10/13/2017 14:19:46	77712-1.RAW	2:19:46 PM	1206.49	2		1201.5	6.439	2575.695	ng/L	
Hg2600-3	BC	SAM	F710306-MS2	400	10/13/2017 14:23:55	77713-1.RAW	2:23:55 PM	1567.58	2		1562.6	8.375	3349.912	ng/L	
Hg2600-3	BC	SAM	F710306-MSD2	400	10/13/2017 14:28:03	77714-1.RAW	2:28:03 PM	1632.71	2		1627.8	8.724	3489.558	ng/L	
Hg2600-3	BC	SAM	1709575-06RE1	10	10/13/2017 14:32:12	77715-1.RAW	2:32:12 PM	825.61	2		820.7	4.346	43.457	ng/L	
Hg2600-3	BC	BLK	F710214-BLK6	20	10/13/2017 14:36:20	77716-1.RAW	2:36:20 PM	23.95	3		19.0	0.102	2.037	ng/L	
Hg2600-3	BC	BLK	F710214-BLK7	20	10/13/2017 14:40:29	77717-1.RAW	2:40:29 PM	19.09	3		14.1	0.076	1.516	ng/L	
Hg2600-3	BC	BLK	F710214-BLK8	20	10/13/2017 14:44:37	77718-1.RAW	2:44:37 PM	18.48	3		13.5	0.073	1.450	ng/L	
Hg2600-3	BC	SAM	1709618-07	20	10/13/2017 14:48:46	77719-1.RAW	2:48:46 PM	4507.01	3		4502.1	24.049	480.978	ng/L	
Hg2600-3	BC	SAM	1709618-08	20	10/13/2017 14:52:54	77720-1.RAW	2:52:54 PM	9501.79	3		9496.8	50.822	1016.446	ng/L	
Hg2600-3	BC	SAM	ws		10/13/2017 15:00:04	77722-1.RAW	3:00:04 PM	89.16		x	84.2	0.451	0.000	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	10/13/2017 15:04:12	77721-2.RAW	3:04:12 PM	923.68			918.7	4.925	4.925	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	10/13/2017 15:08:21	77723-1.RAW	3:08:21 PM	26.91			22.0	0.118	0.118	ng/L	
Hg2600-3	BC	SAM	1709618-08RE1	50	10/13/2017 15:12:29	77724-1.RAW	3:12:29 PM	4144.32	3		4139.4	22.155	1107.740	ng/L	
Hg2600-3	BC	SAM	1709618-09	50	10/13/2017 15:16:38	77725-1.RAW	3:16:38 PM	4151.86	3		4146.9	22.195	1109.761	ng/L	
Hg2600-3	BC	SAM	1709618-10	50	10/13/2017 15:20:46	77726-1.RAW	3:20:46 PM	11079.80	3		11074.8	59.331	2966.544	ng/L	
Hg2600-3	BC	SAM	1709618-11	50	10/13/2017 15:24:55	77727-1.RAW	3:24:55 PM	3845.29	3		3840.3	20.552	1027.596	ng/L	
Hg2600-3	BC	SAM	1709618-12	50	10/13/2017 15:29:03	77728-1.RAW	3:29:03 PM	6668.06	3		6663.1	35.683	1784.137	ng/L	
Hg2600-3	BC	SAM	1709618-13	50	10/13/2017 15:33:12	77729-1.RAW	3:33:12 PM	6043.11	3		6038.2	32.333	1616.642	ng/L	
Hg2600-3	BC	SAM	1709618-14	50	10/13/2017 15:37:20	77730-1.RAW	3:37:20 PM	10341.49	3		10336.5	55.373	2768.667	ng/L	
Hg2600-3	BC	SAM	1709618-15	50	10/13/2017 15:41:28	77731-1.RAW	3:41:28 PM	5442.92	3		5438.0	29.116	1455.783	ng/L	
Hg2600-3	BC	SAM	1709619-01	50	10/13/2017 15:45:37	77732-1.RAW	3:45:37 PM	7584.76	3		7579.8	40.597	2029.825	ng/L	
Hg2600-3	BC	SAM	1709619-02	50	10/13/2017 15:50:12	77733-2.RAW	3:50:12 PM	5430.89	3		5425.9	29.051	1452.558	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	10/13/2017 15:54:21	77734-1.RAW	3:54:21 PM	956.44			951.5	5.100	5.100	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8	1	10/13/2017 15:58:29	77735-1.RAW	3:58:29 PM	48.90			43.9	0.236	0.236	ng/L	
Hg2600-3	BC	SAM	1709618-10RE1	400	10/13/2017 16:02:38	77736-1.RAW	4:02:38 PM	1464.49	3		1459.5	7.819	3127.740	ng/L	
Hg2600-3	BC	SAM	1709618-11RE1	100	10/13/2017 16:06:46	77737-1.RAW	4:06:46 PM	1960.23	3		1955.3	10.464	1046.415	ng/L	
Hg2600-3	BC	SAM	1709618-14RE1	400	10/13/2017 16:10:55	77738-1.RAW	4:10:55 PM	1507.42	3		1502.5	8.049	3219.787	ng/L	
Hg2600-3	BC	SAM	1709618-15RE1	100	10/13/2017 16:15:03	77739-1.RAW	4:15:03 PM	2861.62	3		2856.7	15.296	1529.585	ng/L	
Hg2600-3	BC	SAM	1709619-01RE1	100	10/13/2017 16:19:12	77740-1.RAW	4:19:12 PM	3907.35	3		3902.4	20.901	2090.125	ng/L	
Hg2600-3	BC	SAM	1709619-02RE1	100	10/13/2017 16:23:20	77741-1.RAW	4:23:20 PM	2717.75	3		2712.8	14.525	1452.466	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV9	1	10/13/2017 16:27:28	77742-1.RAW	4:27:28 PM	929.93			925.0	4.958	4.958	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB9	1	10/13/2017 16:31:37	77743-1.RAW	4:31:37 PM	39.07			34.1	0.183	0.183	ng/L	

TotalMercury EPA1631
 Operatr BC
 BlankSi 4.9521
 Calib Eqn: Conc = (Area-4.952
 Run Date: #####
 Blank SD: 0.839730403
 Worksh THg260(CalibFa 186.56
 Status: QC Warnings:3/QC E
 Run Time: 15:46:03
 Blank RSD%: 16.95706196
 Method #### R: 1 R²: 1
 CF SD: 3.957906196
 CF RSD%: 2.121519254
 Descrip THg26003-171013-1

Sample/ID	Location Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean			0.00	3.66					77624-1.RAW	8:08:27	683.29	Clean	OK	1
clean									77625-1.RAW	8:11:18	0.00	Clean	NP	1
ws			4.95	0.00					77626-1.RAW	8:15:27	4.57	Sample	OK	1
ws			4.95	0.00					77627-1.RAW	8:19:35	3.65	Sample	OK	1
ws			4.95	0.00					77628-1.RAW	8:23:43	4.52	Sample	OK	1
SEQ-IBL1	A1	1	0.00	0.03					77629-1.RAW	8:27:52	4.99	Sample	OK	1
SEQ-IBL2	A2	1	0.00	0.02					77630-1.RAW	8:32:00	4.10	Sample	OK	1
SEQ-IBL3	A3	1	0.00	0.03					77631-1.RAW	8:36:09	5.77	Sample	OK	1
SEQ-CAL1	A4	1	4.95	0.52		103.32			77632-1.RAW	8:40:17	101.32	Sample	OK	1
SEQ-CAL2	A5	1	4.95	1.01		100.89			77633-1.RAW	8:44:26	193.18	Sample	OK	1
SEQ-CAL3	A6	1	4.95	4.95		99.05			77634-1.RAW	8:48:34	928.88	Sample	OK	1
SEQ-CAL4	A7	1	4.95	19.68		98.39			77635-1.RAW	8:52:42	3675.90	Sample	OK	1
SEQ-CAL5	A8	1	4.95	39.34		98.36			77636-1.RAW	8:56:51	7344.76	Sample	FB	1
SEQ-ICV1	A9	1	4.95	5.10		101.97			77637-1.RAW	9:00:59	956.17	Sample	OK	1
F710305-BLK1	A10	10	4.95	2.25					77638-1.RAW	9:08:01	46.84	Sample	OK	1
F710305-BLK2	A11	10	4.95	0.74					77639-1.RAW	9:12:10	18.76	Sample	OK	1
F710305-BS1	A12	10	4.95	205.96					77640-1.RAW	9:16:18	3847.26	Sample	FB	1
F710305-BSD1	B1	10	4.95	207.45					77641-1.RAW	9:20:27	3875.07	Sample	OK	1
1709571-04	B2	10	4.95	41.85					77642-1.RAW	9:24:35	785.61	Sample	OK	1
1709571-05	B3	10	4.95	20.81					77643-1.RAW	9:28:43	393.22	Sample	OK	1
1709571-06	B4	10	4.95	19.27					77644-1.RAW	9:32:52	364.53	Sample	OK	1
1709571-07	B5	10	4.95	13.23					77645-1.RAW	9:37:00	251.83	Sample	OK	1
1709572-01	B6	50	4.95	26.74					77646-1.RAW	9:41:09	104.72	Sample	OK	1
1709572-02	B7	50	4.95	25.22					77647-1.RAW	9:45:17	99.06	Sample	OK	1
SEQ-CCV1	B8	1	4.95	4.88		97.53			77648-1.RAW	9:49:25	914.70	Sample	OK	1
SEQ-CCB1	B9	1	4.95	0.08		0.00			77649-1.RAW	9:53:34	20.42	Sample	OK	1
ws			4.95	0.13					77650-1.RAW	10:03:02	28.95	Sample	OK	1
1709572-03	B10	10	4.95	37.94					77651-1.RAW	10:07:10	712.76	Sample	OK	1
1709572-04	B11	10	4.95	27.29					77652-1.RAW	10:11:19	514.10	Sample	OK	1
1709572-05	B12	10	4.95	31.32					77653-1.RAW	10:15:27	589.27	Sample	OK	1
1709572-06	C1	10	4.95	33.14					77654-1.RAW	10:19:36	623.29	Sample	OK	1
1709572-07	C2	10	4.95	45.94					77655-1.RAW	10:23:44	861.97	Sample	OK	1
1709572-08	C3	10	4.95	30.14					77656-1.RAW	10:27:52	567.33	Sample	OK	1
1709572-09	C4	10	4.95	29.17					77657-1.RAW	10:32:01	549.22	Sample	OK	1
1709572-10	C5	10	4.95	41.89					77658-1.RAW	10:36:10	786.54	Sample	OK	1
1709572-11	C6	10	4.95	33.21					77659-1.RAW	10:40:19	624.54	Sample	OK	1
1709572-12	C7	10	4.95	33.84					77660-1.RAW	10:44:27	636.33	Sample	OK	1
SEQ-CCV2	C8	1	4.95	4.89		97.74			77661-1.RAW	10:48:36	916.68	Sample	OK	1
SEQ-CCB2	C9	1	4.95	0.08		0.00			77662-1.RAW	10:52:44	20.57	Sample	OK	1
1709572-13	C10	10	4.95	53.93					77663-1.RAW	10:56:53	1010.99	Sample	OK	1
1709572-14	C11	10	4.95	43.18					77664-1.RAW	11:01:01	810.56	Sample	OK	1
1709572-15	C12	10	4.95	58.01					77665-1.RAW	11:05:09	1087.22	Sample	OK	1

1709574-01	D1	100	4.95	574.69		77666-1.RAW	11:09:18	1077.09	Sample	OK	1
1709572-01RE1	D2	10	4.95	25.58		77667-1.RAW	11:13:26	482.10	Sample	OK	1
1709572-02RE1	D3	10	4.95	24.71		77668-1.RAW	11:17:35	465.91	Sample	OK	1
F710305-MS1	D4	400	4.95	2533.05	9853.14	77669-1.RAW	11:21:43	1186.37	Sample	OK	1
F710305-MSD1	D5	400	4.95	2691.28		77670-1.RAW	11:25:52	1260.17	Sample	OK	1
F710305-MS2	D6	400	4.95	2545.74	94.52	77671-1.RAW	11:30:00	1192.28	Sample	OK	1
F710305-MSD2	D7	400	4.95	2509.80		77672-1.RAW	11:34:09	1175.52	Sample	OK	1
SEQ-CCV3	D8	1	4.95	4.98	99.52	77673-1.RAW	11:38:17	933.30	Sample	OK	1
SEQ-CCB3	D9	1	4.95	0.11	0.00	77674-1.RAW	11:42:25	24.76	Sample	OK	1
F710306-BLK1	D10	10	4.95	0.61		77675-1.RAW	11:46:34	16.30	Sample	OK	1
F710306-BLK2	D11	10	4.95	0.46		77676-1.RAW	11:50:42	13.46	Sample	OK	1
F710306-BS1	D12	10	4.95	205.89		77677-1.RAW	11:54:51	3846.10	Sample	OK	1
F710306-BSD1	A1	10	4.95	210.38		77678-1.RAW	11:58:59	3929.85	Sample	OK	1
1709574-02	A2	100	4.95	573.83		77679-1.RAW	12:03:08	1075.49	Sample	OK	1
1709574-03	A3	100	4.95	510.71		77680-1.RAW	12:07:16	957.74	Sample	OK	1
1709574-04	A4	100	4.95	500.34		77681-1.RAW	12:11:25	938.39	Sample	OK	1
1709574-05	A5	100	4.95	325.35		77682-1.RAW	12:15:33	611.93	Sample	OK	1
1709574-06	A6	100	4.95	250.51		77683-1.RAW	12:19:41	472.30	Sample	OK	1
1709574-07	A7	100	4.95	158.91		77684-1.RAW	12:23:50	301.42	Sample	OK	1
SEQ-CCV4	A8	1	4.95	4.91	98.20	77685-1.RAW	12:27:58	920.93	Sample	OK	1
SEQ-CCB4	A9	1	4.95	0.06	0.00	77686-1.RAW	12:32:07	15.85	Sample	OK	1
1709574-08	A10	100	4.95	113.28		77687-1.RAW	12:36:15	216.29	Sample	OK	1
1709574-09	A11	100	4.95	98.36		77688-1.RAW	12:40:24	188.45	Sample	OK	1
1709574-10	A12	100	4.95	58.09		77689-1.RAW	12:44:32	113.33	Sample	OK	1
1709574-11	B1	100	4.95	65.61		77690-1.RAW	12:48:41	127.35	Sample	OK	1
1709574-12	B2	100	4.95	41.25		77691-1.RAW	12:52:49	81.92	Sample	OK	1
1709574-13	B3	50	4.95	32.10		77692-1.RAW	12:56:57	124.71	Sample	OK	1
1709574-14	B4	50	4.95	31.81		77693-1.RAW	13:01:06	123.65	Sample	OK	1
1709574-15	B5	50	4.95	19.27		77694-1.RAW	13:05:14	76.86	Sample	OK	1
1709575-01	B6	50	4.95	991.86		77695-1.RAW	13:09:23	3705.77	Sample	FB	1
1709575-02	B7	50	4.95	409.48		77696-1.RAW	13:13:31	1532.80	Sample	OK	1
SEQ-CCV5	B8	1	4.95	4.90	98.06	77697-1.RAW	13:17:40	919.62	Sample	OK	1
SEQ-CCB5	B9	1	4.95	0.10	0.00	77698-1.RAW	13:21:48	24.11	Sample	OK	1
1709575-03	B10	100	4.95	164.82		77699-1.RAW	13:25:56	312.45	Sample	OK	1
1709575-04	B11	100	4.95	73.99		77700-1.RAW	13:30:05	142.99	Sample	OK	1
1709575-05	B12	100	4.95	70.27		77701-1.RAW	13:34:13	136.04	Sample	OK	1
1709575-06	C1	100	4.95	44.37		77702-1.RAW	13:38:22	87.73	Sample	OK	1
1709574-10RE1	C2	10	4.95	56.93		77703-1.RAW	13:42:30	1067.00	Sample	OK	1
1709574-11RE1	C3	10	4.95	63.25		77704-1.RAW	13:46:39	1184.93	Sample	OK	1
1709574-12RE1	C4	10	4.95	39.96		77705-1.RAW	13:50:47	750.38	Sample	OK	1
1709574-13RE1	C5	10	4.95	31.84		77706-1.RAW	13:54:56	598.94	Sample	OK	1
1709574-14RE1	C6	10	4.95	30.12		77707-1.RAW	13:59:04	566.92	Sample	OK	1
1709574-15RE1	C7	10	4.95	18.95		77708-1.RAW	14:03:12	358.42	Sample	OK	1
SEQ-CCV6	C8	1	4.95	4.94	98.86	77709-1.RAW	14:07:21	927.11	Sample	OK	1
SEQ-CCB6	C9	1	4.95	0.11	0.00	77710-1.RAW	14:11:29	26.19	Sample	OK	1
F710306-MS1	C10	400	4.95	2646.19	237578.98	77711-1.RAW	14:15:38	1239.13	Sample	OK	1
F710306-MSD1	C11	400	4.95	2576.21		77712-1.RAW	14:19:46	1206.49	Sample	OK	1
F710306-MS2	C12	400	4.95	3350.40	129.95	77713-1.RAW	14:23:55	1567.58	Sample	OK	1

F710306-MSD2	D1	400	4.95	3490.05		77714-1.RAW	14:28:03	1632.71	Sample	OK	1
1709575-06RE1	D2	10	4.95	43.99		77715-1.RAW	14:32:12	825.61	Sample	OK	1
F710214-BLK6	D3	20	4.95	2.04		77716-1.RAW	14:36:20	23.95	Sample	OK	1
F710214-BLK7	D4	20	4.95	1.52		77717-1.RAW	14:40:29	19.09	Sample	OK	1
F710214-BLK8	D5	20	4.95	1.45		77718-1.RAW	14:44:37	18.48	Sample	OK	1
1709618-07	D6	20	4.95	482.64		77719-1.RAW	14:48:46	4507.01	Sample	FB	1
1709618-08	D7	20	4.95	1018.10		77720-1.RAW	14:52:54	9501.79	Sample	FB	1
ws			4.95	0.45		77721-1.RAW	15:00:04	89.16	Sample	OK	1
SEQ-CCV7	D8	1	4.95	4.92	98.49	77721-2.RAW	15:04:12	923.68	Sample	OK	1
SEQ-CCB7	D9	1	4.95	0.12	0.00	77723-1.RAW	15:08:21	26.91	Sample	OK	1
1709618-08RE1	D10	50	4.95	1109.39		77724-1.RAW	15:12:29	4144.32	Sample	FB	1
1709618-09	D11	50	4.95	1111.41		77725-1.RAW	15:16:38	4151.86	Sample	FB	1
1709618-10	D12	50	4.95	2968.17		77726-1.RAW	15:20:46	11079.80	Sample	FB	1
1709618-11	A1	50	4.95	1029.25		77727-1.RAW	15:24:55	3845.29	Sample	FB	1
1709618-12	A2	50	4.95	1785.78		77728-1.RAW	15:29:03	6668.06	Sample	FB	1
1709618-13	A3	50	4.95	1618.29		77729-1.RAW	15:33:12	6043.11	Sample	FB	1
1709618-14	A4	50	4.95	2770.30		77730-1.RAW	15:37:20	10341.49	Sample	FB	1
1709618-15	A5	50	4.95	1457.43		77731-1.RAW	15:41:28	5442.92	Sample	FB	1
1709619-01	A6	50	4.95	2031.47		77732-1.RAW	15:45:37	7584.76	Sample	FB	1
1709619-02	A7	50	4.95	1454.21		77733-2.RAW	15:50:12	5430.89	Sample	FB	1
SEQ-CCV8	A8	1	4.95	5.10	102.00	77734-1.RAW	15:54:21	956.44	Sample	OK	1
SEQ-CCB8	A9	1	4.95	0.24	0.00	77735-1.RAW	15:58:29	48.90	Sample	OK	1
1709618-10RE1	A10	400	4.95	3129.38		77736-1.RAW	16:02:38	1464.49	Sample	FB	1
1709618-11RE1	A11	100	4.95	1048.07		77737-1.RAW	16:06:46	1960.23	Sample	OK	1
1709618-14RE1	A12	400	4.95	3221.41		77738-1.RAW	16:10:55	1507.42	Sample	OK	1
1709618-15RE1	B1	100	4.95	1531.23		77739-1.RAW	16:15:03	2861.62	Sample	OK	1
1709619-01RE1	B2	100	4.95	2091.77		77740-1.RAW	16:19:12	3907.35	Sample	FB	1
1709619-02RE1	B3	100	4.95	1454.11		77741-1.RAW	16:23:20	2717.75	Sample	OK	1
SEQ-CCV9	B4	1	4.95	4.96	99.16	77742-1.RAW	16:27:28	929.93	Sample	OK	1
SEQ-CCB9	B5	1	4.95	0.18	0.00	77743-1.RAW	16:31:37	39.07	Sample	OK	1

ANALYSIS SEQUENCE **QUALITY ASSURANCE**

7J16015

PEER-REVIEWED

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *R* *10/16/17*
Analyzed: 10/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J16015-IBL1 ✓	QC	1			
7J16015-IBL2 ✓	QC	2			
7J16015-IBL3 ✓	QC	3			
7J16015-CAL1 ✓	QC	4	1704505		
7J16015-CAL2 ✓	QC	5	1704506		
7J16015-CAL3 ✓	QC	6	1704507		
7J16015-CAL4 ✓	QC	7	1704508		
7J16015-CAL5 ✓	QC	8	1704509		
7J16015-ICV1 ✓	QC	9	1705628		
7J16015-CCV1 ✓	QC	10	1705628		
7J16015-CCB1 ✓	QC	11			
7J16015-CCV2 ✓	QC	12	1705628		
7J16015-CCB2 ✓	QC	13			
7J16015-CCV3 ✓	QC	14	1705628		
7J16015-CCB3 ✓	QC	15			
7J16015-CCV4 ✓	QC	16	1705628		
7J16015-CCB4 ✓	QC	17			
7J16015-CCV5 ✓	QC	18	1705628		
7J16015-CCB5 ✓	QC	19			
7J16015-CCV6 ✓	QC	20	1705628		
7J16015-CCB6 ✓	QC	21			
F710214-BLK6 ✓	QC	22		1001152	<i>R</i> <i>10/16/17</i>
F710214-BLK7 ✓	QC	23			
F710214-BLK8 ✓	QC	24			
1709618-07 ✓	Hg-CVAFS-T-7030	25			
1709618-08 ✓	Hg-CVAFS-T-7030	26			
7J16015-CCV7 ✓	QC	27	1705628		
7J16015-CCB7 ✓	QC	28			
1709618-08RE1 ✓	Hg-CVAFS-T-7030	29			Added 10/16/2017 by BC
1709618-09 ✓	Hg-CVAFS-T-7030	30			
1709618-10 ✓	Hg-CVAFS-T-7030	31			
1709618-11 ✓	Hg-CVAFS-T-7030	32			
1709618-12 ✓	Hg-CVAFS-T-7030	33			
1709618-13 ✓	Hg-CVAFS-T-7030	34			
1709618-14 ✓	Hg-CVAFS-T-7030	35			

ANALYSIS SEQUENCE

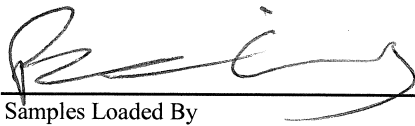
7J16015

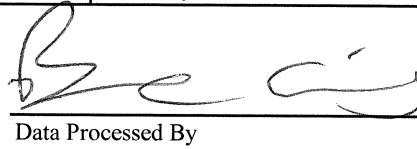
Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709618-15 ✓	Hg-CVAFS-T-7030	36			
1709619-01 ✓	Hg-CVAFS-T-7030	37			
1709619-02 ✓	Hg-CVAFS-T-7030	38			
7J16015-CCV8 ✓	QC	39	1705628	✓	
7J16015-CCB8 ✓	QC	40			
1709618-10RE1 ✓	Hg-CVAFS-T-7030	41			Added 10/16/2017 by BC
1709618-11RE1 ✓	Hg-CVAFS-T-7030	42			Added 10/16/2017 by BC
1709618-14RE1 ✓	Hg-CVAFS-T-7030	43			Added 10/16/2017 by BC
1709618-15RE1 ✓	Hg-CVAFS-T-7030	44			Added 10/16/2017 by BC
1709619-01RE1 ✓	Hg-CVAFS-T-7030	45			Added 10/16/2017 by BC
1709619-02RE1 ✓	Hg-CVAFS-T-7030	46			Added 10/16/2017 by BC
7J16015-CCV9 ✓	QC	47	1705628	✓	
7J16015-CCB9 ✓	QC	48			


10/16/17
 Samples Loaded By _____ Date


10/16/17
 Data Processed By _____ Date

1022
 10/13/17

PREPARATION BENCH SHEET

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710214-BLK1	Blank	0.25	20					
F710214-BLK2	Blank	0.25	20					
F710214-BLK3	Blank	0.25	20					
F710214-BLK4	Blank	0.276	20					Pre-homogenization Blanks for 1709617-1709618
F710214-BLK5	Blank	0.263	20					Pre-homogenization Blanks for 1709617-1709618
F710214-BLK6	Blank	0.5	40					
F710214-BLK7	Blank	0.5	40					
F710214-BLK8	Blank	0.5	40					
F710214-BS1	LCS	0.25	20	1704421	20			
F710214-BS2	DORM4	0.1268	20	1705412	126.8			
F710214-BSD1	LCS Dup	0.25	20	1704421	20			
F710214-DUP1	Duplicate [1709618-01]	0.253	20					
F710214-MS1	Matrix Spike [1709618-01]	0.263	20	1705554	100			
F710214-MS2	Matrix Spike [1709618-02]	0.262	20	1705554	100			
F710214-MSD1	Matrix Spike Dup [1709618-01]	0.26	20	1705554	100			
F710214-MSD2	Matrix Spike Dup [1709618-02]	0.279	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709618-01	OB-01_17MT001_091817_MUM_01_WB	0.275	20	QC	-	-	MS/MSD	
1709618-02	OB-01_17MT002_091817_MUM_02_WB	0.276	20	-	-	-		
1709618-03	OB-01_17MT002_091817_MUM_03_WB	0.254	20	-	-	-		
1709618-04	OB-01_17MT002_091817_MUM_04_WB	0.269	20	-	-	-		
1709618-05	OB-01_17MT002_091817_MUM_05_WB	0.257	20	-	-	-		
1709618-06	OB-01_17MT002_091817_MUM_06_WB	0.281	20	-	-	-		
1709618-07	OB-01_17MT002_091817_MUM_07_WB	0.257	20	-	-	-		
1709618-08	OB-01_17MT002_091817_MUM_08_WB	0.254	20	-	-	-		
1709618-08RE1	OB-01_17MT002_091817_MUM_08_WB	0.254	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-09	OB-01_17MT001_091917_MUM_09_WB	0.279	20	-	-	-		
1709618-10	OB-01_17MT001_091917_MUM_10_WB	0.258	20	-	-	-		
1709618-10RE1	OB-01_17MT001_091917_MUM_10_WB	0.258	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-11	OB-01_17MT001_091917_MUM_11_WB	0.251	20	-	-	-		
1709618-11RE1	OB-01_17MT001_091917_MUM_11_WB	0.251	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-12	OB-01_17MT001_091917_MUM_12_WB	0.274	20	-	-	-		
1709618-13	OB-01_17MT001_091917_MUM_13_WB	0.255	20	-	-	-		
1709618-14	OB-01_17MT002_091917_MUM_14_WB	0.272	20	-	-	-		
1709618-14RE1	OB-01_17MT002_091917_MUM_14_WB	0.272	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-15	OB-01_17MT002_091917_MUM_15_WB	0.259	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710214

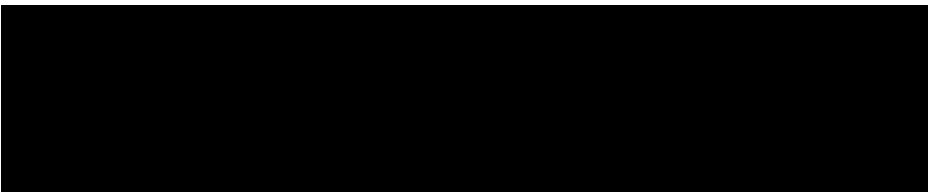
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709618-15RE1	OB-01_17MT002_091917_MUM_15_WB	0.259	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709619-01	OB-05_17SN001_091517_MUM_01_WB	0.278	20	-	-	-		
1709619-01RE1	OB-05_17SN001_091517_MUM_01_WB	0.278	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709619-02	OB-05_17SN001_091517_MUM_02_WB	0.255	20	-	-	-		
1709619-02RE1	OB-05_17SN001_091517_MUM_02_WB	0.255	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709619-03	OB-05_17SN001_091517_MUM_03_WB	0.282	20	-	-	-		
1709619-04	OB-05_17SN001_091517_MUM_04_WB	0.265	20	-	-	-		
1709619-05	OB-05_17SN001_091517_MUM_05_WB	0.275	20	-	-	-		



2600-3
BC 10/13/17

PREPARATION BENCH SHEET

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710214-BLK1	Blank	0.25	20					
F710214-BLK2	Blank	0.25	20					
F710214-BLK3	Blank	0.25	20					
F710214-BLK4	Blank	0.276	20					Pre-homogenization Blanks for 1709617-1709618
F710214-BLK5	Blank	0.263	20					Pre-homogenization Blanks for 1709617-1709618
F710214-BLK6	Blank <i>R 10/16/17</i>	<i>0.25</i>	<i>40</i>					<i>20X</i>
F710214-BLK7	Blank	<i>0.5</i>	<i>40</i>					<i>20X</i>
F710214-BLK8	Blank	<i>0.5</i>	<i>40</i>					<i>20X</i>
F710214-BS1	LCS	0.25	20	1704421	20			
F710214-BS2	DORM4	0.1268	20	1705412	126.8			
F710214-BSD1	LCS Dup	0.25	20	1704421	20			
F710214-DUP1	Duplicate [1709618-01]	0.253	20					
F710214-MS1	Matrix Spike [1709618-01]	0.263	20	1705554	100			
F710214-MS2	Matrix Spike [1709618-02]	0.262	20	1705554	100			
F710214-MSD1	Matrix Spike Dup [1709618-01]	0.26	20	1705554	100			
F710214-MSD2	Matrix Spike Dup [1709618-02]	0.279	20	1705554	100			

Standard ID(s): Description: Expiration:
 1704421 THg 100ng/mL Primary Spiking Standard 21-Oct-17 00:00
 1705412 DORM-4 06-Jan-20 00:00
 1705554 THg 1,000ng/mL Secondary Spiking Standard / 18-Mar-18 00:00

Reagent ID(s): Description: Expiration:
 1702551 Boiling Chips for AFS prep 31-Dec-17 00:00
 1705859 70/30 Digestion Acid 28-Mar-18 00:00
 1705915 5% BrCl 14-Mar-18 00:00

20X = 2.5ul
50X = 1ul
400X = 125ul
100X = 500ul

1705610
1705611
1705961
1703192

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2000-3
8010/13/17

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709618-01	OB-0i_17MT001_091817_MUM_01_WB	0.275	20	QC	-	-	MS/MSD 20x	
1709618-02	OB-01_17MT002_091817_MUM_02_WB	0.276	20	-	-	-		
1709618-03	OB-01_17MT002_091817_MUM_03_WB	0.254	20	-	-	-		
1709618-04	OB-01_17MT002_091817_MUM_04_WB	0.269	20	-	-	-		
1709618-05	OB-01_17MT002_091817_MUM_05_WB	0.257	20	-	-	-		
1709618-06	OB-01_17MT002_091817_MUM_06_WB	0.281	20	-	-	-		
1709618-07	OB-01_17MT002_091817_MUM_07_WB	0.257	20	-	-	-	20x	
1709618-08	OB-01_17MT002_091817_MUM_08_WB	0.254	20	-	-	-	20x → 50x	
1709618-09	OB-01_17MT001_091917_MUM_09_WB	0.279	20	-	-	-	50x	
1709618-10	OB-01_17MT001_091917_MUM_10_WB	0.258	20	-	-	-	50x → 400x	
1709618-11	OB-01_17MT001_091917_MUM_11_WB	0.251	20	-	-	-	50x → 100x 50x	
1709618-12	OB-01_17MT001_091917_MUM_12_WB	0.274	20	-	-	-	50x	
1709618-13	OB-01_17MT001_091917_MUM_13_WB	0.255	20	-	-	-	50x	
1709618-14	OB-01_17MT002_091917_MUM_14_WB	0.272	20	-	-	-	50x → 400x	
1709618-15	OB-01_17MT002_091917_MUM_15_WB	0.259	20	-	-	-	50x → 100x 50x	
1709619-01	OB-05_17SN001_091517_MUM_01_WB	0.278	20	-	-	-	50x → 100x	
1709619-02	OB-05_17SN001_091517_MUM_02_WB	0.255	20	-	-	-	50x → 100x 50x	
1709619-03	OB-05_17SN001_091517_MUM_03_WB	0.282	20	-	-	-		
1709619-04	OB-05_17SN001_091517_MUM_04_WB	0.265	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-3

BC/10/13/17

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709619-05	OB-05_17SN001_091517_MUM_05_WB	0.275	20	-	-	-		
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Failing Data Report - 7J16015

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1709618-08	Hg-CVAFS-T-7030	80.0	0.787				ng/g						FAIL-OVER	PASS	F
1709618-10	Hg-CVAFS-T-7030	230	1.94				ng/g						FAIL-OVER	PASS	E
1709618-14	Hg-CVAFS-T-7030	204	1.84				ng/g						FAIL-OVER	PASS	F
1709619-01	Hg-CVAFS-T-7030	146	1.80				ng/g						FAIL-OVER	PASS	F

Beck 10/16/17
 Analyst Reviewed By Date

PM 10/16/17
 Peer Reviewed By Date

7J16014

PEER-REVIEWED

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: R 10/16/17 Analyzed: 10/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J16014-IBL1 ✓	QC	1			
7J16014-IBL2 ✓	QC	2			
7J16014-IBL3 ✓	QC	3			
7J16014-CAL1 ✓	QC	4	1704505 ✓		
7J16014-CAL2 ✓	QC	5	1704506 ✓		
7J16014-CAL3 ✓	QC	6	1704507 ✓		
7J16014-CAL4 ✓	QC	7	1704508 ✓		
7J16014-CAL5 ✓	QC	8	1704509 ✓		
7J16014-ICV1 ✓	QC	9	1705628 ✓		
F710305-BLK1 ✓	QC	10			
F710305-BLK2 ✓	QC	11			
F710305-BS1 ✓	QC	12			
F710305-BSD1 ✓	QC	13			
1709571-04 ✓	Hg-CVAFS-S-7474	14			
1709571-05 ✓	Hg-CVAFS-S-7474	15			
1709571-06 ✓	Hg-CVAFS-S-7474	16			
1709571-07 ✓	Hg-CVAFS-S-7474	17			
1709572-01 ✓	Hg-CVAFS-S-7474	18			
1709572-02 ✓	Hg-CVAFS-S-7474	19			
7J16014-CCV1 ✓	QC	20	1705628 ✓		
7J16014-CCB1 ✓	QC	21			
1709572-03 ✓	Hg-CVAFS-S-7474	22			
1709572-04 ✓	Hg-CVAFS-S-7474	23			
1709572-05 ✓	Hg-CVAFS-S-7474	24			
1709572-06 ✓	Hg-CVAFS-S-7474	25			
1709572-07 ✓	Hg-CVAFS-S-7474	26			
1709572-08 ✓	Hg-CVAFS-S-7474	27			
1709572-09 ✓	Hg-CVAFS-S-7474	28			
1709572-10 ✓	Hg-CVAFS-S-7474	29			
1709572-11 ✓	Hg-CVAFS-S-7474	30			
1709572-12 ✓	Hg-CVAFS-S-7474	31			
7J16014-CCV2 ✓	QC	32	1705628 ✓		
7J16014-CCB2 ✓	QC	33			
1709572-13 ✓	Hg-CVAFS-S-7474	34			
1709572-14 ✓	Hg-CVAFS-S-7474	35			

ANALYSIS SEQUENCE

7J16014

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709572-15 ✓	Hg-CVAFS-S-7474	36			
1709574-01 ✓	Hg-CVAFS-S-7474	37			
1709572-01RE1 ✓	Hg-CVAFS-S-7474	38			Sample is mostly rock. BEF 10/11/17
1709572-02RE1 ✓	Hg-CVAFS-S-7474	39			Sample is mostly rock. BEF 10/11/17
F710305-MS1 ✓	QC	40			
F710305-MSD1 ✓	QC	41			
F710305-MS2 ✓	QC	42			
F710305-MSD2 ✓	QC	43			
7J16014-CCV3 ✓	QC	44	1705628	✓	
7J16014-CCB3 ✓	QC	45			
F710306-BLK1 ✓	QC	46			
F710306-BLK2 ✓	QC	47			
F710306-BS1 ✓	QC	48			
F710306-BSD1 ✓	QC	49			
1709574-02 ✓	Hg-CVAFS-S-7474	50			
1709574-03 ✓	Hg-CVAFS-S-7474	51			
1709574-04 ✓	Hg-CVAFS-S-7474	52			
1709574-05 ✓	Hg-CVAFS-S-7474	53			
1709574-06 ✓	Hg-CVAFS-S-7474	54			
1709574-07 ✓	Hg-CVAFS-S-7474	55			
7J16014-CCV4 ✓	QC	56	1705628	✓	
7J16014-CCB4 ✓	QC	57			
1709574-08 ✓	Hg-CVAFS-S-7474	58			
1709574-09 ✓	Hg-CVAFS-S-7474	59			
1709574-10 ✓	Hg-CVAFS-S-7474	60			
1709574-11 ✓	Hg-CVAFS-S-7474	61			
1709574-12 ✓	Hg-CVAFS-S-7474	62			
1709574-13 ✓	Hg-CVAFS-S-7474	63			
1709574-14 ✓	Hg-CVAFS-S-7474	64			
1709574-15 ✓	Hg-CVAFS-S-7474	65			
1709575-01 ✓	Hg-CVAFS-S-7474	66			
1709575-02 ✓	Hg-CVAFS-S-7474	67			
7J16014-CCV5 ✓	QC	68	1705628	✓	
7J16014-CCB5 ✓	QC	69			
1709575-03 ✓	Hg-CVAFS-S-7474	70			

PREPARATION BENCH SHEET

F710305

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/11/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710305-BLK1	Blank	0.5	200					
F710305-BLK2	Blank	0.5	200					
F710305-BS1	LCS	0.5	200	1705554	40			
F710305-BSD1	LCS Dup	0.5	200	1705554	40			
F710305-MS1	Matrix Spike [1709572-01] <i>RM</i>	0.584	200	1705286	50			
F710305-MS2	Matrix Spike [1709572-02] <i>RM</i>	0.5157	200	1705286	50			
F710305-MSD1	Matrix Spike Dup [1709572-01] <i>RM</i>	0.5569	200	1705286	50			
F710305-MSD2	Matrix Spike Dup [1709572-02] <i>RM</i>	0.5172	200	1705286	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<i>R 10/16/17</i>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705286	THg 10,000ng/mL Primary Spiking Standard		30-Nov-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard		18-Mar-18 00:00	1705287	Omnitrace Hydrochloric Acid	30-Aug-20 00:00
				1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
				1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
				1705679	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
				1705900	7474 Potassium Bromate/Bromide Reagent	11-Oct-17 00:00
				1705961	3% SnCl2 THg reductant	25-Mar-18 00:00

PREPARATION BENCH SHEET

F710305

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/11/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709571-04	MM-T1-C3-B-17_SED_055-060CM	0.529	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709571-05	MM-T1-C3-B-17_SED_060-065CM	0.5071	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709571-06	MM-T1-C3-B-17_SED_065-070CM	0.558	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709571-07	MM-T1-C3-B-17_SED_070-075CM	0.5287	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-01	MM-T1-C3-B-17_SED_015-016CM	0.5207	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-01RE1	MM-T1-C3-B-17_SED_015-016CM	0.5207	200	-	-	-	Sample is mostly rock. BEF 10/11/17	Sample is mostly rock. BEF 10/11/17
1709572-02	MM-T1-C3-B-17_SED_016-017CM	0.5087	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-02RE1	MM-T1-C3-B-17_SED_016-017CM	0.5087	200	-	-	-	Sample is mostly rock. BEF 10/11/17	Sample is mostly rock. BEF 10/11/17
1709572-03	MM-T1-C3-B-17_SED_017-018CM	0.5208	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-04	MM-T1-C3-B-17_SED_018-019CM	0.5089	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-05	MM-T1-C3-B-17_SED_019-020CM	0.5336	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-06	MM-T1-C3-B-17_SED_020-022CM	0.5343	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-07	MM-T1-C3-B-17_SED_022-024CM	0.5037	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-08	MM-T1-C3-B-17_SED_024-026CM	0.5011	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-09	MM-T1-C3-B-17_SED_026-028CM	0.5325	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-10	MM-T1-C3-B-17_SED_028-030CM	0.5479	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-11	MM-T1-C3-B-17_SED_030-032CM	0.5264	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-12	MM-T1-C3-B-17_SED_032-034CM	0.5321	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-13	MM-T1-C3-B-17_SED_034-036CM	0.512	200	-	-	-		Sample is mostly rock. BEF 10/11/17

Due Date: 10/19/2017

PREPARATION BENCH SHEET

F710305

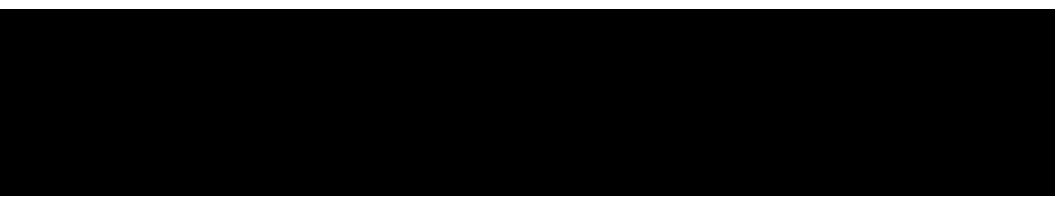
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/11/2017

1709572-14	MM-T1-C3-B-17_SED_036-038CM	0.5168	200	-	-	-	Sample is mostly rock. BEF 10/11/17
1709572-15	MM-T1-C3-B-17_SED_038-040CM	0.5107	200	-	-	-	Sample is mostly rock. BEF 10/11/17
1709574-01	MM-T1-C3-B-17_SED_000-001CM	0.5022	200	-	-	-	



PREPARATION BENCH SHEET

2600-3
Bx 10/13/17

F710305

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/11/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710305-BLK1	Blank	0.5	200					10x -
F710305-BLK2	Blank	0.5	200					10x -
F710305-BS1	LCS	0.5	200	1705554	40			10x -
F710305-BSD1	LCS Dup	0.5	200	1705554	40			10x -
F710305-MS1	Matrix Spike [1709572-01]	0.584	200	1705286	50			10x 400x -
F710305-MS2	Matrix Spike [1709572-02]	0.5157	200	1705286	50			400x -
F710305-MSD1	Matrix Spike Dup [1709572-01]	0.5569	200	1705286	50			400x -
F710305-MSD2	Matrix Spike Dup [1709572-02]	0.5172	200	1705286	50			400x -

Standard ID(s):
1705286 THg 10,000ng/mL Primary Spiking Standard
1705554 THg 1,000ng/mL Secondary Spiking Standard

Expiration:
30-Nov-17 00:00
18-Mar-18 00:00

Reagent ID(s):
1705287 Omnitrace Hydrochloric Acid
1705679 Fisher Nitric Acid, Tracemetal Grade
1705900 7474 Potassium Bromate/Bromide Reagent

Description:
Omnitrace Hydrochloric Acid
Fisher Nitric Acid, Tracemetal Grade
7474 Potassium Bromate/Bromide Reagent

Expiration:
30-Aug-20 00:00
15-Mar-19 00:00
11-Oct-17 00:00

10x = 5ml
400x = 125
50x = 1ml

1705610
1705611
1705961
1703192

2600-3
BC 10/13/17

PREPARATION BENCH SHEET

F710305

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/11/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709571-04	MM-T1-C3-B-17_SED_055-060CM	0.529	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709571-05	MM-T1-C3-B-17_SED_060-065CM	0.5071	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709571-06	MM-T1-C3-B-17_SED_065-070CM	0.558	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709571-07	MM-T1-C3-B-17_SED_070-075CM	0.5287	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-01	MM-T1-C3-B-17_SED_015-016CM	0.5207	200	-	-	-	50X → 10X -	Sample is mostly rock. BEF 10/11/17
1709572-02	MM-T1-C3-B-17_SED_016-017CM	0.5087	200	-	-	-	50X → 10X -	Sample is mostly rock. BEF 10/11/17
1709572-03	MM-T1-C3-B-17_SED_017-018CM	0.5208	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-04	MM-T1-C3-B-17_SED_018-019CM	0.5089	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-05	MM-T1-C3-B-17_SED_019-020CM	0.5336	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-06	MM-T1-C3-B-17_SED_020-022CM	0.5343	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-07	MM-T1-C3-B-17_SED_022-024CM	0.5037	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-08	MM-T1-C3-B-17_SED_024-026CM	0.5011	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-09	MM-T1-C3-B-17_SED_026-028CM	0.5325	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-10	MM-T1-C3-B-17_SED_028-030CM	0.5479	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-11	MM-T1-C3-B-17_SED_030-032CM	0.5264	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-12	MM-T1-C3-B-17_SED_032-034CM	0.5321	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-13	MM-T1-C3-B-17_SED_034-036CM	0.512	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-14	MM-T1-C3-B-17_SED_036-038CM	0.5168	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-15	MM-T1-C3-B-17_SED_038-040CM	0.5107	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17

Due Date: 10/19/2017

PREPARATION BENCH SHEET

2600-3
BC 10/13/17

F710305

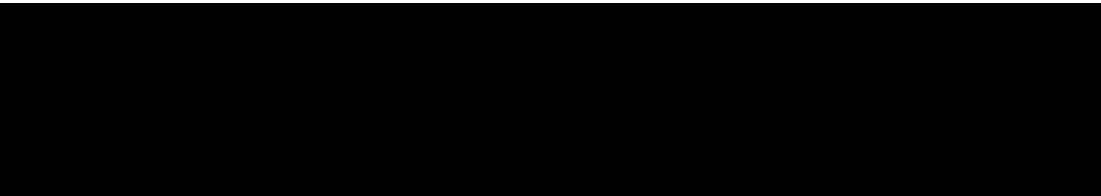
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/11/2017

1709574-01	MM-T1-C3-B-17_SED_000-001CM	0.5022	200	-	-	-	100x /	
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Technician: RS Batch#: F710305 Date: 10/11/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: 7474
 Balance#: 15 Calibrated? Yes No Therm.#: NA Vial Type: Glass Teflon
 Calibrated? Yes No
 *Time in: NA Actual Temp. (raw): NA °C w/ CF: NA °C
 Time out: NA Actual Temp. (raw): NA °C w/ CF: NA °C
 *Time in can't begin before target temperature is reached

Final vol.: 25 mL (LIMS ID: 1705280) Spike vol.: 40 µL (LIMS ID: 1705554)
 Spike Witness: AMB 10-11-17 (initial and date)

HCl LIMS ID: 1705287 Pipette SN#: 0007693 Calibration Date: 10/19/17
 HNO₃ LIMS ID: 1705679 Pipette SN#: 0007853 Calibration Date: 10/19/17
 70/30 LIMS ID: NA Dispenser #: 09N43351 Calibrated? Yes No
 Other Acid, LIMS ID: 1705900 Dispenser #: 12H07691 Yes
 Glass Vial # 279595-540 Boiling Chip lot # 170424 *Hotblock Position: NA

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F710305-BIK1	0.5028	238	1709572-11A*	0.5264	Comments F710305 on w/ spike 1705286. or vials *Sample is mostly rock or vials RS vials
2	F710305-BIK2	0.5346	249	1709572-120*	0.5321	
3	F710305-B51	0.5450	250	1709572-13A*	0.5120	
4	F710305-B501	0.5693	264	1709572-14A*	0.5128	
5	1709571-04A*	0.5290	2712	1709572-15A*	0.5107	
6	1709571-05A*	0.5071	2813	1709574-01A	0.5022	
7	1709571-06A*	0.5580	29			
8	1709571-07A*	0.5287	30			
9	1709572-01A*	0.5207	31			
10	1709572-01A581	0.5840	32			
11	1709572-01A5801	0.5569	33			
12	1709572-02A*	0.5087	34			
13	1709572-02A582	0.5157	35			
14	1709572-02A5802	0.5172	36			
15	1709572-03A*	0.5208	37			
16	1709572-04A*	0.5089	38			
17	1709572-05A*	0.5336	39			
18	1709572-06A*	0.5340	40			
19	1709572-07A*	0.5037	41			
20	1709572-08A*	0.5011	42			
21	1709572-09A*	0.5325	43			
22	1709572-10A*	0.5479	44			

PREPARATION BENCH SHEET

F710306

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710306-BLK1	Blank	0.5	200					
F710306-BLK2	Blank	0.5	200					
F710306-BS1	Blank Spike	0.5	200	1705554	40			
F710306-BSD1	Blank Spike	0.5	200	1705554	40			
F710306-MS1	Matrix Spike [1709574-08]	0.5617	200	1705286	50			
F710306-MS2	Matrix Spike [1709575-01]	0.5855	200	1705286	50			
F710306-MSD1	Matrix Spike Dup [1709574-08]	0.5687	200	1705286	50			
F710306-MSD2	Matrix Spike Dup [1709575-01]	0.5427	200	1705286	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705286	THg 10,000ng/mL Primary Spiking Standard	30-Nov-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705679	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1705723	Omnitrace Hydrochloric Acid	22-Sep-20 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00
			1706063	7474 Potassium Bromate/Bromide Reagent	19-Oct-17 00:00

PREPARATION BENCH SHEET

F710306

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709574-02	MM-T1-C3-B-17_SED_001-002CM	0.5553	200	-	-	-		
1709574-03	MM-T1-C3-B-17_SED_002-003CM	0.5447	200	-	-	-		
1709574-04	MM-T1-C3-B-17_SED_003-004CM	0.5607	200	-	-	-		
1709574-05	MM-T1-C3-B-17_SED_004-005CM	0.5595	200	-	-	-		
1709574-06	MM-T1-C3-B-17_SED_005-006CM	0.5363	200	-	-	-		
1709574-07	MM-T1-C3-B-17_SED_006-007CM	0.5356	200	-	-	-		
1709574-08	MM-T1-C3-B-17_SED_007-008CM	0.569	200	-	-	-		
1709574-09	MM-T1-C3-B-17_SED_008-009CM	0.5498	200	-	-	-		
1709574-10	MM-T1-C3-B-17_SED_009-010CM	0.5795	200	-	-	-		
1709574-10RE1	MM-T1-C3-B-17_SED_009-010CM	0.5795	200	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709574-11	MM-T1-C3-B-17_SED_010-011CM	0.5934	200	-	-	-		
1709574-11RE1	MM-T1-C3-B-17_SED_010-011CM	0.5934	200	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709574-12	MM-T1-C3-B-17_SED_011-012CM	0.5378	200	-	-	-		
1709574-12RE1	MM-T1-C3-B-17_SED_011-012CM	0.5378	200	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709574-13	MM-T1-C3-B-17_SED_012-013CM	0.5569	200	-	-	-		
1709574-13RE1	MM-T1-C3-B-17_SED_012-013CM	0.5569	200	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709574-14	MM-T1-C3-B-17_SED_013-014CM	0.5435	200	-	-	-		
1709574-14RE1	MM-T1-C3-B-17_SED_013-014CM	0.5435	200	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709574-15	MM-T1-C3-B-17_SED_014-015CM	0.557	200	-	-	-		

Due Date: 10/19/2017

PREPARATION BENCH SHEET

F710306

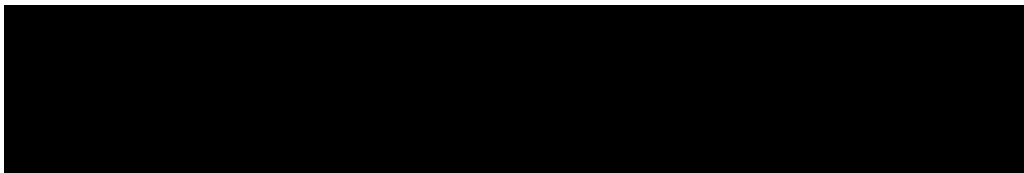
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

1709574-15RE1	MM-T1-C3-B-17_SED_014-015CM	0.557	200	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709575-01	FF-06-01-A-17_SED_00-01	0.531	200	-	-	-		
1709575-02	FF-06-01-A-17_SED_01-03	0.5736	200	-	-	-		
1709575-03	FF-06-01-A-17_SED_03-05	0.5793	200	-	-	-		
1709575-04	FF-06-01-A-17_SED_05-07	0.5338	200	-	-	-		
1709575-05	FF-06-01-A-17_SED_07-10	0.5724	200	-	-	-		
1709575-06	FF-06-01-A-17_SED_10-15	0.5505	200	-	-	-		



PREPARATION BENCH SHEET

F710306

Eurofins Frontier Global Sciences, Inc.

2600-3

BL 10/13/17

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710306-BLK1	Blank	0.5	200					10X
F710306-BLK2	Blank	0.5	200					10X
F710306-BS1	Blank Spike	0.5	200	1705554	40			10X
F710306-BSD1	Blank Spike	0.5	200	1705554	40			10X
F710306-MS1	Matrix Spike [1709574-08]	0.5617	200	1705286	50			400X
F710306-MS2	Matrix Spike [1709575-01]	0.5855	200	1705286	50			400X
F710306-MSD1	Matrix Spike Dup [1709574-08]	0.5687	200	1705286	50			400X
F710306-MSD2	Matrix Spike Dup [1709575-01]	0.5427	200	1705286	50			400X

Standard ID(s):
 1705286 THg 10,000ng/mL Primary Spiking Standard
 1705554 THg 1,000ng/mL Secondary Spiking Standard

Expiration:
 30-Nov-17 00:00
 18-Mar-18 00:00

Reagent ID(s):
 1704424 Boiling Chips for AFS prep
 1705679 Fisher Nitric Acid, Tracemetal Grade
 1705723 Omnitrace Hydrochloric Acid
 1706063 7474 Potassium Bromate/Bromide Reagent

Expiration:
 21-Jan-18 00:00
 15-Mar-19 00:00
 22-Sep-20 00:00
 19-Oct-17 00:00

10X = 5mL
 400X = 125µL
 1000X = 500µL
 50X = 1µL

16057 1705610
 1705611
 1705961
 1705102

Due Date: 10/19/2017

PREPARATION BENCH SHEET

2600-3
 BC 10/13/17

F710306

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709574-02	MM-T1-C3-B-17_SED_001-002CM	0.5553	200	-	-	-	100x ✓	
1709574-03	MM-T1-C3-B-17_SED_002-003CM	0.5447	200	-	-	-	100x ✓	
1709574-04	MM-T1-C3-B-17_SED_003-004CM	0.5607	200	-	-	-	100x ✓	
1709574-05	MM-T1-C3-B-17_SED_004-005CM	0.5595	200	-	-	-	100x ✓	
1709574-06	MM-T1-C3-B-17_SED_005-006CM	0.5363	200	-	-	-	100x ✓	
1709574-07	MM-T1-C3-B-17_SED_006-007CM	0.5356	200	-	-	-	100x ✓	
1709574-08	MM-T1-C3-B-17_SED_007-008CM	0.569	200	-	-	-	100x ✓	
1709574-09	MM-T1-C3-B-17_SED_008-009CM	0.5498	200	-	-	-	100x ✓	
1709574-10	MM-T1-C3-B-17_SED_009-010CM	0.5795	200	-	-	-	100x → 10x ✓	
1709574-11	MM-T1-C3-B-17_SED_010-011CM	0.5934	200	-	-	-	100x → 10x ✓	
1709574-12	MM-T1-C3-B-17_SED_011-012CM	0.5378	200	-	-	-	100x → 10x ✓	
1709574-13	MM-T1-C3-B-17_SED_012-013CM	0.5569	200	-	-	-	50x → 10x ✓	
1709574-14	MM-T1-C3-B-17_SED_013-014CM	0.5435	200	-	-	-	50x → 10x ✓	
1709574-15	MM-T1-C3-B-17_SED_014-015CM	0.557	200	-	-	-	50x → 10x ✓	
1709575-01	FF-06-01-A-17_SED_00-01	0.531	200	-	-	-	50x ✓	
1709575-02	FF-06-01-A-17_SED_01-03	0.5736	200	-	-	-	50x ✓	
1709575-03	FF-06-01-A-17_SED_03-05	0.5793	200	-	-	-	100x ✓	
1709575-04	FF-06-01-A-17_SED_05-07	0.5338	200	-	-	-	100x ✓	
1709575-05	FF-06-01-A-17_SED_07-10	0.5724	200	-	-	-	100x ✓	

Due Date: 10/19/2017

PREPARATION BENCH SHEET

2600-3
Bx 10/13/17

F710306

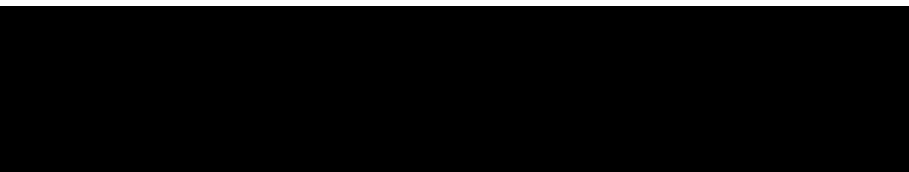
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

1709575-06	FF-06-01-A-17_SED_10-15	0.5505	200	-	-	-	100%	
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Technician: Duyen Batch#: F710306 Date: 10/12/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA 7474
 Balance#: 19 Calibrated? Yes No Therm.#: N/A Vial Type: Glass Teflon
 Calibrated? Yes No
 *Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 *Time in can't begin before target temperature is reached

Final vol.: 25 mL (LIMS ID: R0H20) Spike vol.: 40 µL (LIMS ID: 1705554)
 Spike Witness: PL 10/12/17 (initial and date)

HCl LIMS ID: 1705722 Pipette SN#: 0607852 Calibration Date: 10-09-17
 HNO₃ LIMS ID: 1705679 Pipette SN#: 0607693 Calibration Date: 10-9-17
 70/30 LIMS ID: N/A Dispenser #: 09W45351 Calibrated? Yes No
 Other Acid LIMS ID: 1706063 Dispenser #: 12407691 Yes
 Glass Vial # J264713-3025 Boiling Chip lot # 1704424 *Hotblock Position: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial # <u>10/12/17</u>	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F710306 blk1	0.5154	2308	F710306-MS02	0.5427	
2	F710306 blk2	0.5338	2409	1709575-02A	0.5736	
3	F710306 BSI	0.5774	2510	1709575-03A	0.5793	
4	F710306 BSI	0.5731	2611	1709575-04A	0.5338	Comments
5	1709574-02A	0.5553	2712	170957505A	0.5724	F710306
6	1709574-03A	0.5447	28	10/12/17 06A	0.54	source
7	1709574-04A	0.5607	2913	170957506A	0.5505	MS1 MS01
8	1709574-05A	0.5595	30			170957408
9	1709574-06A	0.5363	31			
10	1709574-07A	0.5356	32			F710306
11	170957408A	0.5690	33			MS2 MS02
12	F710306 MS1	0.5617	34			170957501
13	F710306 MS01	0.5687	35			F710306
14	1709574-09A	0.5498	36			ALL spike
15	1709574-10A	0.5795	37			MS1 MS01 MS2 MS2
16	1709574-11A	0.5934	38			= soul
17	1709574-12A	0.5378	39			10,000 µL
18	1709574-13A	0.5569	40			1705286
19	1709574-14A	0.5435	41			10/12/17
20	1709574-15A	0.5570	42			
21	1709575-01A	0.5310	43			
22	F710306-MS2	0.5855	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J16014, 7J16015
Reviewer: 0 <i>R 10/16/17</i>	Dataset ID(s): THg26003-171013-1
Date: 10/16/2017	WO (s) #: various
Batch #(s): F710305, F710306, F710214	0

Analyst Initials *R* **Reviewer Initials** *R 10/16/17*

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: <u>OFF CURVE SAMPLES</u> | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J16014, 7J16015
Reviewer: 0 <i>RL 10/16/17</i>	Dataset ID(s): THg26003-171013-1
Date: 10/16/2017	WO (s) #: various
Batch #(s): F710305, F710306, F710214	0

Analyst Initials BC **Reviewer Initials** RL 10/16/17

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/27/2017 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 7/28/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 7/28/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

THg26002-171013-1



Frontier Global Sciences

Analysis Datasheet for Total Mercury

Date of Analysis: October 13, 2017
 Instrument #: Hg2600-2
 LIMS Sequence #: 7J16021, 7J16020, 7J16019

Analyst: BC
 Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	97.93 units	195.86	87.43 units	174.87	99.1 %Rec
SEQ-CAL2	1	1.00 ng/L	200.34 units	200.34	189.84 units	189.84	107.6 %Rec
SEQ-CAL3	1	5.00 ng/L	878.51 units	175.70	868.01 units	173.60	98.4 %Rec
SEQ-CAL4	1	20.00 ng/L	3487.60 units	174.38	3477.11 units	173.86	98.6 %Rec
SEQ-CAL5	1	40.00 ng/L	6803.73 units	170.09	6793.23 units	169.83	96.3 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF 176.40 Corr. St Dev RF +/- 7.75 Corr. RSD CF 4.4% RSD Uncorr. Mean RF 183.27

QUALITY ASSURANCE
 PEER-REVIEWED

INITIALS: DMW 10.10.17

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	10.50 units	±3.15	0.06 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	2	0.855 ng/L	±0.559
BLK	2	3	0.000 ng/L	±0.035
BLK	3	1	-0.009 ng/L	
BLK	4	1	0.255 ng/L	
BLK	5	3	1.600 ng/L	±0.562
BLK	6	0	0.000 ng/L	

Instrument	Sample			Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
	Analyst	Type	LabNumber												
Hg2600-2	BC	CAL	SEQ-IBL1	1	10/13/2017 8:29:09	87227-1.RAW	8:29:09	11.75			1.3	0.007	0.007	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	10/13/2017 8:33:17	87228-1.RAW	8:33:17	12.83			2.3	0.013	0.013	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	10/13/2017 8:37:26	87229-1.RAW	8:37:26	6.91			-3.6	-0.020	-0.020	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	10/13/2017 8:41:34	87230-1.RAW	8:41:34	97.93			87.4	0.496	0.496	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	10/13/2017 8:45:43	87231-1.RAW	8:45:43	200.34			189.8	1.076	1.076	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	10/13/2017 8:49:51	87232-1.RAW	8:49:51	878.51			868.0	4.921	4.921	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	10/13/2017 8:54:00	87233-1.RAW	8:54:00	3487.60			3477.1	19.712	19.712	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	10/13/2017 8:58:08	87234-1.RAW	8:58:08	6803.73			6793.2	38.511	38.511	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	10/13/2017 9:02:16	87235-1.RAW	9:02:16	887.55			877.0	4.972	4.972	ng/L	
Hg2600-2	BC	BLK	F710324-BLK1	10	10/13/2017 9:06:25	87236-1.RAW	9:06:25	32.56	1		22.1	0.125	1.251	ng/L	
Hg2600-2	BC	BLK	F710324-BLK2	10	10/13/2017 9:10:33	87237-1.RAW	9:10:33	18.61	1		8.1	0.046	0.460	ng/L	
Hg2600-2	BC	SAM	F710324-BS1	10	10/13/2017 9:14:42	87238-1.RAW	9:14:42	3425.61	1		3415.1	19.275	192.746	ng/L	
Hg2600-2	BC	SAM	F710324-BSD1	10	10/13/2017 9:18:50	87239-1.RAW	9:18:50	3577.90	1		3567.4	20.138	201.379	ng/L	
Hg2600-2	BC	SAM	1709566-14RE1	10	10/13/2017 9:22:59	87240-1.RAW	9:22:59	1302.97	1		1292.5	7.241	72.414	ng/L	
Hg2600-2	BC	SAM	1709566-15RE1	10	10/13/2017 9:27:07	87241-1.RAW	9:27:07	951.28	1		940.8	5.248	52.477	ng/L	
Hg2600-2	BC	SAM	1709567-01RE2	100	10/13/2017 9:31:15	87242-1.RAW	9:31:15	993.29	1		982.8	5.563	556.286	ng/L	
Hg2600-2	BC	SAM	1709567-02RE1	100	10/13/2017 9:35:24	87243-1.RAW	9:35:24	759.13	1		748.6	4.235	423.540	ng/L	
Hg2600-2	BC	SAM	1709567-03RE1	100	10/13/2017 9:39:32	87244-1.RAW	9:39:32	894.65	1		884.2	5.004	500.370	ng/L	
Hg2600-2	BC	SAM	1709567-04RE1	100	10/13/2017 9:43:41	87245-1.RAW	9:43:41	711.58	1		701.1	3.966	396.586	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	10/13/2017 9:47:49	87246-1.RAW	9:47:49	861.64			851.1	4.825	4.825	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	10/13/2017 9:51:57	87247-1.RAW	9:51:57	22.50			12.0	0.068	0.068	ng/L	
Hg2600-2	BC	SAM	1709567-05RE1	100	10/13/2017 9:57:53	87248-1.RAW	9:57:53	602.54	1		592.0	3.348	334.775	ng/L	
Hg2600-2	BC	SAM	1709567-06RE2	100	10/13/2017 10:02:01	87249-1.RAW	10:02:01	656.30	1		645.8	3.653	365.251	ng/L	
Hg2600-2	BC	SAM	1709567-07RE1	100	10/13/2017 10:06:10	87250-1.RAW	10:06:10	707.46	1		697.0	3.943	394.252	ng/L	
Hg2600-2	BC	SAM	1709567-08RE2	100	10/13/2017 10:10:18	87251-1.RAW	10:10:18	621.21	1		610.7	3.454	345.357	ng/L	
Hg2600-2	BC	SAM	1709567-09RE2	100	10/13/2017 10:14:26	87252-1.RAW	10:14:26	821.64	1		811.1	4.590	458.981	ng/L	
Hg2600-2	BC	SAM	1709567-10RE2	100	10/13/2017 10:18:35	87253-1.RAW	10:18:35	660.39	1		649.9	3.676	367.570	ng/L	
Hg2600-2	BC	SAM	1709567-11RE1	100	10/13/2017 10:22:43	87254-1.RAW	10:22:43	725.80	1		715.3	4.047	404.651	ng/L	
Hg2600-2	BC	SAM	1709567-12RE1	100	10/13/2017 10:26:52	87255-1.RAW	10:26:52	478.83	1		468.3	2.646	264.640	ng/L	
Hg2600-2	BC	SAM	1709567-13RE1	100	10/13/2017 10:31:00	87256-1.RAW	10:31:00	567.20	1		556.7	3.147	314.737	ng/L	
Hg2600-2	BC	SAM	1709567-14RE1	100	10/13/2017 10:35:09	87257-1.RAW	10:35:09	533.99	1		523.5	2.959	295.909	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	10/13/2017 10:39:17	87258-1.RAW	10:39:17	895.85			885.4	5.019	5.019	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	10/13/2017 10:43:25	87259-1.RAW	10:43:25	24.57			14.1	0.080	0.080	ng/L	
Hg2600-2	BC	SAM	1709567-15RE1	100	10/13/2017 10:47:34	87260-1.RAW	10:47:34	519.88	1		509.4	2.879	287.914	ng/L	
Hg2600-2	BC	SAM	1709568-01RE2	10	10/13/2017 10:51:42	87261-1.RAW	10:51:42	192.09	1		181.6	0.944	9.439	ng/L	
Hg2600-2	BC	SAM	1709568-02RE1	10	10/13/2017 10:55:51	87262-1.RAW	10:55:51	237.96	1		227.5	1.204	12.039	ng/L	
Hg2600-2	BC	SAM	1709568-03RE1	10	10/13/2017 10:59:59	87263-1.RAW	10:59:59	201.46	1		191.0	0.997	9.970	ng/L	
Hg2600-2	BC	SAM	F710324-MS1	400	10/13/2017 11:04:08	87264-1.RAW	11:04:08	1232.98	1		1222.5	6.928	2771.239	ng/L	
Hg2600-2	BC	SAM	F710324-MSD1	400	10/13/2017 11:08:16	87265-1.RAW	11:08:16	1304.62	1		1294.1	7.334	2933.694	ng/L	
Hg2600-2	BC	SAM	F710324-MS2	400	10/13/2017 11:12:24	87266-1.RAW	11:12:24	1247.34	1		1236.8	7.010	2803.804	ng/L	
Hg2600-2	BC	SAM	F710324-MSD2	400	10/13/2017 11:16:33	87267-1.RAW	11:16:33	1264.44	1		1253.9	7.106	2842.576	ng/L	
Hg2600-2	BC	SAM	BS	20	10/13/2017 11:20:41	87268-1.RAW	11:20:41	885.26		X	874.8	4.959	99.180	ng/L	
Hg2600-2	BC	SAM	BSD	20	10/13/2017 11:24:50	87269-1.RAW	11:24:50	914.65		X	904.2	5.126	102.512	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	10/13/2017 11:28:58	87270-1.RAW	11:28:58	860.02			849.5	4.816	4.816	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	10/13/2017 11:33:06	87271-1.RAW	11:33:06	18.92			8.4	0.048	0.048	ng/L	
Hg2600-2	BC	SAM	BS2	400	10/13/2017 11:37:15	87272-1.RAW	11:37:15	1061.83		X	1051.3	5.960	2384.000	ng/L	
Hg2600-2	BC	BLK	F710345-BLK1	1	10/13/2017 11:41:24	87273-1.RAW	11:41:24	15.02	2		4.5	0.026	0.026	ng/L	
Hg2600-2	BC	BLK	F710345-BLK2	1	10/13/2017 11:45:33	87274-1.RAW	11:45:33	13.08	2		2.6	0.015	0.015	ng/L	
Hg2600-2	BC	BLK	F710345-BLK3	1	10/13/2017 11:49:41	87275-1.RAW	11:49:41	3.43	2		-7.1	-0.040	-0.040	ng/L	
Hg2600-2	BC	BLK	F710345-BLK4	1	10/13/2017 11:53:50	87276-1.RAW	11:53:50	8.92	3		-1.6	-0.009	-0.009	ng/L	
Hg2600-2	BC	BLK	F710345-BLK5	10	10/13/2017 11:57:58	87277-1.RAW	11:57:58	15.00	4		4.5	0.026	0.255	ng/L	
Hg2600-2	BC	SAM	F710345-BS1	1	10/13/2017 12:02:07	87278-1.RAW	12:02:07	2592.39	2		2581.9	14.637	14.637	ng/L	
Hg2600-2	BC	SAM	F710345-BSD1	1	10/13/2017 12:06:15	87279-1.RAW	12:06:15	2618.62	2		2608.1	14.785	14.785	ng/L	
Hg2600-2	BC	SAM	1710276-01	1	10/13/2017 12:10:24	87280-1.RAW	12:10:24	196.86	2		186.4	1.056	1.056	ng/L	
Hg2600-2	BC	SAM	1710276-02	10	10/13/2017 12:14:32	87281-1.RAW	12:14:32	1313.66	3		1303.2	7.388	73.885	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	10/13/2017 12:18:40	87282-1.RAW	12:18:40	852.35			841.9	4.772	4.772	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	10/13/2017 12:22:49	87283-1.RAW	12:22:49	28.02			17.5	0.099	0.099	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	SAM	1710276-03	1	10/13/2017 12:26:57	87284-1.RAW	12:26:57	213.26	2		202.8	1.149	1.149	ng/L	
Hg2600-2	BC	SAM	1710324-01	1	10/13/2017 12:31:06	87285-1.RAW	12:31:06	1709.85	2		1699.4	9.634	9.634	ng/L	
Hg2600-2	BC	SAM	1710328-11RE1	1	10/13/2017 12:35:14	87286-1.RAW	12:35:14	81.38	2		70.9	0.402	0.402	ng/L	
Hg2600-2	BC	SAM	1710328-12RE1	1	10/13/2017 12:39:22	87287-1.RAW	12:39:22	100.75	2		90.3	0.512	0.512	ng/L	
Hg2600-2	BC	SAM	1710350-01	1	10/13/2017 12:43:31	87288-1.RAW	12:43:31	939.51	2		929.0	5.266	5.266	ng/L	
Hg2600-2	BC	SAM	1710350-02	1	10/13/2017 12:47:39	87289-1.RAW	12:47:39	55.69	2		45.2	0.256	0.256	ng/L	
Hg2600-2	BC	SAM	1710350-03	1	10/13/2017 12:51:48	87290-1.RAW	12:51:48	775.35	2		764.9	4.336	4.336	ng/L	
Hg2600-2	BC	SAM	1710350-04	1	10/13/2017 12:55:56	87291-1.RAW	12:55:56	18.48	2		8.0	0.045	0.045	ng/L	
Hg2600-2	BC	SAM	1710350-05	10	10/13/2017 13:00:05	87292-1.RAW	13:00:05	434.95	4		424.5	2.381	23.807	ng/L	
Hg2600-2	BC	SAM	1710350-06	1	10/13/2017 13:04:13	87293-1.RAW	13:04:13	13.26	2		2.8	0.016	0.016	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	10/13/2017 13:08:21	87294-1.RAW	13:08:21	866.36			855.9	4.852	4.852	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	10/13/2017 13:12:30	87295-1.RAW	13:12:30	17.03			6.5	0.037	0.037	ng/L	
Hg2600-2	BC	SAM	1710354-01	1	10/13/2017 13:16:38	87296-1.RAW	13:16:38	8.61	2		-1.9	-0.011	-0.011	ng/L	
Hg2600-2	BC	SAM	1710354-02	10	10/13/2017 13:20:47	87297-1.RAW	13:20:47	449.17	2	22-2	438.7	2.487	24.868	ng/L	
Hg2600-2	BC	SAM	1710354-03	1	10/13/2017 13:24:55	87298-1.RAW	13:24:55	1063.90	2	22-2	1053.4	5.972	5.972	ng/L	
Hg2600-2	BC	SAM	1710359-01	1	10/13/2017 13:29:03	87299-1.RAW	13:29:03	391.28	2	22-2	380.8	2.159	2.159	ng/L	
Hg2600-2	BC	SAM	1710359-02	1	10/13/2017 13:33:12	87300-1.RAW	13:33:12	8219.88	2		8209.4	46.539	46.539	ng/L	
Hg2600-2	BC	SAM	1710359-03	1	10/13/2017 13:37:20	87301-1.RAW	13:37:20	54.70	2		44.2	0.251	0.251	ng/L	
Hg2600-2	BC	SAM	1710359-04	1	10/13/2017 13:41:44	87302-1.RAW	13:41:44	27.65	2		17.2	0.097	0.097	ng/L	
Hg2600-2	BC	SAM	F710345-DUP1	1	10/13/2017 13:46:12	87303-1.RAW	13:46:12	1716.10	2		1705.6	9.669	9.669	ng/L	
Hg2600-2	BC	SAM	F710345-MS1	1	10/13/2017 13:50:21	87304-1.RAW	13:50:21	3841.95	2		3831.5	21.720	21.720	ng/L	
Hg2600-2	BC	SAM	F710345-MSD1	1	10/13/2017 13:54:29	87305-1.RAW	13:54:29	3910.61	2		3900.1	22.110	22.110	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	10/13/2017 13:58:38	87306-1.RAW	13:58:38	866.63			856.1	4.853	4.853	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	10/13/2017 14:02:46	87307-1.RAW	14:02:46	38.01			27.5	0.156	0.156	ng/L	
Hg2600-2	BC	SAM	F710345-MS2	1	10/13/2017 14:06:55	87308-1.RAW	14:06:55	3529.82	2		3519.3	19.951	19.951	ng/L	
Hg2600-2	BC	SAM	F710345-MSD2	1	10/13/2017 14:11:03	87309-1.RAW	14:11:03	3535.79	2		3525.3	19.985	19.985	ng/L	
Hg2600-2	BC	SAM	1710359-02RE1	10	10/13/2017 14:15:11	87310-1.RAW	14:15:11	879.57	2		869.1	4.927	49.267	ng/L	
Hg2600-2	BC	SAM	1710359-03RE1	1	10/13/2017 14:19:20	87311-1.RAW	14:19:20	33.28	2		22.8	0.129	0.129	ng/L	
Hg2600-2	BC	BLK	F710214-BLK1	20	10/13/2017 14:23:28	87312-1.RAW	14:23:28	30.27	5		19.8	0.112	2.242	ng/L	
Hg2600-2	BC	BLK	F710214-BLK2	20	10/13/2017 14:27:37	87313-1.RAW	14:27:37	22.51	5		12.0	0.068	1.362	ng/L	
Hg2600-2	BC	BLK	F710214-BLK3	20	10/13/2017 14:31:45	87314-1.RAW	14:31:45	21.06	5		10.6	0.060	1.197	ng/L	
Hg2600-2	BC	SAM	*F710214-BLK4	20	10/13/2017 14:35:54	87315-1.RAW	14:35:54	29.18	5		18.7	0.026	0.518	ng/L	
Hg2600-2	BC	SAM	*F710214-BLK5	20	10/13/2017 14:40:02	87316-1.RAW	14:40:02	13.65	5		3.2	-0.062	-1.243	ng/L	
Hg2600-2	BC	SAM	F710214-BS1	20	10/13/2017 14:44:10	87317-1.RAW	14:44:10	884.56	5		874.1	4.875	97.500	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	10/13/2017 14:48:19	87318-1.RAW	14:48:19	853.85			843.4	4.781	4.781	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	10/13/2017 14:52:27	87319-1.RAW	14:52:27	23.63			13.1	0.074	0.074	ng/L	
Hg2600-2	BC	SAM	F710214-BSD1	20	10/13/2017 14:56:36	87320-1.RAW	14:56:36	904.08	5		893.6	4.986	99.714	ng/L	
Hg2600-2	BC	SAM	F710214-BS2	400	10/13/2017 15:00:44	87321-1.RAW	15:00:44	977.61	5		967.1	5.479	2191.405	ng/L	
Hg2600-2	BC	SAM	F710345-MS3	1	10/13/2017 15:04:52	87322-1.RAW	15:04:52	4370.34	2		4359.8	24.716	24.716	ng/L	
Hg2600-2	BC	SAM	F710345-MSD3	1	10/13/2017 15:09:01	87323-1.RAW	15:09:01	4497.60	2		4487.1	25.437	25.437	ng/L	
Hg2600-2	BC	SAM	1709618-01	50	10/13/2017 15:13:10	87324-1.RAW	15:13:10	4229.58	5		4219.1	23.886	1194.292	ng/L	
Hg2600-2	BC	SAM	1709618-02	50	10/13/2017 15:17:18	87325-1.RAW	15:17:18	4209.48	5		4199.0	23.772	1188.595	ng/L	
Hg2600-2	BC	SAM	1709618-03	50	10/13/2017 15:21:26	87326-1.RAW	15:21:26	4609.07	5		4598.6	26.037	1301.859	ng/L	
Hg2600-2	BC	SAM	1709618-04	50	10/13/2017 15:25:35	87327-1.RAW	15:25:35	7412.13	5		7401.6	41.928	2096.382	ng/L	
Hg2600-2	BC	SAM	1709618-05	50	10/13/2017 15:29:43	87328-1.RAW	15:29:43	5317.43	5		5306.9	30.053	1502.643	ng/L	
Hg2600-2	BC	SAM	1709618-06	50	10/13/2017 15:33:51	87329-1.RAW	15:33:51	5421.66	5		5411.2	30.644	1532.188	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8	1	10/13/2017 15:38:00	87330-1.RAW	15:38:00	890.35			879.9	4.988	4.988	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB8	1	10/13/2017 15:42:08	87331-1.RAW	15:42:08	46.49			36.0	0.204	0.204	ng/L	
Hg2600-2	BC	SAM	F710214-DUP1	50	10/13/2017 15:46:17	87332-1.RAW	15:46:17	4289.19	5		4278.7	24.224	1211.189	ng/L	
Hg2600-2	BC	SAM	F710214-MS1	400	10/13/2017 15:50:25	87333-1.RAW	15:50:25	2722.60	5		2712.1	15.371	6148.340	ng/L	
Hg2600-2	BC	SAM	F710214-MSD1	400	10/13/2017 15:54:33	87334-1.RAW	15:54:33	2642.08	5		2631.6	14.914	5965.745	ng/L	
Hg2600-2	BC	SAM	F710214-MS2	400	10/13/2017 15:58:42	87335-1.RAW	15:58:42	2658.21	5		2647.7	15.006	6002.327	ng/L	
Hg2600-2	BC	SAM	F710214-MSD2	400	10/13/2017 16:02:50	87336-1.RAW	16:02:50	2707.09	5		2696.6	15.283	6113.174	ng/L	
Hg2600-2	BC	SAM	1709618-04RE1	100	10/13/2017 16:06:59	87337-1.RAW	16:06:59	3665.30	5		3654.8	20.703	2070.297	ng/L	
Hg2600-2	BC	SAM	1709618-05RE1	50	10/13/2017 16:11:07	87338-1.RAW	16:11:07	5021.01	5		5010.5	28.372	1418.624	ng/L	
Hg2600-2	BC	SAM	1709619-03	400	10/13/2017 16:15:16	87339-1.RAW	16:15:16	761.36	5		750.9	4.253	1701.050	ng/L	
Hg2600-2	BC	SAM	1709619-04	400	10/13/2017 16:19:24	87340-1.RAW	16:19:24	694.74	5		684.2	3.875	1549.976	ng/L	
Hg2600-2	BC	SAM	1709619-05	400	10/13/2017 16:23:33	87341-1.RAW	16:23:33	406.36	5		395.9	2.240	896.060	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV9	1	10/13/2017 16:27:41	87342-1.RAW	16:27:41	879.44			868.9	4.926	4.926	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB9	1	10/13/2017 16:31:49	87343-1.RAW	16:31:49	37.27			26.8	0.152	0.152	ng/L	

TotalMercury EPA1631
Operat BC **BlankSi** 10.496 **Calib Eqn:** Conc = (Area-10.49 **Run Date:** ##### **Blank SD:** 3.151244728
Worksh THg2600 **CalibFa** 176.4 **Status:** QC Warnings:6/QC E **Run Time:** 13:42:03 **Blank RSD%:** 30.0226137
Method ##### **R:** 0.9999 **R²:** 0.9999 **CF SD:** 7.752893885
Descrip THg26002-171013-1 **CF RSD%:** 4.39509337

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean				0.00	4.38					87222-1.RAW	8:09:44	772.68	Clean	OK	1
clean				0.00	0.01					87223-1.RAW	8:12:35	1.49	Clean	OK	1
ws				10.50	0.00					87224-1.RAW	8:16:44	7.91	Sample	OK	1
ws				10.50	0.00					87225-1.RAW	8:20:52	5.44	Sample	OK	1
ws				10.50	0.00					87226-1.RAW	8:25:01	5.88	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.07					87227-1.RAW	8:29:09	11.75	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.07					87228-1.RAW	8:33:17	12.83	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.04					87229-1.RAW	8:37:26	6.91	Sample	OK	1
SEQ-CAL1	A4		1	10.50	0.50			99.13		87230-1.RAW	8:41:34	97.93	Sample	OK	1
SEQ-CAL2	A5		1	10.50	1.08			107.62		87231-1.RAW	8:45:43	200.34	Sample	OK	1
SEQ-CAL3	A6		1	10.50	4.92			98.41		87232-1.RAW	8:49:51	878.51	Sample	OK	1
SEQ-CAL4	A7		1	10.50	19.71			98.56		87233-1.RAW	8:54:00	3487.60	Sample	OK	1
SEQ-CAL5	A8		1	10.50	38.51			96.28		87234-1.RAW	8:58:08	6803.73	Sample	OK	1
SEQ-ICV1	A9		1	10.50	4.97			99.44		87235-1.RAW	9:02:16	887.55	Sample	OK	1
F710324-BLK1	A10		10	10.50	1.25					87236-1.RAW	9:06:25	32.56	Sample	OK	1
F710324-BLK2	A11		10	10.50	0.46					87237-1.RAW	9:10:33	18.61	Sample	OK	1
F710324-BS1	A12		10	10.50	193.60					87238-1.RAW	9:14:42	3425.61	Sample	OK	1
F710324-BSD1	A13		10	10.50	202.23					87239-1.RAW	9:18:50	3577.90	Sample	OK	1
1709566-14RE1	A14		10	10.50	73.27					87240-1.RAW	9:22:59	1302.97	Sample	OK	1
1709566-15RE1	A15		10	10.50	53.33					87241-1.RAW	9:27:07	951.28	Sample	OK	1
1709567-01RE2	A16		100	10.50	557.14					87242-1.RAW	9:31:15	993.29	Sample	OK	1
1709567-02RE1	A17		100	10.50	424.40					87243-1.RAW	9:35:24	759.13	Sample	OK	1
1709567-03RE1	A18		100	10.50	501.23					87244-1.RAW	9:39:32	894.65	Sample	OK	1
1709567-04RE1	A19		100	10.50	397.44					87245-1.RAW	9:43:41	711.58	Sample	OK	1
SEQ-CCV1	A20		1	10.50	4.83			96.50		87246-1.RAW	9:47:49	861.64	Sample	OK	1
SEQ-CCB1	A21		1	10.50	0.07			0.00		87247-1.RAW	9:51:57	22.50	Sample	OK	1
1709567-05RE1	B1		100	10.50	335.63					87248-1.RAW	9:57:53	602.54	Sample	OK	1
1709567-06RE2	B2		100	10.50	366.11					87249-1.RAW	10:02:01	656.30	Sample	OK	1
1709567-07RE1	B3		100	10.50	395.11					87250-1.RAW	10:06:10	707.46	Sample	OK	1
1709567-08RE2	B4		100	10.50	346.21					87251-1.RAW	10:10:18	621.21	Sample	OK	1
1709567-09RE2	B5		100	10.50	459.84					87252-1.RAW	10:14:26	821.64	Sample	OK	1
1709567-10RE2	B6		100	10.50	368.43					87253-1.RAW	10:18:35	660.39	Sample	OK	1
1709567-11RE1	B7		100	10.50	405.51					87254-1.RAW	10:22:43	725.80	Sample	OK	1
1709567-12RE1	B8		100	10.50	265.50					87255-1.RAW	10:26:52	478.83	Sample	OK	1
1709567-13RE1	B9		100	10.50	315.59					87256-1.RAW	10:31:00	567.20	Sample	OK	1
1709567-14RE1	B10		100	10.50	296.76					87257-1.RAW	10:35:09	533.99	Sample	OK	1
SEQ-CCV2	B11		1	10.50	5.02			100.38		87258-1.RAW	10:39:17	895.85	Sample	OK	1
SEQ-CCB2	B12		1	10.50	0.08			0.00		87259-1.RAW	10:43:25	24.57	Sample	OK	1
1709567-15RE1	B13		100	10.50	288.77					87260-1.RAW	10:47:34	519.88	Sample	OK	1
1709568-01RE2	B14		10	10.50	10.29					87261-1.RAW	10:51:42	192.09	Sample	OK	1
1709568-02RE1	B15		10	10.50	12.89					87262-1.RAW	10:55:51	237.96	Sample	OK	1
1709568-03RE1	B16		10	10.50	10.83					87263-1.RAW	10:59:59	201.46	Sample	OK	1
F710324-MS1	B17		400	10.50	2772.09			23441.82		87264-1.RAW	11:04:08	1232.98	Sample	OK	1

F710324-MSD1	B18	400	10.50	2934.55		87265-1.RAW	11:08:16	1304.62	Sample	OK	1
F710324-MS2	B19	400	10.50	2804.66	95.51	87266-1.RAW	11:12:24	1247.34	Sample	OK	1
F710324-MSD2	B20	400	10.50	2843.43		87267-1.RAW	11:16:33	1264.44	Sample	OK	1
BS	B21	20	10.50	99.18		87268-1.RAW	11:20:41	885.26	Sample	OK	1
BSD	C1	20	10.50	102.51		87269-1.RAW	11:24:50	914.65	Sample	OK	1
SEQ-CCV3	C2	1	10.50	4.82	96.32	87270-1.RAW	11:28:58	860.02	Sample	OK	1
SEQ-CCB3	C3	1	10.50	0.05	0.00	87271-1.RAW	11:33:06	18.92	Sample	OK	1
BS2	C4	400	10.50	2384.00		87272-1.RAW	11:37:15	1061.83	Sample	OK	1
F710345-BLK1	C5	1	10.50	0.03		87273-1.RAW	11:41:24	15.02	Sample	OK	1
F710345-BLK2	C6	1	10.50	0.01		87274-1.RAW	11:45:33	13.08	Sample	OK	1
F710345-BLK3	C7	1	10.50	0.00		87275-1.RAW	11:49:41	3.43	Sample	OK	1
F710345-BLK4	C8	1	10.50	0.00		87276-1.RAW	11:53:50	8.92	Sample	OK	1
F710345-BLK5	C9	10	10.50	0.26		87277-1.RAW	11:57:58	15.00	Sample	OK	1
F710345-BS1	C10	1	10.50	14.64		87278-1.RAW	12:02:07	2592.39	Sample	OK	1
F710345-BS1	C11	1	10.50	14.79		87279-1.RAW	12:06:15	2618.62	Sample	OK	1
1710276-01	C12	1	10.50	1.06		87280-1.RAW	12:10:24	196.86	Sample	OK	1
1710276-02	C13	10	10.50	73.88		87281-1.RAW	12:14:32	1313.66	Sample	OK	1
SEQ-CCV4	C14	1	10.50	4.77	95.45	87282-1.RAW	12:18:40	852.35	Sample	OK	1
SEQ-CCB4	C15	1	10.50	0.10	0.00	87283-1.RAW	12:22:49	28.02	Sample	OK	1
1710276-03	C16	1	10.50	1.15		87284-1.RAW	12:26:57	213.26	Sample	OK	1
1710324-01	C17	1	10.50	9.63		87285-1.RAW	12:31:06	1709.85	Sample	OK	1
1710328-11RE1	C18	1	10.50	0.40		87286-1.RAW	12:35:14	81.38	Sample	OK	1
1710328-12RE1	C19	1	10.50	0.51		87287-1.RAW	12:39:22	100.75	Sample	OK	1
1710350-01	C20	1	10.50	5.27		87288-1.RAW	12:43:31	939.51	Sample	OK	1
1710350-02	C21	1	10.50	0.26		87289-1.RAW	12:47:39	55.69	Sample	OK	1
1710350-03	A1	1	10.50	4.34		87290-1.RAW	12:51:48	775.35	Sample	OK	1
1710350-04	A2	1	10.50	0.05		87291-1.RAW	12:55:56	18.48	Sample	OK	1
1710350-05	A3	10	10.50	24.06		87292-1.RAW	13:00:05	434.95	Sample	OK	1
1710350-06	A4	1	10.50	0.02		87293-1.RAW	13:04:13	13.26	Sample	OK	1
SEQ-CCV5	A5	1	10.50	4.85	97.04	87294-1.RAW	13:08:21	866.36	Sample	OK	1
SEQ-CCB5	A6	1	10.50	0.04	0.00	87295-1.RAW	13:12:30	17.03	Sample	OK	1
1710354-01	A7	1	10.50	0.00		87296-1.RAW	13:16:38	8.61	Sample	OK	1
1710354-02	A8	10	10.50	24.87		87297-1.RAW	13:20:47	449.17	Sample	OK	1
1710354-03	A9	1	10.50	5.97		87298-1.RAW	13:24:55	1063.90	Sample	OK	1
1710359-01	A10	1	10.50	2.16		87299-1.RAW	13:29:03	391.28	Sample	OK	1
1710359-02	A11	1	10.50	46.54		87300-1.RAW	13:33:12	8219.88	Sample	FB	1
1710359-03	A12	1	10.50	0.25		87301-1.RAW	13:37:20	54.70	Sample	OK	1
1710359-04	A13	1	10.50	0.10		87302-1.RAW	13:41:44	27.65	Sample	OK	1
F710345-DUP1	A14	1	10.50	9.67		87303-1.RAW	13:46:12	1716.10	Sample	OK	1
F710345-MS1	A15	1	10.50	21.72	203.58	87304-1.RAW	13:50:21	3841.95	Sample	OK	1
F710345-MSD1	A16	1	10.50	22.11		87305-1.RAW	13:54:29	3910.61	Sample	OK	1
SEQ-CCV6	A17	1	10.50	4.85	97.07	87306-1.RAW	13:58:38	866.63	Sample	OK	1
SEQ-CCB6	A18	1	10.50	0.16	0.00	87307-1.RAW	14:02:46	38.01	Sample	OK	1
F710345-MS2	A19	1	10.50	19.95	925.39	87308-1.RAW	14:06:55	3529.82	Sample	OK	1
F710345-MSD2	A20	1	10.50	19.98		87309-1.RAW	14:11:03	3535.79	Sample	OK	1
1710359-02RE1	A21	10	10.50	49.27		87310-1.RAW	14:15:11	879.57	Sample	OK	1
1710359-03RE1	B1	1	10.50	0.13		87311-1.RAW	14:19:20	33.28	Sample	OK	1
F710214-BLK1	B2	20	10.50	2.24		87312-1.RAW	14:23:28	30.27	Sample	OK	1

F710214-BLK2	B3	20	10.50	1.36		87313-1.RAW	14:27:37	22.51	Sample	OK	1
F710214-BLK3	B4	20	10.50	1.20		87314-1.RAW	14:31:45	21.06	Sample	OK	1
F710214-BLK4	B5	20	10.50	2.12		87315-1.RAW	14:35:54	29.18	Sample	OK	1
F710214-BLK5	B6	20	10.50	0.36		87316-1.RAW	14:40:02	13.65	Sample	OK	1
F710214-BS1	B7	20	10.50	99.10		87317-1.RAW	14:44:10	884.56	Sample	OK	1
SEQ-CCV7	B8	1	10.50	4.78	95.62	87318-1.RAW	14:48:19	853.85	Sample	OK	1
SEQ-CCB7	B9	1	10.50	0.07	0.00	87319-1.RAW	14:52:27	23.63	Sample	OK	1
F710214-BSD1	B10	20	10.50	101.31		87320-1.RAW	14:56:36	904.08	Sample	OK	1
F710214-BS2	B11	400	10.50	2193.01		87321-1.RAW	15:00:44	977.61	Sample	OK	1
F710345-MS3	B12	1	10.50	24.72	1.13	87322-1.RAW	15:04:52	4370.34	Sample	OK	1
F710345-MSD3	B13	1	10.50	25.44		87323-1.RAW	15:09:01	4497.60	Sample	OK	1
1709618-01	B14	50	10.50	1195.89		87324-1.RAW	15:13:10	4229.58	Sample	OK	1
1709618-02	B15	50	10.50	1190.20		87325-1.RAW	15:17:18	4209.48	Sample	OK	1
1709618-03	B16	50	10.50	1303.46		87326-1.RAW	15:21:26	4609.07	Sample	OK	1
1709618-04	B17	50	10.50	2097.98		87327-1.RAW	15:25:35	7412.13	Sample	OK	1
1709618-05	B18	50	10.50	1504.24		87328-1.RAW	15:29:43	5317.43	Sample	OK	1
1709618-06	B19	50	10.50	1533.79		87329-1.RAW	15:33:51	5421.66	Sample	FB	1
SEQ-CCV8	B20	1	10.50	4.99	99.76	87330-1.RAW	15:38:00	890.35	Sample	OK	1
SEQ-CCB8	B21	1	10.50	0.20	0.00	87331-1.RAW	15:42:08	46.49	Sample	OK	1
F710214-DUP1	C1	50	10.50	1212.79		87332-1.RAW	15:46:17	4289.19	Sample	OK	1
F710214-MS1	C2	400	10.50	6149.94	506.67	87333-1.RAW	15:50:25	2722.60	Sample	OK	1
F710214-MSD1	C3	400	10.50	5967.35		87334-1.RAW	15:54:33	2642.08	Sample	OK	1
F710214-MS2	C4	400	10.50	6003.93	100.58	87335-1.RAW	15:58:42	2658.21	Sample	OK	1
F710214-MSD2	C5	400	10.50	6114.77		87336-1.RAW	16:02:50	2707.09	Sample	OK	1
1709618-04RE1	C6	100	10.50	2071.90		87337-1.RAW	16:06:59	3665.30	Sample	OK	1
1709618-05RE1	C7	50	10.50	1420.22		87338-1.RAW	16:11:07	5021.01	Sample	OK	1
1709619-03	C8	400	10.50	1702.65		87339-1.RAW	16:15:16	761.36	Sample	OK	1
1709619-04	C9	400	10.50	1551.58		87340-1.RAW	16:19:24	694.74	Sample	OK	1
1709619-05	C10	400	10.50	897.66		87341-1.RAW	16:23:33	406.36	Sample	OK	1
SEQ-CCV9	C11	1	10.50	4.93	98.52	87342-1.RAW	16:27:41	879.44	Sample	OK	1
SEQ-CCB9	C12	1	10.50	0.15	0.00	87343-1.RAW	16:31:49	37.27	Sample	OK	1

ANALYSIS SEQUENCE

7J16019

QUALITY ASSURANCE
PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS:

DMW 10.10.17

Analyzed: 10/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J16019-IBL1	QC	1			
7J16019-IBL2	QC	2			
7J16019-IBL3	QC	3			
7J16019-CAL1	QC	4	1704505		
7J16019-CAL2	QC	5	1704506		
7J16019-CAL3	QC	6	1704507		
7J16019-CAL4	QC	7	1704508		
7J16019-CAL5	QC	8	1704509		
7J16019-ICV1	QC	9	1705628		
7J16019-CCV1	QC	10	1705628		
7J16019-CCB1	QC	11			
7J16019-CCV2	QC	12	1705628		
7J16019-CCB2	QC	13			
7J16019-CCV3	QC	14	1705628		
7J16019-CCB3	QC	15			
F710345-BLK1	QC	16			
F710345-BLK2	QC	17			
F710345-BLK3	QC	18			
F710345-BLK4	QC	19			
F710345-BLK5	QC	20			
F710345-BS1	QC	21			
F710345-BSD1	QC	22			
1710276-01	Hg-CVAFS-W-1631	23			
1710276-02	Hg-CVAFS-W-1631	24			
7J16019-CCV4	QC	25	1705628		
7J16019-CCB4	QC	26			
1710276-03	Hg-CVAFS-W-1631	27			
1710324-01	Hg-CVAFS-W-1631	28			scan all data for Level IV report
1710328-11RE1	Hg-CVAFS-W-1631	29			Re-extract added 10/12/2017 by DM2
1710328-12RE1	Hg-CVAFS-W-1631	30			Re-extract added 10/12/2017 by DM2
1710350-01	Hg-CVAFS-W-1631	31			
1710350-02	Hg-CVAFS-W-1631	32			
1710350-03	Hg-CVAFS-W-1631	33			
1710350-04	Hg-CVAFS-W-1631	34			
1710350-05	Hg-CVAFS-W-1631	35			

Due Date: 10/16/2017

73 of 110

Page 1 of 2

ANALYSIS SEQUENCE

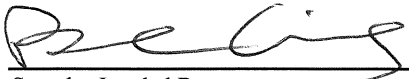
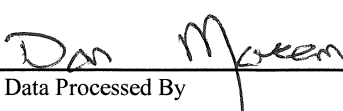
7J16019

Instrument: Hg2600-2

Calibration ID: UNASSIGNED


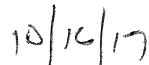
Analyzed: 10/13/2017


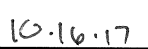
Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1710350-06	Hg-CVAFS-W-1631	36			
7J16019-CCV5	QC	37	1705628		
7J16019-CCB5	QC	38			
1710354-01	Hg-CVAFS-W-1631	39			client specific reporting limits
1710354-02	Hg-CVAFS-W-1631	40			client specific reporting limits
1710354-03	Hg-CVAFS-W-1631	41			client specific reporting limits
1710359-01	Hg-CVAFS-W-1631	42			
1710359-02	Hg-CVAFS-W-1631	43			
1710359-03	Hg-CVAFS-W-1631	44			
1710359-04	Hg-CVAFS-W-1631	45			
F710345-DUP1	QC	46			
F710345-MS1	QC	47			
F710345-MSD1	QC	48			
7J16019-CCV6	QC	49	1705628		
7J16019-CCB6	QC	50			
F710345-MS2	QC	51			
F710345-MSD2	QC	52			
1710359-02RE1	Hg-CVAFS-W-1631	53			Added 10/16/2017 by DM2
1710359-03RE1	Hg-CVAFS-W-1631	54			Added 10/16/2017 by DM2
7J16019-CCV7	QC	55	1705628		
7J16019-CCB7	QC	56			
F710345-MS3	QC	57			
F710345-MSD3	QC	58			
7J16019-CCV8	QC	59	1705628		
7J16019-CCB8	QC	60			


10/13/17

10/16/17
 Samples Loaded By _____ Date _____ Data Processed By _____ Date _____

Failing Data Report - 7J16019

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1710359-02	Hg-CVAFS-W-1631	47.0	0.50				ng/L						FAIL-OVER	PASS	E


 Analyst Reviewed By _____

 Date _____


 Peer Reviewed By _____

 Date _____

Failing Data Report - 7J16019

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1710359-02	Hg-CVAFS-W-1631	47.0	0.50				ng/L						FAIL-OVER	PASS	E
F710345-MS1	Hg-CVAFS-W-1631	21.94	0.50		9.73	20.240	ng/L	60.3	71.00	125.00			PASS-OVER	FAIL-AS	Re-Analyzed
F710345-MSD1	Hg-CVAFS-W-1631	22.33	0.50	21.94	9.73	20.240	ng/L	62.3	71.00	125.00	1.78	24.00	PASS-OVER	FAIL-ASD (Rec.)	Re-Analyzed

WRONG
SPC. DMW
10-16-17

Dan Mattem 10/16/17
 Analyst Reviewed By Date

 Peer Reviewed By Date

DMW
10-16-17

PREPARATION BENCH SHEET

F710345

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710345-BLK1	Blank	100	101					
F710345-BLK2	Blank	100	101					
F710345-BLK3	Blank	100	101					
F710345-BLK4	Blank	100	102					
F710345-BLK5	Blank	10	20					
F710345-BS1	LCS	50	50.5	1705054	100			
F710345-BSD1	LCS Dup	50	50.5	1705054	100			
F710345-DUP1	Duplicate [1710324-01] -	100	101					
F710345-MS1	Matrix Spike [1710324-01] ¹⁷¹⁰³⁵⁰⁻⁰¹	49.50495	50	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710345-MS2	Matrix Spike [1710354-01] - ^{DMV}	49.50495	50	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710345-MS3	Matrix Spike [1710354-03] - ¹⁰⁻¹⁶⁻¹⁷	49.50495	50	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710345-MSD1	Matrix Spike Dup [1710324-01] ¹⁷¹⁰³⁵⁰⁻⁰¹	49.50495	50	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710345-MSD2	Matrix Spike Dup [1710354-01] -	49.50495	50	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710345-MSD3	Matrix Spike Dup [1710354-03] -	49.50495	50	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704422 -	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703182 -	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705054 -	Nist 1641D 200X	21-Aug-18 00:00	1705610 -	THg Washstation (0.5% BrCl)	
			1705611 -	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705961 -	3% SnCl2 THg reductant	25-Mar-18 00:00

PREPARATION BENCH SHEET

F710345

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710276-01	1728233-01	100	101	-	-	-		
1710276-02	1728233-02	100	102	-	-	-		
1710276-03	1728233-03	100	101	-	-	-		
1710324-01	17J0116-01	100	101	-	-	-	scan all data for Level IV report	
1710328-11RE1	PL2-214B-170920 Total Metals 9224065	100	101	-	-	-	Re-extract added 10/12/2017 by DM2	
1710328-12RE1	PL2-214B-170920 Dissolved Metals 9224066	100	101	-	-	-	Re-extract added 10/12/2017 by DM2	
1710350-01	Lagoons	100	101	-	-	-		
1710350-02	Lagoons Blank	100	101	-	-	-		
1710350-03	Clarifiers	100	101	-	-	-		
1710350-04	Clarifiers Blank	100	101	-	-	-		
1710350-05	A-149	10	20	-	-	-		
1710350-06	A-149 Blank	100	101	-	-	-		
1710354-01	Field Blank	100	101	-	-	-	client specific reporting limits	
1710354-02	YRWWTP Influent	100	101	-	-	-	client specific reporting limits	
1710354-03	YRWWTP Effluent	100	101	-	-	-	client specific reporting limits	
1710359-01	40199.1	100	101	-	-	-		
1710359-02	40199.3	100	101	-	-	-		
1710359-02RE1	40199.3	100	101	-	-	-	Added 10/16/2017 by DM2	Added 10/16/2017 by DM2
1710359-03	40200.1	100	101	-	-	-		

Due Date: 10/16/2017

PREPARATION BENCH SHEET

F710345

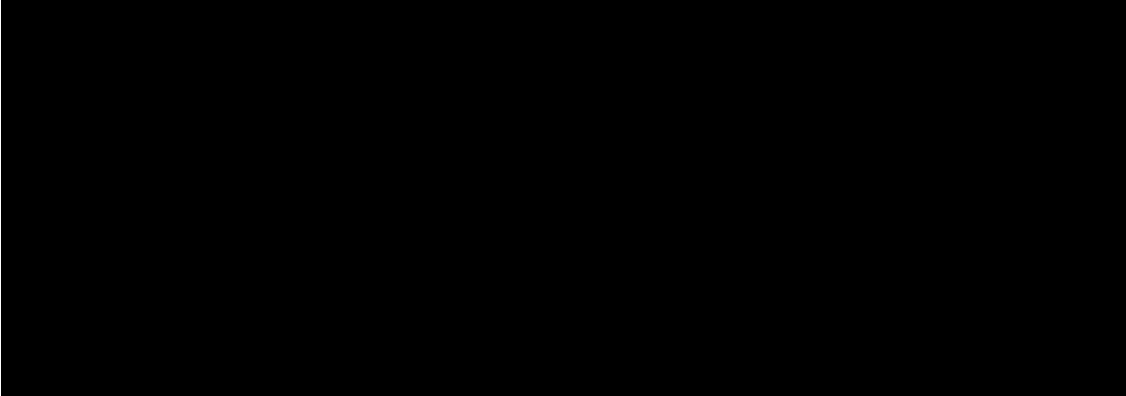
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/13/2017

1710359-03RE1	40200.1	100	101	-	-	-	Added 10/16/2017 by DM2	Added 10/16/2017 by DM2
1710359-04	40200.3	100	101	-	-	-		



PREPARATION BENCH SHEET

F710345

Eurofins Frontier Global Sciences, Inc.

2600-2
BC 10/13/17

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710345-BLK1	Blank	100	101					IX
F710345-BLK2	Blank	100	101					IX
F710345-BLK3	Blank	100	101					IX
F710345-BLK4	Blank	100	101 102					IX
F710345-BS1	LCS	100	101					IX
F710345-BSD1	LCS Dup	100	101					IX
F710345-DUP1	Duplicate 171034-01	100	101					IX
F710345-MS1	Matrix Spike 170350-01	100	101	1704422	100			IX
F710345-MS2	Matrix Spike 1710354-01	100	101	1704422	100			IX
F710345-MSD1	Matrix Spike Dup 1710350-01	100	101	1704422	100			IX
F710345-MSD2	Matrix Spike Dup 1710354-01	100	101	1704422	100			IX

Standard ID(s): Description:

Expiration:

BLK 5

10 20

10X

1705961
1705610
1705611
1703182

MS3 1710354-03 100 1704422 IX

MSD3 1710354-03 100 1704422 IX

IX = 50µL
~~50X~~
10X = 5mL

Due Date: 10/16/2017

PREPARATION BENCH SHEET

F710345

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710276-01	1728233-01	100	101	-	-	-		IX
1710276-02	1728233-02	100	101 102	-	-	-		10X
1710276-03	1728233-03	100	101	-	-	-		IX
1710324-01	17J0116-01	100	101	-	-	-	scan all data for Level IV report	IX
1710328-11RE1	PL2-214B-170920 Total Metals 9224065	100	101	-	-	-	Re-extract added 10/12/2017 by DM2	IX
1710328-12RE1	PL2-214B-170920 Dissolved Metals 9224066	100	101	-	-	-	Re-extract added 10/12/2017 by DM2	IX
1710350-01	Lagoons	100	101	-	-	-		IX
1710350-02	Lagoons Blank	100	101	-	-	-		IX
1710350-03	Clarifiers	100	101	-	-	-		IX
1710350-04	Clarifiers Blank	100	101	-	-	-		IX
1710350-05	A-149	100 10	101 20	-	-	-		IX 10X
1710350-06	A-149 Blank	100	101	-	-	-		IX
1710354-01	Field Blank	100	101	-	-	-	client specific reporting limits	IX
1710354-02	YRWWTP Influent	100	101	-	-	-	client specific reporting limits	IX 10X
1710354-03	YRWWTP Effluent	100	101	-	-	-	client specific reporting limits	IX
1710359-01	40199.1	100	101	-	-	-		IX
1710359-02	40199.3	100	101	-	-	-		IX → 10X
1710359-03	40200.1	100	101	-	-	-		IX → IX
1710359-04	40200.3	100	101	-	-	-		IX

030206
030201
010602
020201

Due Date: 10/16/2017

PREPARATION BENCH SHEET

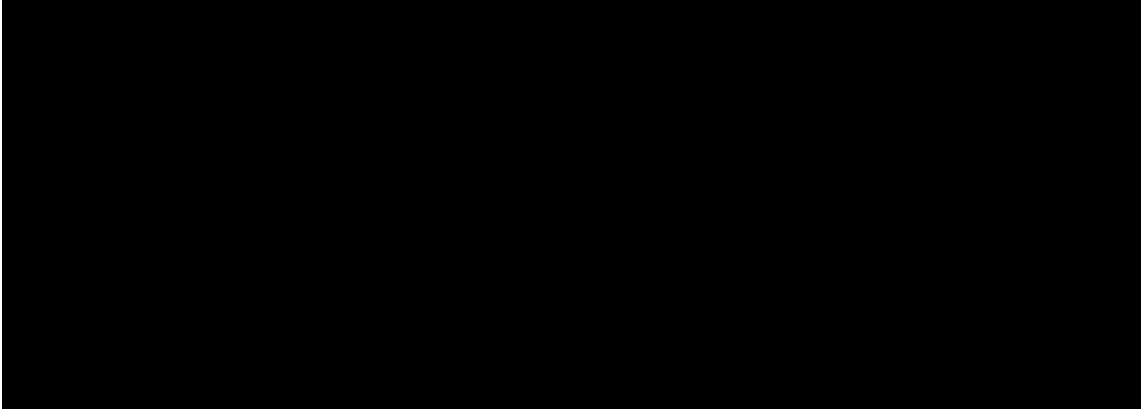
F710345

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/13/2017



Due Date: 10/16/2017

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 10/11/17 Time Completed: 19:00

Work Orders: 1710328
1710324, 1710329, 1710276

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
 Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1705580

Pipette SN: 207631

Cal. Date: 10/9/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710328-24A	250	2.50	Y			
1710324-01A	250	2.50	Y			
1710329-01A	300	3.00	Y			
1710329-02A	300	3.00	Y			
1710329-03A	300	3.00	Y			
1710276-01A	600	6.00	Y			
1710276-02A	600	6.00+6.00	Y			
1710276-03A	600	6.00	Y			
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Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
10/11/17 DM

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 10/11/17 Time Completed: 18:50

Work Orders: 1710327
1710328

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1705580
Pipette SN: J07631
Cal. Date: 10/9/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710327-22A	250	2.50	Y			
1710327-23A	250	2.50	Y			
1710327-24A	250	2.50	Y			
1710328-01A	250	2.50	Y			
1710328-02A	250	2.50	Y			
1710328-03A	250	2.50	Y			
1710328-04A	250	2.50	Y			
1710328-05A	250	2.50	Y			
1710328-06A	250	2.50	Y			
1710328-07A	250	2.50	Y			
1710328-08A	250	2.50	Y			
1710328-09A	250	2.50	Y			
1710328-10A	250	2.50	Y			
1710328-11A	250	2.50	Y			
1710328-12A	250	2.50	Y			
1710328-13A	250	2.50	Y			
1710328-14A	250	2.50	Y			
1710328-15A	250	2.50	Y			
1710328-16A	250	2.50	Y			
1710328-17A	250	2.50	Y			
1710328-18A	250	2.50	Y			
1710328-19A	250	2.50	Y			
1710328-20A	250	2.50	Y			
1710328-21A	250	2.50	Y			
1710328-22A	250	2.50	Y			
1710328-23A	250	2.50	Y			

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: pm Date: 10/11/17 Time Completed: 1550

Work Orders: 1710277
1710350 1710351

Additional preservation and/or verification (as needed)

Technician: pm Date: 10/12/17 Time Completed: 1010

BrCl LIMS ID: 1705580

Pipette SN: 507631

Technician: _____ Date: _____ Time Completed: _____

Cal. Date: 10/18/17 10/11/17
on 10/11/17

Additional preservation (as needed)

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710277-01A	300	3.00	Y			
1710277-02A	300	3.00	Y			
1710277-03A	300	3.00	Y			
1710277-04A	300	3.00	Y			
1710277-05A	300	3.00	Y			
1710277-06A ^{05A}	300	3.00	Y			
1710277-07A	300	3.00	Y			
1710277-09A	300	3.00	Y			
1710277-10A	300	3.00	Y			
1710277-11A	300	3.00	Y			
1710277-13A	300	3.00	Y			
1710277-14A	300	3.00	Y	N	3.00	Y
1710277-15A	300	3.00	Y	N	3.00	Y
1710277-16A	300	3.00	Y	N	3.00	Y
1710277-17A	300	3.00	Y	N	3.00	Y
1710277-19A	300	3.00	Y			
1710277-20A	300	3.00	Y	N	3.00	Y
1710350-01A	300	3.00	Y			
1710350-02A	300	3.00	Y			
1710350-03A	300	3.00	Y			
1710350-04A	300	3.00	Y			
1710350-05B	10	10	Y			
1710350-06A	300	3.00	Y			
1710351-01A	150	1.50	Y			
1710351-02A	150	1.50	Y			
1710351-03A	300	3.00	Y			

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: 1710277 will have composites done
for samples 1-4, 7-11, and 15-16. - LM 10/11/17
15-17 and 19-17 LM 10/11/17
02-05, 08-11, and 14-17 LM 10/11/17

ANALYSIS SEQUENCE

7J16020

QUALITY ASSURANCE
PEER-REVIEWED

Instrument: Hg2600-2

INITIALS: DMW 10.16.17
Analyzed: 10/13/2017

Calibration ID: UNASSIGNED

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J16020-IBL1	QC	1			
7J16020-IBL2	QC	2			
7J16020-IBL3	QC	3			
7J16020-CAL1	QC	4	1704505		
7J16020-CAL2	QC	5	1704506		
7J16020-CAL3	QC	6	1704507		
7J16020-CAL4	QC	7	1704508		
7J16020-CAL5	QC	8	1704509		
7J16020-ICV1	QC	9	1705628		
F710324-BLK1	QC	10			
F710324-BLK2	QC	11			
F710324-BS1	QC	12			
F710324-BSD1	QC	13			
1709566-14RE1	Hg-CVAFS-S-7474	14			From F710271 by BC on 11-Oct-17
1709566-15RE1	Hg-CVAFS-S-7474	15			From F710271 by BC on 11-Oct-17
1709567-01RE2	Hg-CVAFS-S-7474	16			From F710271 by BC on 11-Oct-17
1709567-02RE1	Hg-CVAFS-S-7474	17			From F710271 by BC on 11-Oct-17
1709567-03RE1	Hg-CVAFS-S-7474	18			From F710271 by BC on 11-Oct-17
1709567-04RE1	Hg-CVAFS-S-7474	19			From F710271 by BC on 11-Oct-17
7J16020-CCV1	QC	20	1705628		
7J16020-CCB1	QC	21			
1709567-05RE1	Hg-CVAFS-S-7474	22			From F710271 by BC on 11-Oct-17
1709567-06RE2	Hg-CVAFS-S-7474	23			From F710271 by BC on 11-Oct-17
1709567-07RE1	Hg-CVAFS-S-7474	24			From F710271 by BC on 11-Oct-17
1709567-08RE2	Hg-CVAFS-S-7474	25			From F710271 by BC on 11-Oct-17
1709567-09RE2	Hg-CVAFS-S-7474	26			From F710271 by BC on 11-Oct-17
1709567-10RE2	Hg-CVAFS-S-7474	27			From F710271 by BC on 11-Oct-17
1709567-11RE1	Hg-CVAFS-S-7474	28			From F710271 by BC on 11-Oct-17
1709567-12RE1	Hg-CVAFS-S-7474	29			From F710271 by BC on 11-Oct-17
1709567-13RE1	Hg-CVAFS-S-7474	30			From F710271 by BC on 11-Oct-17
1709567-14RE1	Hg-CVAFS-S-7474	31			From F710271 by BC on 11-Oct-17
7J16020-CCV2	QC	32	1705628		
7J16020-CCB2	QC	33			
1709567-15RE1	Hg-CVAFS-S-7474	34			From F710271 by BC on 11-Oct-17
1709568-01RE2	Hg-CVAFS-S-7474	35			From F710271 by BC on 11-Oct-17

Due Date: 10/19/2017

87 of 110

Page 1 of 2

ANALYSIS SEQUENCE

7J16020

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709568-02RE1	Hg-CVAFS-S-7474	36			From F710271 by BC on 11-Oct-17
1709568-03RE1	Hg-CVAFS-S-7474	37			From F710271 by BC on 11-Oct-17
F710324-MS1	QC	38			
F710324-MSD1	QC	39			
F710324-MS2	QC	40			
F710324-MSD2	QC	41			
7J16020-CCV3	QC	42	1705628		
7J16020-CCB3	QC	43			

Be Cing 10/16/17
Samples Loaded By Date

Don M. Green 10/16/17
Data Processed By Date

201406
10/13/17

PREPARATION BENCH SHEET

F710324

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710324-BLK1	Blank	0.5	200					
F710324-BLK2	Blank	0.5	200					
F710324-BS1	LCS	0.5	200	1705554	40			
F710324-BSD1	LCS Dup	0.5	200	1705554	40			
F710324-MS1	Matrix Spike [1709567-02RE1]	0.5473	200	1705286	50			
F710324-MS2	Matrix Spike [1709567-09RE2]	0.5781	200	1705286	50			
F710324-MSD1	Matrix Spike Dup [1709567-02RE1]	0.542	200	1705286	50			
F710324-MSD2	Matrix Spike Dup [1709567-09RE2]	0.5789	200	1705286	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705286	THg 10,000ng/mL Primary Spiking Standard	30-Nov-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705679	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1705723	Omnitrace Hydrochloric Acid	22-Sep-20 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00
			1706063	7474 Potassium Bromate/Bromide Reagent	19-Oct-17 00:00

PREPARATION BENCH SHEET

F710324

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709566-14RE1-	MM-T2-C5-A-17_SED_036-038CM	0.5632 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709566-15RE1-	MM-T2-C5-A-17_SED_038-040CM	0.5744 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-01RE2_	MM-T2-C5-A-17_SED_000-001CM	0.5668 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-02RE1-	MM-T2-C5-A-17_SED_001-002CM	0.5692 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-03RE1-	MM-T2-C5-A-17_SED_002-003CM	0.5327-	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-04RE1-	MM-T2-C5-A-17_SED_003-004CM	0.5858-	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-05RE1-	MM-T2-C5-A-17_SED_004-005CM	0.5308 ~	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-06RE2_	MM-T2-C5-A-17_SED_005-006CM	0.5724-	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-07RE1-	MM-T2-C5-A-17_SED_006-007CM	0.5688 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-08RE2_	MM-T2-C5-A-17_SED_007-008CM	0.5316-	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-09RE2-	MM-T2-C5-A-17_SED_008-009CM	0.5445 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-10RE2-	MM-T2-C5-A-17_SED_009-010CM	0.5347-	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-11RE1_	MM-T2-C5-A-17_SED_010-011CM	0.5795 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-12RE1-	MM-T2-C5-A-17_SED_011-012CM	0.5453 ~	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-13RE1,	MM-T2-C5-A-17_SED_012-013CM	0.5813 ~	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-14RE1-	MM-T2-C5-A-17_SED_013-014CM	0.5479 ~	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-15RE1_	MM-T2-C5-A-17_SED_014-015CM	0.5775 ~	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709568-01RE2_	MM-T2-C4-B-17_SED_040-045CM	0.5549 ~	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709568-02RE1-	MM-T2-C4-B-17_SED_045-050CM	0.5785 ~	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17

PREPARATION BENCH SHEET

F710324

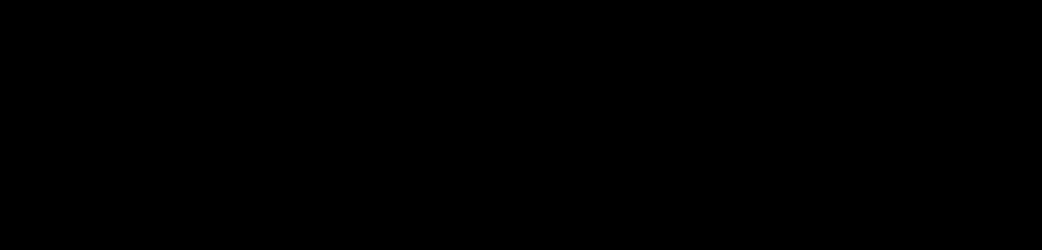
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

1709568-03RE1 -	MM-T2-C4-B-17_SED_050-055CM	0.561 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
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PREPARATION BENCH SHEET

2600-2
 BL 10/13/17

F710324

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710324-BLK1	Blank	0.5	200					10X
F710324-BLK2	Blank	0.5	200					10X
F710324-BS1	LCS	0.5	200	1705554	40			10X
F710324-BSD1	LCS Dup	0.5	200	1705554	40			10X
F710324-MS1	Matrix Spike [1709567-02RE1]	0.5473	200	1705286	50			400X
F710324-MS2	Matrix Spike [1709567-09RE2]	0.5781	200	1705286	50			400X
F710324-MSD1	Matrix Spike Dup [1709567-02RE1]	0.542	200	1705286	50			400X
F710324-MSD2	Matrix Spike Dup [1709567-09RE2]	0.5789	200	1705286	50			400X

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
1705286	THg 10,000ng/mL Primary Spiking Standard	30-Nov-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705679	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1705723	Omnitrace Hydrochloric Acid	22-Sep-20 00:00
			1706063	7474 Potassium Bromate/Bromide Reagent	19-Oct-17 00:00

10X = 5ml
 400X = 125ul
 100X = ~~125~~ 500ul

16056'
 1705610
 1705611
 1705961
 1703182

PREPARATION BENCH SHEET

2600-2
BC 10/13/17

F710324

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709566-14RE1	MM-T2-C5-A-17_SED_036-038CM	0.5632	200	-	-	-	From F710271 by BC on 11-Oct-17 10X	From F710271 by BC on 11-Oct-17
1709566-15RE1	MM-T2-C5-A-17_SED_038-040CM	0.5744	200	-	-	-	From F710271 by BC on 11-Oct-17 10X	From F710271 by BC on 11-Oct-17
1709567-01RE2	MM-T2-C5-A-17_SED_000-001CM	0.5668	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-02RE1	MM-T2-C5-A-17_SED_001-002CM	0.5692	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-03RE1	MM-T2-C5-A-17_SED_002-003CM	0.5327	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-04RE1	MM-T2-C5-A-17_SED_003-004CM	0.5858	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-05RE1	MM-T2-C5-A-17_SED_004-005CM	0.5308	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-06RE2	MM-T2-C5-A-17_SED_005-006CM	0.5724	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-07RE1	MM-T2-C5-A-17_SED_006-007CM	0.5688	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-08RE2	MM-T2-C5-A-17_SED_007-008CM	0.5316	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-09RE2	MM-T2-C5-A-17_SED_008-009CM	0.5445	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-10RE2	MM-T2-C5-A-17_SED_009-010CM	0.5347	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-11RE1	MM-T2-C5-A-17_SED_010-011CM	0.5795	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-12RE1	MM-T2-C5-A-17_SED_011-012CM	0.5453	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-13RE1	MM-T2-C5-A-17_SED_012-013CM	0.5813	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-14RE1	MM-T2-C5-A-17_SED_013-014CM	0.5479	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-15RE1	MM-T2-C5-A-17_SED_014-015CM	0.5775	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709568-01RE2	MM-T2-C4-B-17_SED_040-045CM	0.5549	200	-	-	-	From F710271 by BC on 11-Oct-17 10X	From F710271 by BC on 11-Oct-17
1709568-02RE1	MM-T2-C4-B-17_SED_045-050CM	0.5785	200	-	-	-	From F710271 by BC on 11-Oct-17 10X	From F710271 by BC on 11-Oct-17

Due Date: 10/19/2017

PREPARATION BENCH SHEET

2600-2
BC 10/13/17

F710324

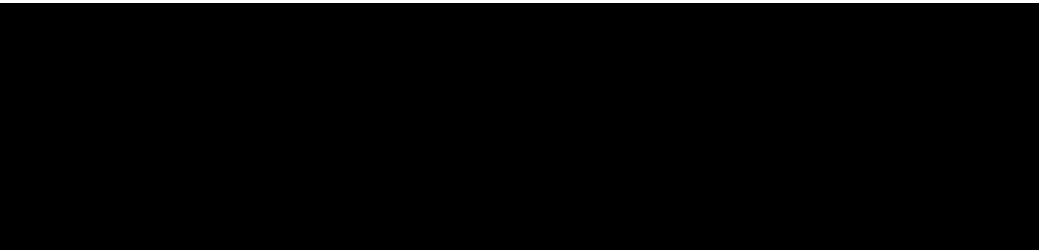
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

1709568-03RE1	MM-T2-C4-B-17_SED_050-055CM	0.561	200	-	-	-	From F710271 by BC on 11-Oct-17 10X	From F710271 by BC on 11-Oct-17
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Technician: Duyen Batch#: F710324 Date: 10/12/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA 7474
 Balance#: 19 Calibrated? Yes No Therm.#: N/A Vial Type: Glass Teflon
 *Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C Calibrated? Yes No
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 *Time in can't begin before target temperature is reached

Final vol.: 25 mL (LIMS ID: R0420) Spike vol.: 40uL ^{B5(B50)} (LIMS ID: 1705554)
 Spike Witness: Cme 10/12/17 (initial and date)

HCl LIMS ID: 1705723 Pipette SN#: 0007852 Calibration Date: 10-09-17
 HNO₃ LIMS ID: 1705679 Pipette SN#: 0007693 Calibration Date: 10-9-17
 70/30 LIMS ID: N/A Dispenser #: 09N45351 Calibrated? Yes No
 Other Acid LIMS ID: 1706063 Dispenser #: 12407691 Yes No
 Glass Vial # J264713-302 Boiling Chip lot # 1704424 *Hotblock Position: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial # <u>10/14/17</u>	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F710324 Blk1	0.5257	238	1709567-13R21	0.5813	
2	F710324 Blk2	0.5086	249	1709567-14R21	0.5479	
3	F710324 B51	0.5051	2510	1709567-15R21	0.5775	
4	F710324 B501	0.5627	2611	1709568-01R22	0.5549	Comments
5	1709566-14R21	0.5632	2712	1709568-02R21	0.5785	F710324
6	1709566-15R21	0.5744	2813	1709568-03R21	0.5610	Source
7	1709567-01R21	0.5668	29			1709567-02
8	1709567-02R21	0.5692	30			MS1 MS01
9	F710324-MS1	0.5473	31			F710324
10	F710324-MS01	0.5420	32			MS2 MS02
11	1709567-03R21	0.5327	33			1709567-09
12	1709567-04R21	0.5858	34			F710324
13	1709567-05R21	0.5308	35			All spike
14	1709567-06R22	0.5724	36			MS1 MS01 MS2 MS02
15	1709567-07R21	0.5688	37			= 10,000 µg/L
16	1709567-08R22	0.5316	38			= 500 µg/L
17	1709567-09R22	0.5445	39			1705286
18	F710324-MS2	0.5781	40			10-12-17 us
19	F710324-MS02	0.5789	41			
20	1709567-10R22	0.5347	42			
21	1709567-11R21	0.5795	43			
22	1709567-12R21	0.5453	44			

ANALYSIS SEQUENCE

7J16021

QUALITY ASSURANCE
PEER-REVIEWEDINITIALS: DMW 10-10-17
Analyzed: 10/13/2017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J16021-IBL1	QC	1			
7J16021-IBL2	QC	2			
7J16021-IBL3	QC	3			
7J16021-CAL1	QC	4	1704505		
7J16021-CAL2	QC	5	1704506		
7J16021-CAL3	QC	6	1704507		
7J16021-CAL4	QC	7	1704508		
7J16021-CAL5	QC	8	1704509		
7J16021-ICV1	QC	9	1705628		
7J16021-CCV1	QC	10	1705628		
7J16021-CCB1	QC	11			
7J16021-CCV2	QC	12	1705628		
7J16021-CCB2	QC	13			
7J16021-CCV3	QC	14	1705628		
7J16021-CCB3	QC	15			
7J16021-CCV4	QC	16	1705628		
7J16021-CCB4	QC	17			
7J16021-CCV5	QC	18	1705628		
7J16021-CCB5	QC	19			
7J16021-CCV6	QC	20	1705628		
7J16021-CCB6	QC	21			
F710214-BLK1	QC	22			
F710214-BLK2	QC	23			
F710214-BLK3	QC	24			
F710214-BLK4	QC	25			
F710214-BLK5	QC	26			
F710214-BS1	QC	27			
7J16021-CCV7	QC	28	1705628		
7J16021-CCB7	QC	29			
F710214-BSD1	QC	30			
F710214-BS2	QC	31			
1709618-01	Hg-CVAFS-T-7030	32			
1709618-02	Hg-CVAFS-T-7030	33			
1709618-03	Hg-CVAFS-T-7030	34			
1709618-04	Hg-CVAFS-T-7030	35			

Due Date: 10/20/2017

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Page 1 of 2

ANALYSIS SEQUENCE

7J16021

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709618-05	Hg-CVAFS-T-7030	36			
1709618-06	Hg-CVAFS-T-7030	37			
7J16021-CCV8	QC	38	1705628		
7J16021-CCB8	QC	39			
F710214-DUP1	QC	40			
F710214-MS1	QC	41			
F710214-MSD1	QC	42			
F710214-MS2	QC	43			
F710214-MSD2	QC	44			
1709618-04RE1	Hg-CVAFS-T-7030	45			Added 10/16/2017 by DM2
1709618-05RE1	Hg-CVAFS-T-7030	46			Added 10/16/2017 by DM2
1709619-03	Hg-CVAFS-T-7030	47			
1709619-04	Hg-CVAFS-T-7030	48			
1709619-05	Hg-CVAFS-T-7030	49			
7J16021-CCV9	QC	50	1705628		
7J16021-CCB9	QC	51			



Be Cj 10/16/17
 Samples Loaded By Date


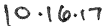
Don M. [Signature] 10/16/17
 Data Processed By Date

loaded
 10/13/17

Failing Data Report - 7J16021

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1709618-04	Hg-CVAFS-T-7030	156	1.86				ng/g						FAIL-OVER	PASS	E


 Analyst Reviewed By _____

 Date _____


 Peer Reviewed By _____

 Date _____

PREPARATION BENCH SHEET

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710214-BLK1 -	Blank	0.25	20					
F710214-BLK2 -	Blank	0.25	20					
F710214-BLK3 -	Blank	0.25	20					
F710214-BLK4 -	Blank	0.276 -	20					Pre-homogenization Blanks for 1709617-1709618
F710214-BLK5 -	Blank	0.263 -	20					Pre-homogenization Blanks for 1709617-1709618
F710214-BLK6	Blank	0.5	40					
F710214-BLK7	Blank	0.5	40					
F710214-BLK8	Blank	0.5	40					
F710214-BS1 -	LCS	0.25	20	1704421	20			
F710214-BS2 -	DORM4	0.1268	20	1705412	126.8			
F710214-BSD1 -	LCS Dup	0.25	20	1704421	20			
F710214-DUP1 -	Duplicate [1709618-01] -	0.253 -	20					
F710214-MS1 -	Matrix Spike [1709618-01] -	0.263 -	20	1705554	100			
F710214-MS2 -	Matrix Spike [1709618-02] -	0.262 -	20	1705554	100			
F710214-MSD1 -	Matrix Spike Dup [1709618-01] -	0.26 -	20	1705554	100			
F710214-MSD2 -	Matrix Spike Dup [1709618-02] -	0.279 -	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551 -	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182 -	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610 -	THg Washstation (0.5% BrCl)	
			1705611 -	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705859 -	70/30 Digestion Acid	28-Mar-18 00:00
			1705915 -	5% BrCl	14-Mar-18 00:00
			1705961 -	3% SnCl2 THg reductant	25-Mar-18 00:00

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709618-01 -	OB-01_17MT001_091817_MUM_01_WB	0.275 -	20	QC	-	-	MS/MSD	
1709618-02 -	OB-01_17MT002_091817_MUM_02_WB	0.276 -	20	-	-	-		
1709618-03 -	OB-01_17MT002_091817_MUM_03_WB	0.254 -	20	-	-	-		
1709618-04 -	OB-01_17MT002_091817_MUM_04_WB	0.269 -	20	-	-	-		
1709618-04RE1	OB-01_17MT002_091817_MUM_04_WB	0.269	20	-	-	-	Added 10/16/2017 by DM2	Added 10/16/2017 by DM2
1709618-05 -	OB-01_17MT002_091817_MUM_05_WB	0.257 -	20	-	-	-		
1709618-05RE1	OB-01_17MT002_091817_MUM_05_WB	0.257	20	-	-	-	Added 10/16/2017 by DM2	Added 10/16/2017 by DM2
1709618-06 -	OB-01_17MT002_091817_MUM_06_WB	0.281 -	20	-	-	-		
1709618-07 -	OB-01_17MT002_091817_MUM_07_WB	0.257 -	20	-	-	-		
1709618-08 -	OB-01_17MT002_091817_MUM_08_WB	0.254 -	20	-	-	-		
1709618-08RE1	OB-01_17MT002_091817_MUM_08_WB	0.254	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-09 -	OB-01_17MT001_091917_MUM_09_WB	0.279 -	20	-	-	-		
1709618-10 -	OB-01_17MT001_091917_MUM_10_WB	0.258 -	20	-	-	-		
1709618-10RE1	OB-01_17MT001_091917_MUM_10_WB	0.258	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-11 -	OB-01_17MT001_091917_MUM_11_WB	0.251 -	20	-	-	-		
1709618-11RE1	OB-01_17MT001_091917_MUM_11_WB	0.251	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-12 -	OB-01_17MT001_091917_MUM_12_WB	0.274 -	20	-	-	-		
1709618-13 -	OB-01_17MT001_091917_MUM_13_WB	0.255 -	20	-	-	-		
1709618-14 -	OB-01_17MT002_091917_MUM_14_WB	0.272 -	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710214

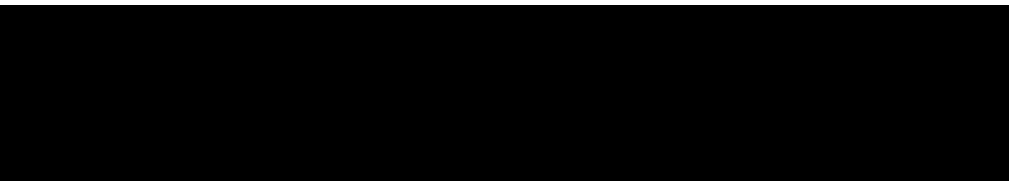
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709618-14RE1	OB-01_17MT002_091917_MUM_14_WB	0.272	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-15_	OB-01_17MT002_091917_MUM_15_WB	0.259_	20	-	-	-		
1709618-15RE1	OB-01_17MT002_091917_MUM_15_WB	0.259	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709619-01 -	OB-05_17SN001_091517_MUM_01_WB	0.278 -	20	-	-	-		
1709619-01RE1	OB-05_17SN001_091517_MUM_01_WB	0.278	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709619-02 _	OB-05_17SN001_091517_MUM_02_WB	0.255 _	20	-	-	-		
1709619-02RE1	OB-05_17SN001_091517_MUM_02_WB	0.255	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709619-03 ✓	OB-05_17SN001_091517_MUM_03_WB	0.282 _	20	-	-	-		
1709619-04 _	OB-05_17SN001_091517_MUM_04_WB	0.265_	20	-	-	-		
1709619-05 ~	OB-05_17SN001_091517_MUM_05_WB	0.275_	20	-	-	-		



PREPARATION BENCH SHEET

2600-2
Bc 10/13/17

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710214-BLK1	Blank	0.25	20					
F710214-BLK2	Blank	0.25	20					20X
F710214-BLK3	Blank	0.25	20					20X
F710214-BLK4	Blank	0.276	20					20X
F710214-BLK5	Blank	0.263	20					Pre-homogenization Blanks for 1709617-1709618 20X
F710214-BS1	LCS	0.25	20	1704421	20			20X
F710214-BS2	DORM4	0.1268	20	1705412	126.8			400X
F710214-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710214-DUP1	Duplicate [1709618-01]	0.253	20					50X
F710214-MS1	Matrix Spike [1709618-01]	0.263	20	1705554	100			400X
F710214-MS2	Matrix Spike [1709618-02]	0.262	20	1705554	100			400X
F710214-MSD1	Matrix Spike Dup [1709618-01]	0.26	20	1705554	100			400X
F710214-MSD2	Matrix Spike Dup [1709618-02]	0.279	20	1705554	100			400X

Standard ID(s): Description:
 1704421 THg 100ng/mL Primary Spiking Standard
 1705412 DORM-4
 1705554 THg 1,000ng/mL Secondary Spiking Standard

Expiration:
 21-Oct-17 00:00
 06-Jan-20 00:00
 18-Mar-18 00:00

Reagent ID(s): Description:
 1702551 Boiling Chips for AFS prep
 1705859 70/30 Digestion Acid
 1705915 5% BrCl

Expiration:
 31-Dec-17 00:00
 28-Mar-18 00:00
 14-Mar-18 00:00

20X = 2.5mL
 400X = 125µL
 50X = 1 mL

~~1605611~~ 1705610
~~1605610~~ 1705611
~~1605961~~ 1705961
 1703182

Due Date: 10/20/2017

2600-2
 RL 10/13/17

PREPARATION BENCH SHEET

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709618-01	OB-01_17MT001_091817_MUM_01_WB	0.275	20	QC	-	-	MS/MSD 50X	
1709618-02	OB-01_17MT002_091817_MUM_02_WB	0.276	20	-	-	-	50X	
1709618-03	OB-01_17MT002_091817_MUM_03_WB	0.254	20	-	-	-	50X	
1709618-04	OB-01_17MT002_091817_MUM_04_WB	0.269	20	-	-	-	50X → 100X	
1709618-05	OB-01_17MT002_091817_MUM_05_WB	0.257	20	-	-	-	50X → 50X	
1709618-06	OB-01_17MT002_091817_MUM_06_WB	0.281	20	-	-	-	50X	
1709618-07	OB-01_17MT002_091817_MUM_07_WB	0.257	20	-	-	-		
1709618-08	OB-01_17MT002_091817_MUM_08_WB	0.254	20	-	-	-		
1709618-09	OB-01_17MT001_091917_MUM_09_WB	0.279	20	-	-	-		
1709618-10	OB-01_17MT001_091917_MUM_10_WB	0.258	20	-	-	-		
1709618-11	OB-01_17MT001_091917_MUM_11_WB	0.251	20	-	-	-		
1709618-12	OB-01_17MT001_091917_MUM_12_WB	0.274	20	-	-	-		
1709618-13	OB-01_17MT001_091917_MUM_13_WB	0.255	20	-	-	-		
1709618-14	OB-01_17MT002_091917_MUM_14_WB	0.272	20	-	-	-		
1709618-15	OB-01_17MT002_091917_MUM_15_WB	0.259	20	-	-	-		
1709619-01	OB-05_17SN001_091517_MUM_01_WB	0.278	20	-	-	-		
1709619-02	OB-05_17SN001_091517_MUM_02_WB	0.255	20	-	-	-		
1709619-03	OB-05_17SN001_091517_MUM_03_WB	0.282	20	-	-	-	400X	
1709619-04	OB-05_17SN001_091517_MUM_04_WB	0.265	20	-	-	-	400X	

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-3
bc 10/13/17

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709619-05	OB-05_17SN001_091517_MUM_05_WB	0.275	20	-	-	-	409x	
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Technician: WTF Batch#: F710214 Date: 10/4/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19(DORMY) Calibrated? Yes No Therm.#: 140118012 Calibrated? Yes No

*Time in: 17:00 Actual Temp. (raw): 80.2 °C w/ CF: 79.7 °C

Time out: 19:00 Actual Temp. (raw): Timed °C w/ CF: Timer °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705915) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: DM 10/4/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: mmbl9 Calibration Date: 16/2/17
 HNO₃ LIMS ID: NA Pipette SN#: NA Calibration Date: NA
 70/30 LIMS ID: 1705551 Dispenser #: 0262749 Calibrated? Yes No
 Other Acid LIMS ID: NA Dispenser #: 15406623
 Glass Vial # 00063642 Boiling Chip lot # 1702551 *Hotblock Position: MS

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F710214 - BLK1	0.266	23	1709618 - 12	0.274	BS2 = DORMY EFMS: 1705112
2	F710214 - BLK2	0.266	24	1709618 - 13	0.255	
3	F710214 - BLK3	0.287	25	1709618 - 14	0.272	
4	F710214 - BS1	0.275	26	1709618 - 15	0.259	Comments
5	F710214 - BSD1	0.269	27	1709619 - 01	0.278	DUP1/MS1/MSD1 source: 1709618-01
6	F710214 - BS2	0.1268	28	1709619 - 02	0.255	MS2/MSD2 source: 1709618-02
7	1709618 - 01	0.275	29	1709619 - 03	0.282	
8	F710214 - DUP1	0.253	30	1709619 - 04	0.265	BS1/BSD1 spiked with 20µL of 1709618
9	F710214 - MS1	0.263	31	1709619 - 05	0.275	
10	F710214 - MSD1	0.260	32			BLK4+5 are Pre/Post Blanks for 1709618-617 WTF 10/5/17
11	1709618 - 02	0.276	33			
12	F710214 - MS2	0.262	34			
13	F710214 - MSD2	0.279	35			
14	1709618 - 03	0.254	36			
15	1709618 - 04	0.269	37			
16	1709618 - 05	0.257	38			
17	1709618 - 06	0.281	39			
18	1709618 - 07	0.257	40			
19	1709618 - 08	0.254	41			
20	1709618 - 09	0.279	42			
21	1709618 - 10	0.258	43			
22	1709618 - 11	0.251	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7J16021, 7J16020, 7J16019
Reviewer:	0 <i>DMW</i>	Dataset ID(s):	THG2002-171013-1
Date:	10/16/2017	WO (s) #:	VARIOUS
Batch #(s):	F710345, F710324, F710214		0

Analyst Initials DMW Reviewer Initials DMW

5b. Has the B/C section data been uploaded?

YES NO N/A

QA/QC Data Checked

6. RSD CF (≤ 15%)

PASS FAIL

Comments: _____

7. The calibration curve included a minimum of 5 Standards

YES NO

Comments: _____

8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)

PASS FAIL

9. ICV and CCV % Recoveries EPA 1631E (77-123%)

PASS FAIL

Comments: _____

10. Do all calibration points pass acceptance criteria?

YES NO

Comments: _____

11. Are qualifiers consistent with the data review flowcharts?

YES NO N/A

Comments: _____

12. Explain any items on the failed data report from Element

DMW 10-16-17

Comments: ~~1710359-02, 1709618-04 HIGH SAMPLES. OFF CURVE. F710345-M61, MSD1 FAILED. SOURCE WAS A BLANK. RE-ANALYZED.~~

13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list)

PASS FAIL

(a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:

(b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?

YES NO

(c) Was a BrCl Blank analyzed for each preservation level?

YES NO N/A

(d) Are Preparation Blanks summarized on QC page?

YES NO

14. Filtration Blank Prepared (if yes, use FB qualifier)

YES NO

(a) Filtration Blank prep date same as associated samples' prep date

YES NO N/A

(b) Filtration Blank absolute value < PQL or <2.2xMDL for WI

YES NO N/A

15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?

PASS FAIL

Comments: _____

16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?

PASS FAIL

Comments: _____

17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)

YES NO N/A

18. Is the correct 'Source' designated for MD/MS/MSD?

YES NO

19. For digested preps: was there a spike witness signature & date on the prep bench sheet?

YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7J16021, 7J16020, 7J16019
Reviewer:	0 <i>DMW</i>	Dataset ID(s):	THG2002-171013-1
Date:	10/16/2017	WO (s) #:	VARIOUS
Batch #(s):	F710345, F710324, F710214		0

Analyst Initials *DM* Reviewer Initials *DMW*

- | | | | |
|--|--|--|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input checked="" type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | <i>DMW</i> | <i>10-16-17</i> |
| 25. Are re-runs noted with reason? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs

- | | | | |
|---|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: <u>1-11-17, 1-27-17</u> IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: <u>5-20-17</u> Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>4/26/17, 7/28/17</u> LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>4/26/17, 7/28/17</u> LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709619

PO#

C012505850

October 21, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709619

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October 21, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OB-05_17SN001_091517_MUM_01_WB	1709619-01	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_02_WB	1709619-02	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_03_WB	1709619-03	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_04_WB	1709619-04	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_05_WB	1709619-05	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_06_WB	1709619-06	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_07_WB	1709619-07	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_08_WB	1709619-08	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_09_WB	1709619-09	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_10_WB	1709619-10	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_11_WB	1709619-11	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_12_WB	1709619-12	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_13_WB	1709619-13	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_14_WB	1709619-14	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_15_WB	1709619-15	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_16_WB	1709619-16	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_17_WB	1709619-17	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_18_WB	1709619-18	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_19_WB	1709619-19	Tissue	15-Sep-17 12:20	22-Sep-17 10:25
OB-05_17SN001_091517_MUM_20_WB	1709619-20	Tissue	15-Sep-17 12:20	22-Sep-17 10:25

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Project Number: 3616166052.04A.05
Project Manager: Denise King**Reported:**
21-Oct-17 13:37

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM. The samples were received intact, on-ice within two sealed coolers at -27.1 and -21.6 degrees Celsius.

Client requested Lipids Analysis by NOAA 1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches; F710214 and F710215. Samples 1709619-06 and 1709619-07 were used as the QC source in batch F710215. These samples were analyzed in three sequences; 7J16015, 7J16021, and 7J18020.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

Client: AMEC Foster Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/22/17 Labeled By: LSF

Project: _____

Received By: LM Label Verified By: Ban

of Coolers Received: 2 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>170404186</u> CF: <u>10.1</u> °C	Date/time: <u>9/22/17 10:25</u> By: <u>LM</u>
Cooler 1: <u>-27.2</u> °C w/CF: <u>-27.12</u> °C	Cooler 4: _____ °C w/CF: _____ °C
Cooler 2: <u>-21.73</u> °C w/CF: <u>-21.63</u> °C	Cooler 5: _____ °C w/CF: _____ °C
Cooler 3: _____ °C w/CF: _____ °C	Cooler 6: _____ °C w/CF: _____ °C

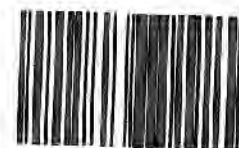
Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	Y	
Preservation type:	Y	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4846 Cooler 2: 7878 1037 1884

1709619





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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

OB-05_17SN001_091517_MUM_01_WB
1709619-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	150	0.403	3.60	ng/g	100	F710214	04-Oct-17	7J16015	13-Oct-17	EPA 1631B	
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

OB-05_17SN001_091517_MUM_02_WB
1709619-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	114	0.439	3.92	ng/g	100	F710214	04-Oct-17	7J16015	13-Oct-17	EPA 1631B	



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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

OB-05_17SN001_091517_MUM_03_WB
1709619-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	121	1.59	14.2	ng/g	400	F710214	04-Oct-17	7J16021	13-Oct-17	EPA 1631B	

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Amy Goodall, Project Manager



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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

OB-05_17SN001_091517_MUM_04_WB
1709619-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	117	1.69	15.1	ng/g	400	F710214	04-Oct-17	7J16021	13-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

OB-05_17SN001_091517_MUM_05_WB
1709619-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	65.2	1.63	14.5	ng/g	400	F710214	04-Oct-17	7J16021	13-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

OB-05_17SN001_091517_MUM_06_WB
1709619-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	76.5	0.400	3.57	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

OB-05_17SN001_091517_MUM_07_WB
1709619-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	71.5	0.441	3.94	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

OB-05_17SN001_091517_MUM_08_WB
1709619-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	77.6	0.426	3.80	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project Manager: Denise King

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OB-05_17SN001_091517_MUM_09_WB
1709619-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	74.1	0.444	3.97	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project Manager: Denise King

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21-Oct-17 13:37

OB-05_17SN001_091517_MUM_10_WB
1709619-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	74.6	0.432	3.86	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

**OB-05_17SN001_091517_MUM_11_WB
1709619-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	77.1	0.427	3.82	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.05
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Reported:
21-Oct-17 13:37

OB-05_17SN001_091517_MUM_12_WB
1709619-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	80.8	0.432	3.86	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

OB-05_17SN001_091517_MUM_13_WB
1709619-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	76.9	0.418	3.73	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

OB-05_17SN001_091517_MUM_14_WB
1709619-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	81.3	0.412	3.68	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

**OB-05_17SN001_091517_MUM_15_WB
1709619-15**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	77.6	0.429	3.83	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

OB-05_17SN001_091517_MUM_16_WB
1709619-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	65.0	0.427	3.82	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	



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Reported:
21-Oct-17 13:37

OB-05_17SN001_091517_MUM_17_WB
1709619-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	66.5	0.423	3.77	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

**OB-05_17SN001_091517_MUM_18_WB
1709619-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	69.9	0.416	3.72	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

OB-05_17SN001_091517_MUM_19_WB
1709619-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	76.5	0.439	3.92	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

OB-05_17SN001_091517_MUM_20_WB
1709619-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	62.6	0.427	3.82	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.05 Project Manager: Denise King	Reported: 21-Oct-17 13:37
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J16015 - F710214											
Cal Standard (7J16015-CAL1)						Prepared & Analyzed: 13-Oct-17					
Mercury	0.517	-		ng/L	0.50100		103				
Cal Standard (7J16015-CAL2)						Prepared & Analyzed: 13-Oct-17					
Mercury	1.009	-		ng/L	1.0020		101				
Cal Standard (7J16015-CAL3)						Prepared & Analyzed: 13-Oct-17					
Mercury	4.953	-		ng/L	5.0100		98.9				
Cal Standard (7J16015-CAL4)						Prepared & Analyzed: 13-Oct-17					
Mercury	19.68	-		ng/L	20.040		98.2				
Cal Standard (7J16015-CAL5)						Prepared & Analyzed: 13-Oct-17					
Mercury	39.34	-		ng/L	40.080		98.2				
Calibration Blank (7J16015-CCB1)						Prepared & Analyzed: 13-Oct-17					
Mercury	0.083	-		ng/L							
Calibration Blank (7J16015-CCB2)						Prepared & Analyzed: 13-Oct-17					
Mercury	0.084	-		ng/L							
Calibration Blank (7J16015-CCB3)						Prepared & Analyzed: 13-Oct-17					
Mercury	0.106	-		ng/L							
Calibration Blank (7J16015-CCB4)						Prepared & Analyzed: 13-Oct-17					
Mercury	0.058	-		ng/L							
Calibration Blank (7J16015-CCB5)						Prepared & Analyzed: 13-Oct-17					
Mercury	0.103	-		ng/L							

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.05 Project Manager: Denise King	Reported: 21-Oct-17 13:37
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J16015 - F710214											
Calibration Blank (7J16015-CCB6) Prepared & Analyzed: 13-Oct-17											
Mercury	0.114	-		ng/L							
Calibration Blank (7J16015-CCB7) Prepared & Analyzed: 13-Oct-17											
Mercury	0.118	-		ng/L							
Calibration Blank (7J16015-CCB8) Prepared & Analyzed: 13-Oct-17											
Mercury	0.236	-		ng/L							
Calibration Blank (7J16015-CCB9) Prepared & Analyzed: 13-Oct-17											
Mercury	0.183	-		ng/L							
Calibration Check (7J16015-CCV1) Prepared & Analyzed: 13-Oct-17											
Mercury	4.876	-		ng/L	5.0000		97.5	77-123			
Calibration Check (7J16015-CCV2) Prepared & Analyzed: 13-Oct-17											
Mercury	4.887	-		ng/L	5.0000		97.7	77-123			
Calibration Check (7J16015-CCV3) Prepared & Analyzed: 13-Oct-17											
Mercury	4.976	-		ng/L	5.0000		99.5	77-123			
Calibration Check (7J16015-CCV4) Prepared & Analyzed: 13-Oct-17											
Mercury	4.910	-		ng/L	5.0000		98.2	77-123			
Calibration Check (7J16015-CCV5) Prepared & Analyzed: 13-Oct-17											
Mercury	4.903	-		ng/L	5.0000		98.1	77-123			
Calibration Check (7J16015-CCV6) Prepared & Analyzed: 13-Oct-17											
Mercury	4.943	-		ng/L	5.0000		98.9	77-123			

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AMEC Foster Wheeler
271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J16015 - F710214

Calibration Check (7J16015-CCV7) Prepared & Analyzed: 13-Oct-17

Mercury	4.925	-		ng/L	5.0000		98.5	77-123			
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Calibration Check (7J16015-CCV8) Prepared & Analyzed: 13-Oct-17

Mercury	5.100	-		ng/L	5.0000		102	77-123			
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Calibration Check (7J16015-CCV9) Prepared & Analyzed: 13-Oct-17

Mercury	4.958	-		ng/L	5.0000		99.2	77-123			
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Instrument Blank (7J16015-IBL1) Prepared & Analyzed: 13-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J16015-IBL2) Prepared & Analyzed: 13-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J16015-IBL3) Prepared & Analyzed: 13-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7J16015-ICV1) Prepared & Analyzed: 13-Oct-17

Mercury	5.099	-		ng/L	5.0000		102	79-121			
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Batch 7J16021 - F710214

Cal Standard (7J16021-CAL1) Prepared & Analyzed: 13-Oct-17

Mercury	0.496	-		ng/L	0.50100		98.9				
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Cal Standard (7J16021-CAL2) Prepared & Analyzed: 13-Oct-17

Mercury	1.076	-		ng/L	1.0020		107				
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271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J16021 - F710214

Cal Standard (7J16021-CAL3)					Prepared & Analyzed: 13-Oct-17						
Mercury	4.921	-		ng/L	5.0100		98.2				
Cal Standard (7J16021-CAL4)					Prepared & Analyzed: 13-Oct-17						
Mercury	19.71	-		ng/L	20.040		98.4				
Cal Standard (7J16021-CAL5)					Prepared & Analyzed: 13-Oct-17						
Mercury	38.51	-		ng/L	40.080		96.1				
Calibration Blank (7J16021-CCB1)					Prepared & Analyzed: 13-Oct-17						
Mercury	0.068	-		ng/L							
Calibration Blank (7J16021-CCB2)					Prepared & Analyzed: 13-Oct-17						
Mercury	0.080	-		ng/L							
Calibration Blank (7J16021-CCB3)					Prepared & Analyzed: 13-Oct-17						
Mercury	0.048	-		ng/L							
Calibration Blank (7J16021-CCB4)					Prepared & Analyzed: 13-Oct-17						
Mercury	0.099	-		ng/L							
Calibration Blank (7J16021-CCB5)					Prepared & Analyzed: 13-Oct-17						
Mercury	0.037	-		ng/L							
Calibration Blank (7J16021-CCB6)					Prepared & Analyzed: 13-Oct-17						
Mercury	0.156	-		ng/L							
Calibration Blank (7J16021-CCB7)					Prepared & Analyzed: 13-Oct-17						
Mercury	0.074	-		ng/L							

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Project Number: 3616166052.04A.05
Project Manager: Denise King

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21-Oct-17 13:37

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J16021 - F710214

Calibration Blank (7J16021-CCB8)											
Prepared & Analyzed: 13-Oct-17											
Mercury	0.204	-		ng/L							
Calibration Blank (7J16021-CCB9)											
Prepared & Analyzed: 13-Oct-17											
Mercury	0.152	-		ng/L							
Calibration Check (7J16021-CCV1)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.825	-		ng/L	5.0000		96.5	77-123			
Calibration Check (7J16021-CCV2)											
Prepared & Analyzed: 13-Oct-17											
Mercury	5.019	-		ng/L	5.0000		100	77-123			
Calibration Check (7J16021-CCV3)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.816	-		ng/L	5.0000		96.3	77-123			
Calibration Check (7J16021-CCV4)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.772	-		ng/L	5.0000		95.4	77-123			
Calibration Check (7J16021-CCV5)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.852	-		ng/L	5.0000		97.0	77-123			
Calibration Check (7J16021-CCV6)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.853	-		ng/L	5.0000		97.1	77-123			
Calibration Check (7J16021-CCV7)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.781	-		ng/L	5.0000		95.6	77-123			
Calibration Check (7J16021-CCV8)											
Prepared & Analyzed: 13-Oct-17											
Mercury	4.988	-		ng/L	5.0000		99.8	77-123			

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Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J16021 - F710214

Calibration Check (7J16021-CCV9)

Prepared & Analyzed: 13-Oct-17

Mercury	4.926	-		ng/L	5.0000		98.5	77-123			
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Instrument Blank (7J16021-IBL1)

Prepared & Analyzed: 13-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J16021-IBL2)

Prepared & Analyzed: 13-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7J16021-IBL3)

Prepared & Analyzed: 13-Oct-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7J16021-ICV1)

Prepared & Analyzed: 13-Oct-17

Mercury	4.972	-		ng/L	5.0000		99.4	79-121			
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Batch 7J18020 - F710291

Cal Standard (7J18020-CAL1)

Prepared: 17-Oct-17 Analyzed: 18-Oct-17

Mercury	0.498	-		ng/L	0.50100		99.5				
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Cal Standard (7J18020-CAL2)

Prepared: 17-Oct-17 Analyzed: 18-Oct-17

Mercury	1.042	-		ng/L	1.0020		104				
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Cal Standard (7J18020-CAL3)

Prepared: 17-Oct-17 Analyzed: 18-Oct-17

Mercury	5.049	-		ng/L	5.0100		101				
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Cal Standard (7J18020-CAL4)

Prepared: 17-Oct-17 Analyzed: 18-Oct-17

Mercury	19.83	-		ng/L	20.040		99.0				
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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J18020 - F710291

Cal Standard (7J18020-CAL5)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	38.38	-		ng/L	40.080		95.8				
Calibration Blank (7J18020-CCB1)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.036	-		ng/L							
Calibration Blank (7J18020-CCB2)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.051	-		ng/L							
Calibration Blank (7J18020-CCB3)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.070	-		ng/L							
Calibration Blank (7J18020-CCB4)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.053	-		ng/L							
Calibration Blank (7J18020-CCB5)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.145	-		ng/L							
Calibration Blank (7J18020-CCB6)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.085	-		ng/L							
Calibration Blank (7J18020-CCB7)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.122	-		ng/L							
Calibration Blank (7J18020-CCB8)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.155	-		ng/L							
Calibration Blank (7J18020-CCB9)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.136	-		ng/L							

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Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J18020 - F710291											
Calibration Check (7J18020-CCV1)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	4.895	-		ng/L	5.0000		97.9	77-123			
Calibration Check (7J18020-CCV2)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.022	-		ng/L	5.0000		100	77-123			
Calibration Check (7J18020-CCV3)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	4.868	-		ng/L	5.0000		97.4	77-123			
Calibration Check (7J18020-CCV4)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.199	-		ng/L	5.0000		104	77-123			
Calibration Check (7J18020-CCV5)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.228	-		ng/L	5.0000		105	77-123			
Calibration Check (7J18020-CCV6)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	4.961	-		ng/L	5.0000		99.2	77-123			
Calibration Check (7J18020-CCV7)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.106	-		ng/L	5.0000		102	77-123			
Calibration Check (7J18020-CCV8)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.130	-		ng/L	5.0000		103	77-123			
Calibration Check (7J18020-CCV9)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.090	-		ng/L	5.0000		102	77-123			
Instrument Blank (7J18020-IBL1)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J18020 - F710291

Instrument Blank (7J18020-IBL2)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J18020-IBL3)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7J18020-ICV1)					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.020	-		ng/L	5.0000		100	79-121			

Batch F710214 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710214-BLK1)					Prepared: 04-Oct-17 Analyzed: 13-Oct-17						
Mercury	0.179	0.090	0.800	ng/g							J
Blank (F710214-BLK2)					Prepared: 04-Oct-17 Analyzed: 13-Oct-17						
Mercury	0.109	0.090	0.800	ng/g							J
Blank (F710214-BLK3)					Prepared: 04-Oct-17 Analyzed: 13-Oct-17						
Mercury	0.096	0.090	0.800	ng/g							J
Blank (F710214-BLK4)					Prepared: 04-Oct-17 Analyzed: 13-Oct-17						
Mercury	ND	0.081	0.725	ng/g							U, F-03
Blank (F710214-BLK5)					Prepared: 04-Oct-17 Analyzed: 13-Oct-17						
Mercury	ND	0.085	0.760	ng/g							F-03, U
Blank (F710214-BLK6)					Prepared: 04-Oct-17 Analyzed: 13-Oct-17						
Mercury	0.163	0.090	0.800	ng/g							J

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710214 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710214-BLK7) Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	0.121	0.090	0.800	ng/g							J
Blank (F710214-BLK8) Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	0.116	0.090	0.800	ng/g							J
LCS (F710214-BS1) Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	7.800	0.090	0.800	ng/g	8.0160		97.3	75-125			
LCS (F710214-BS2) Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	345.6	3.53	31.5	ng/g	373.70		92.5	75-125			
LCS Dup (F710214-BSD1) Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	7.977	0.090	0.800	ng/g	8.0160		99.5	75-125	2.24	24	
Duplicate (F710214-DUP1) Source: 1709618-01 Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	95.75	0.221	1.98	ng/g		86.86			9.74	24	
Matrix Spike (F710214-MS1) Source: 1709618-01 Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	467.6	1.70	15.2	ng/g	380.23	86.86	100	71-125			
Matrix Spike (F710214-MS2) Source: 1709618-02 Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	458.2	1.71	15.3	ng/g	381.68	86.13	97.5	71-125			
Matrix Spike Dup (F710214-MSD1) Source: 1709618-01 Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	458.9	1.72	15.4	ng/g	384.62	86.86	96.7	71-125	3.45	24	
Matrix Spike Dup (F710214-MSD2) Source: 1709618-02 Prepared: 04-Oct-17 Analyzed: 13-Oct-17											
Mercury	438.2	1.61	14.3	ng/g	358.42	86.13	98.2	71-125	0.769	24	

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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710215 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710215-BLK1) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	0.133	0.090	0.800	ng/g							J
Blank (F710215-BLK2) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	0.097	0.090	0.800	ng/g							J
Blank (F710215-BLK3) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	0.189	0.090	0.800	ng/g							J
Blank (F710215-BLK4) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	ND	0.084	0.752	ng/g							F-03, U
Blank (F710215-BLK5) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	ND	0.087	0.775	ng/g							F-03, U
Blank (F710215-BLK6) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	ND	0.081	0.725	ng/g							F-03, U
Blank (F710215-BLK7) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	ND	0.089	0.794	ng/g							F-03, U
LCS (F710215-BS1) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	7.846	0.090	0.800	ng/g	8.0160		97.9	75-125			
LCS (F710215-BS2) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	343.0	3.57	31.8	ng/g	373.70		91.8	75-125			
LCS Dup (F710215-BSD1) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	8.280	0.090	0.800	ng/g	8.0160		103	75-125	5.38	24	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.05
Project Manager: Denise King

Reported:
21-Oct-17 13:37

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710215 - EFGS-011 Nitric/Sulfuric Hg Digestion

Duplicate (F710215-DUP1)											
		Source: 1709619-06			Prepared: 04-Oct-17 Analyzed: 18-Oct-17						
Mercury	72.08	0.406	3.62	ng/g		76.54			6.00	24	
Matrix Spike (F710215-MS1)											
		Source: 1709619-06			Prepared: 04-Oct-17 Analyzed: 18-Oct-17						
Mercury	408.8	1.62	14.5	ng/g	362.32	76.54	91.7	71-125			
Matrix Spike (F710215-MS2)											
		Source: 1709619-07			Prepared: 04-Oct-17 Analyzed: 18-Oct-17						
Mercury	424.3	1.68	15.0	ng/g	374.53	71.45	94.2	71-125			
Matrix Spike Dup (F710215-MSD1)											
		Source: 1709619-06			Prepared: 04-Oct-17 Analyzed: 18-Oct-17						
Mercury	425.3	1.68	15.0	ng/g	375.94	76.54	92.8	71-125	1.15	24	
Matrix Spike Dup (F710215-MSD2)											
		Source: 1709619-07			Prepared: 04-Oct-17 Analyzed: 18-Oct-17						
Mercury	440.7	1.64	14.6	ng/g	364.96	71.45	101	71-125	7.13	24	

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Reported:
21-Oct-17 13:37

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- E-01 Sample was preceded by a sample exceeding the calibration curve and was reanalyzed for confirmation.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26003-171013-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 13, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7J16014, 7J16015

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	101.32 units	202.64	96.37 units	192.73	103.3 %Rec
SEQ-CAL2	1	1.00 ng/L	193.18 units	193.18	188.23 units	188.23	100.9 %Rec
SEQ-CAL3	1	5.00 ng/L	928.88 units	185.78	923.93 units	184.79	99.1 %Rec
SEQ-CAL4	1	20.00 ng/L	3675.90 units	183.80	3670.95 units	183.55	98.4 %Rec
SEQ-CAL5	1	40.00 ng/L	7344.76 units	183.62	7339.81 units	183.50	98.4 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 186.56 +/- 3.95 2.1% RSD 189.80

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	4.95 units	±0.84	0.03 ng/L	±0.00

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	2	1.493 ng/L	±1.064
BLK	2	2	0.532 ng/L	±0.108
BLK	3	3	1.667 ng/L	±0.321
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: AL 10/16/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	CAL	SEQ-IBL1	1	10/13/2017 8:27:52	77629-1.RAW	8:27:52 AM	4.99			0.0	0.000	0.000	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	10/13/2017 8:32:00	77630-1.RAW	8:32:00 AM	4.10			-0.9	-0.005	-0.005	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	10/13/2017 8:36:09	77631-1.RAW	8:36:09 AM	5.77			0.8	0.004	0.004	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	10/13/2017 8:40:17	77632-1.RAW	8:40:17 AM	101.32			96.4	0.517	0.517	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	10/13/2017 8:44:26	77633-1.RAW	8:44:26 AM	193.18			188.2	1.009	1.009	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	10/13/2017 8:48:34	77634-1.RAW	8:48:34 AM	928.88			923.9	4.953	4.953	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	10/13/2017 8:52:42	77635-1.RAW	8:52:42 AM	3675.90			3670.9	19.677	19.677	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	10/13/2017 8:56:51	77636-1.RAW	8:56:51 AM	7344.76			7339.8	39.343	39.343	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	10/13/2017 9:00:59	77637-1.RAW	9:00:59 AM	956.17			951.2	5.099	5.099	ng/L	
Hg2600-3	BC	BLK	F710305-BLK1	10	10/13/2017 9:08:01	77638-1.RAW	9:08:01 AM	46.84			41.9	0.225	2.245	ng/L	
Hg2600-3	BC	BLK	F710305-BLK2	10	10/13/2017 9:12:10	77639-1.RAW	9:12:10 AM	18.76			13.8	0.074	0.740	ng/L	
Hg2600-3	BC	SAM	F710305-BS1	10	10/13/2017 9:16:18	77640-1.RAW	9:16:18 AM	3847.26			3842.3	20.447	204.466	ng/L	
Hg2600-3	BC	SAM	F710305-BSD1	10	10/13/2017 9:20:27	77641-1.RAW	9:20:27 AM	3875.07			3870.1	20.596	205.956	ng/L	
Hg2600-3	BC	SAM	1709571-04	10	10/13/2017 9:24:35	77642-1.RAW	9:24:35 AM	785.61			780.7	4.035	40.353	ng/L	
Hg2600-3	BC	SAM	1709571-05	10	10/13/2017 9:28:43	77643-1.RAW	9:28:43 AM	393.22			388.3	1.932	19.320	ng/L	
Hg2600-3	BC	SAM	1709571-06	10	10/13/2017 9:32:52	77644-1.RAW	9:32:52 AM	364.53			359.6	1.778	17.782	ng/L	
Hg2600-3	BC	SAM	1709571-07	10	10/13/2017 9:37:00	77645-1.RAW	9:37:00 AM	251.83			246.9	1.174	11.741	ng/L	
Hg2600-3	BC	SAM	1709572-01	50	10/13/2017 9:41:09	77646-1.RAW	9:41:09 AM	104.72			99.8	0.505	25.246	ng/L	
Hg2600-3	BC	SAM	1709572-02	50	10/13/2017 9:45:17	77647-1.RAW	9:45:17 AM	99.06			94.1	0.475	23.729	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	10/13/2017 9:49:25	77648-1.RAW	9:49:25 AM	914.70			909.7	4.876	4.876	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	10/13/2017 9:53:34	77649-1.RAW	9:53:34 AM	20.42			15.5	0.083	0.083	ng/L	
Hg2600-3	BC	SAM	ws		10/13/2017 10:03:02	77650-1.RAW	10:03:02 AM	28.95		x	24.0	0.129	0.000	ng/L	
Hg2600-3	BC	SAM	1709572-03	10	10/13/2017 10:07:10	77651-1.RAW	10:07:10 AM	712.76			707.8	3.645	36.448	ng/L	
Hg2600-3	BC	SAM	1709572-04	10	10/13/2017 10:11:19	77652-1.RAW	10:11:19 AM	514.10			509.1	2.580	25.799	ng/L	
Hg2600-3	BC	SAM	1709572-05	10	10/13/2017 10:15:27	77653-1.RAW	10:15:27 AM	589.27			584.3	2.983	29.828	ng/L	
Hg2600-3	BC	SAM	1709572-06	10	10/13/2017 10:19:36	77654-1.RAW	10:19:36 AM	623.29			618.3	3.165	31.652	ng/L	
Hg2600-3	BC	SAM	1709572-07	10	10/13/2017 10:23:44	77655-1.RAW	10:23:44 AM	861.97			857.0	4.445	44.446	ng/L	
Hg2600-3	BC	SAM	1709572-08	10	10/13/2017 10:27:52	77656-1.RAW	10:27:52 AM	567.33			562.4	2.865	28.652	ng/L	
Hg2600-3	BC	SAM	1709572-09	10	10/13/2017 10:32:01	77657-1.RAW	10:32:01 AM	549.22			544.3	2.768	27.682	ng/L	
Hg2600-3	BC	SAM	1709572-10	10	10/13/2017 10:36:10	77658-1.RAW	10:36:10 AM	786.54			781.6	4.040	40.403	ng/L	
Hg2600-3	BC	SAM	1709572-11	10	10/13/2017 10:40:19	77659-1.RAW	10:40:19 AM	624.54			619.6	3.172	31.719	ng/L	
Hg2600-3	BC	SAM	1709572-12	10	10/13/2017 10:44:27	77660-1.RAW	10:44:27 AM	636.33			631.4	3.235	32.351	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	10/13/2017 10:48:36	77661-1.RAW	10:48:36 AM	916.68			911.7	4.887	4.887	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	10/13/2017 10:52:44	77662-1.RAW	10:52:44 AM	20.57			15.6	0.084	0.084	ng/L	
Hg2600-3	BC	SAM	1709572-13	10	10/13/2017 10:56:53	77663-1.RAW	10:56:53 AM	1010.99			1006.0	5.243	52.434	ng/L	
Hg2600-3	BC	SAM	1709572-14	10	10/13/2017 11:01:01	77664-1.RAW	11:01:01 AM	810.56			805.6	4.169	41.690	ng/L	
Hg2600-3	BC	SAM	1709572-15	10	10/13/2017 11:05:09	77665-1.RAW	11:05:09 AM	1087.22			1082.3	5.652	56.520	ng/L	
Hg2600-3	BC	SAM	1709574-01	100	10/13/2017 11:09:18	77666-1.RAW	11:09:18 AM	1077.09			1072.1	5.732	57.320	ng/L	
Hg2600-3	BC	SAM	1709572-01RE1	10	10/13/2017 11:13:26	77667-1.RAW	11:13:26 AM	482.10			477.1	2.408	24.084	ng/L	
Hg2600-3	BC	SAM	1709572-02RE1	10	10/13/2017 11:17:35	77668-1.RAW	11:17:35 AM	465.91			461.0	2.322	23.216	ng/L	
Hg2600-3	BC	SAM	F710305-MS1	400	10/13/2017 11:21:43	77669-1.RAW	11:21:43 AM	1186.37			1181.4	6.329	2531.595	ng/L	
Hg2600-3	BC	SAM	F710305-MSD1	400	10/13/2017 11:25:52	77670-1.RAW	11:25:52 AM	1260.17			1255.2	6.725	2689.830	ng/L	
Hg2600-3	BC	SAM	F710305-MS2	400	10/13/2017 11:30:00	77671-1.RAW	11:30:00 AM	1192.28			1187.3	6.361	2544.267	ng/L	
Hg2600-3	BC	SAM	F710305-MSD2	400	10/13/2017 11:34:09	77672-1.RAW	11:34:09 AM	1175.52			1170.6	6.271	2508.331	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	10/13/2017 11:38:17	77673-1.RAW	11:38:17 AM	933.30			928.3	4.976	4.976	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	10/13/2017 11:42:25	77674-1.RAW	11:42:25 AM	24.76			19.8	0.106	0.106	ng/L	
Hg2600-3	BC	BLK	F710306-BLK1	10	10/13/2017 11:46:34	77675-1.RAW	11:46:34 AM	16.30			11.3	0.061	0.608	ng/L	
Hg2600-3	BC	BLK	F710306-BLK2	10	10/13/2017 11:50:42	77676-1.RAW	11:50:42 AM	13.46			8.5	0.046	0.456	ng/L	
Hg2600-3	BC	SAM	F710306-BS1	10	10/13/2017 11:54:51	77677-1.RAW	11:54:51 AM	3846.10			3841.1	20.536	205.364	ng/L	
Hg2600-3	BC	SAM	F710306-BSD1	10	10/13/2017 11:58:59	77678-1.RAW	11:58:59 AM	3929.85			3924.9	20.985	209.853	ng/L	
Hg2600-3	BC	SAM	1709574-02	100	10/13/2017 12:03:08	77679-1.RAW	12:03:08 PM	1075.49			1070.5	5.733	57.305	ng/L	
Hg2600-3	BC	SAM	1709574-03	100	10/13/2017 12:07:16	77680-1.RAW	12:07:16 PM	957.74			952.8	5.102	510.188	ng/L	
Hg2600-3	BC	SAM	1709574-04	100	10/13/2017 12:11:25	77681-1.RAW	12:11:25 PM	938.39			933.4	4.998	499.816	ng/L	
Hg2600-3	BC	SAM	1709574-05	100	10/13/2017 12:15:33	77682-1.RAW	12:15:33 PM	611.93			607.0	3.248	324.824	ng/L	
Hg2600-3	BC	SAM	1709574-06	100	10/13/2017 12:19:41	77683-1.RAW	12:19:41 PM	472.30			467.3	2.500	249.979	ng/L	
Hg2600-3	BC	SAM	1709574-07	100	10/13/2017 12:23:50	77684-1.RAW	12:23:50 PM	301.42			296.5	1.584	158.382	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	10/13/2017 12:27:58	77685-1.RAW	12:27:58 PM	920.93			916.0	4.910	4.910	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	CAL	SEQ-CCB4	1	10/13/2017 12:32:07	77686-1.RAW	12:32:07 PM	15.85	1		10.9	0.058	0.058	ng/L	
Hg2600-3	BC	SAM	1709574-08	100	10/13/2017 12:36:15	77687-1.RAW	12:36:15 PM	216.29	2		211.3	1.128	112.750	ng/L	
Hg2600-3	BC	SAM	1709574-09	100	10/13/2017 12:40:24	77688-1.RAW	12:40:24 PM	188.45	2		183.5	0.978	97.827	ng/L	
Hg2600-3	BC	SAM	1709574-10	100	10/13/2017 12:44:32	77689-1.RAW	12:44:32 PM	113.33	2		108.4	0.576	57.561	ng/L	
Hg2600-3	BC	SAM	1709574-11	100	10/13/2017 12:48:41	77690-1.RAW	12:48:41 PM	127.35	2		122.4	0.651	65.076	ng/L	
Hg2600-3	BC	SAM	1709574-12	100	10/13/2017 12:52:49	77691-1.RAW	12:52:49 PM	81.92	2		77.0	0.407	40.724	ng/L	
Hg2600-3	BC	SAM	1709574-13	50	10/13/2017 12:56:57	77692-1.RAW	12:56:57 PM	124.71	2		119.8	0.631	31.564	ng/L	
Hg2600-3	BC	SAM	1709574-14	50	10/13/2017 13:01:06	77693-1.RAW	1:01:06 PM	123.65	2		118.7	0.626	31.280	ng/L	
Hg2600-3	BC	SAM	1709574-15	50	10/13/2017 13:05:14	77694-1.RAW	1:05:14 PM	76.86	2		71.9	0.375	18.740	ng/L	
Hg2600-3	BC	SAM	1709575-01	50	10/13/2017 13:09:23	77695-1.RAW	1:09:23 PM	3705.77	2		3700.8	19.827	991.338	ng/L	
Hg2600-3	BC	SAM	1709575-02	50	10/13/2017 13:13:31	77696-1.RAW	1:13:31 PM	1532.8	2		1527.8	8.179	408.952	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	10/13/2017 13:17:40	77697-1.RAW	1:17:40 PM	919.62			914.7	4.903	4.903	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	10/13/2017 13:21:48	77698-1.RAW	1:21:48 PM	24.11			19.2	0.103	0.103	ng/L	
Hg2600-3	BC	SAM	1709575-03	100	10/13/2017 13:25:56	77699-1.RAW	1:25:56 PM	312.45	2		307.5	1.643	164.295	ng/L	
Hg2600-3	BC	SAM	1709575-04	100	10/13/2017 13:30:05	77700-1.RAW	1:30:05 PM	142.99	2		138.0	0.735	73.459	ng/L	
Hg2600-3	BC	SAM	1709575-05	100	10/13/2017 13:34:13	77701-1.RAW	1:34:13 PM	136.04	2		131.1	0.697	69.734	ng/L	
Hg2600-3	BC	SAM	1709575-06	100	10/13/2017 13:38:22	77702-1.RAW	1:38:22 PM	87.73	2		82.8	0.438	43.838	ng/L	
Hg2600-3	BC	SAM	1709574-10RE1	10	10/13/2017 13:42:30	77703-1.RAW	1:42:30 PM	1067.00	2		1062.0	5.640	56.397	ng/L	
Hg2600-3	BC	SAM	1709574-11RE1	10	10/13/2017 13:46:39	77704-1.RAW	1:46:39 PM	1184.93	2		1180.0	6.272	62.718	ng/L	
Hg2600-3	BC	SAM	1709574-12RE1	10	10/13/2017 13:50:47	77705-1.RAW	1:50:47 PM	750.38	2		745.4	3.942	39.425	ng/L	
Hg2600-3	BC	SAM	1709574-13RE1	10	10/13/2017 13:54:56	77706-1.RAW	1:54:56 PM	598.94	2		594.0	3.131	31.307	ng/L	
Hg2600-3	BC	SAM	1709574-14RE1	10	10/13/2017 13:59:04	77707-1.RAW	1:59:04 PM	566.92	2		562.0	2.959	29.591	ng/L	
Hg2600-3	BC	SAM	1709574-15RE1	10	10/13/2017 14:03:12	77708-1.RAW	2:03:12 PM	358.42	2		353.5	1.841	18.415	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	10/13/2017 14:07:21	77709-1.RAW	2:07:21 PM	927.11			922.2	4.943	4.943	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	10/13/2017 14:11:29	77710-1.RAW	2:11:29 PM	26.19			21.2	0.114	0.114	ng/L	
Hg2600-3	BC	SAM	F710306-MS1	400	10/13/2017 14:15:38	77711-1.RAW	2:15:38 PM	1239.13	2		1234.2	6.614	2645.679	ng/L	
Hg2600-3	BC	SAM	F710306-MSD1	400	10/13/2017 14:19:46	77712-1.RAW	2:19:46 PM	1206.49	2		1201.5	6.439	2575.695	ng/L	
Hg2600-3	BC	SAM	F710306-MS2	400	10/13/2017 14:23:55	77713-1.RAW	2:23:55 PM	1567.58	2		1562.6	8.375	3349.912	ng/L	
Hg2600-3	BC	SAM	F710306-MSD2	400	10/13/2017 14:28:03	77714-1.RAW	2:28:03 PM	1632.71	2		1627.8	8.724	3489.558	ng/L	
Hg2600-3	BC	SAM	1709575-06RE1	10	10/13/2017 14:32:12	77715-1.RAW	2:32:12 PM	825.61	2		820.7	4.346	43.457	ng/L	
Hg2600-3	BC	BLK	F710214-BLK6	20	10/13/2017 14:36:20	77716-1.RAW	2:36:20 PM	23.95	3		19.0	0.102	2.037	ng/L	
Hg2600-3	BC	BLK	F710214-BLK7	20	10/13/2017 14:40:29	77717-1.RAW	2:40:29 PM	19.09	3		14.1	0.076	1.516	ng/L	
Hg2600-3	BC	BLK	F710214-BLK8	20	10/13/2017 14:44:37	77718-1.RAW	2:44:37 PM	18.48	3		13.5	0.073	1.450	ng/L	
Hg2600-3	BC	SAM	1709618-07	20	10/13/2017 14:48:46	77719-1.RAW	2:48:46 PM	4507.01	3		4502.1	24.049	480.978	ng/L	
Hg2600-3	BC	SAM	1709618-08	20	10/13/2017 14:52:54	77720-1.RAW	2:52:54 PM	9501.79	3		9496.8	50.822	1016.446	ng/L	
Hg2600-3	BC	SAM	ws		10/13/2017 15:00:04	77722-1.RAW	3:00:04 PM	89.16		x	84.2	0.451	0.000	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	10/13/2017 15:04:12	77721-2.RAW	3:04:12 PM	923.68			918.7	4.925	4.925	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	10/13/2017 15:08:21	77723-1.RAW	3:08:21 PM	26.91			22.0	0.118	0.118	ng/L	
Hg2600-3	BC	SAM	1709618-08RE1	50	10/13/2017 15:12:29	77724-1.RAW	3:12:29 PM	4144.32	3		4139.4	22.155	1107.740	ng/L	
Hg2600-3	BC	SAM	1709618-09	50	10/13/2017 15:16:38	77725-1.RAW	3:16:38 PM	4151.86	3		4146.9	22.195	1109.761	ng/L	
Hg2600-3	BC	SAM	1709618-10	50	10/13/2017 15:20:46	77726-1.RAW	3:20:46 PM	11079.80	3		11074.8	59.331	2966.544	ng/L	
Hg2600-3	BC	SAM	1709618-11	50	10/13/2017 15:24:55	77727-1.RAW	3:24:55 PM	3845.29	3		3840.3	20.552	1027.596	ng/L	
Hg2600-3	BC	SAM	1709618-12	50	10/13/2017 15:29:03	77728-1.RAW	3:29:03 PM	6668.06	3		6663.1	35.683	1784.137	ng/L	
Hg2600-3	BC	SAM	1709618-13	50	10/13/2017 15:33:12	77729-1.RAW	3:33:12 PM	6043.11	3		6038.2	32.333	1616.642	ng/L	
Hg2600-3	BC	SAM	1709618-14	50	10/13/2017 15:37:20	77730-1.RAW	3:37:20 PM	10341.49	3		10336.5	55.373	2768.667	ng/L	
Hg2600-3	BC	SAM	1709618-15	50	10/13/2017 15:41:28	77731-1.RAW	3:41:28 PM	5442.92	3		5438.0	29.116	1455.783	ng/L	
Hg2600-3	BC	SAM	1709619-01	50	10/13/2017 15:45:37	77732-1.RAW	3:45:37 PM	7584.76	3		7579.8	40.597	2029.825	ng/L	
Hg2600-3	BC	SAM	1709619-02	50	10/13/2017 15:50:12	77733-2.RAW	3:50:12 PM	5430.89	3		5425.9	29.051	1452.558	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	10/13/2017 15:54:21	77734-1.RAW	3:54:21 PM	956.44			951.5	5.100	5.100	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8	1	10/13/2017 15:58:29	77735-1.RAW	3:58:29 PM	48.90			43.9	0.236	0.236	ng/L	
Hg2600-3	BC	SAM	1709618-10RE1	400	10/13/2017 16:02:38	77736-1.RAW	4:02:38 PM	1464.49	3		1459.5	7.819	3127.740	ng/L	
Hg2600-3	BC	SAM	1709618-11RE1	100	10/13/2017 16:06:46	77737-1.RAW	4:06:46 PM	1960.23	3		1955.3	10.464	1046.415	ng/L	
Hg2600-3	BC	SAM	1709618-14RE1	400	10/13/2017 16:10:55	77738-1.RAW	4:10:55 PM	1507.42	3		1502.5	8.049	3219.787	ng/L	
Hg2600-3	BC	SAM	1709618-15RE1	100	10/13/2017 16:15:03	77739-1.RAW	4:15:03 PM	2861.62	3		2856.7	15.296	1529.585	ng/L	
Hg2600-3	BC	SAM	1709619-01RE1	100	10/13/2017 16:19:12	77740-1.RAW	4:19:12 PM	3907.35	3		3902.4	20.901	2090.125	ng/L	
Hg2600-3	BC	SAM	1709619-02RE1	100	10/13/2017 16:23:20	77741-1.RAW	4:23:20 PM	2717.75	3		2712.8	14.525	1452.466	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV9	1	10/13/2017 16:27:28	77742-1.RAW	4:27:28 PM	929.93			925.0	4.958	4.958	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB9	1	10/13/2017 16:31:37	77743-1.RAW	4:31:37 PM	39.07			34.1	0.183	0.183	ng/L	

TotalMercury EPA1631
 Operatr BC
 BlankSi 4.9521
 Calib Eqn: Conc = (Area-4.952
 Run Date: #####
 Blank SD: 0.839730403
 Worksh THg260(CalibFa 186.56
 Status: QC Warnings:3/QC E
 Run Time: 15:46:03
 Blank RSD%: 16.95706196
 Method #### R: 1 R²: 1
 CF SD: 3.957906196
 CF RSD%: 2.121519254
 Descrip THg26003-171013-1

Sample/ID	Location Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean			0.00	3.66					77624-1.RAW	8:08:27	683.29	Clean	OK	1
clean									77625-1.RAW	8:11:18	0.00	Clean	NP	1
ws			4.95	0.00					77626-1.RAW	8:15:27	4.57	Sample	OK	1
ws			4.95	0.00					77627-1.RAW	8:19:35	3.65	Sample	OK	1
ws			4.95	0.00					77628-1.RAW	8:23:43	4.52	Sample	OK	1
SEQ-IBL1	A1	1	0.00	0.03					77629-1.RAW	8:27:52	4.99	Sample	OK	1
SEQ-IBL2	A2	1	0.00	0.02					77630-1.RAW	8:32:00	4.10	Sample	OK	1
SEQ-IBL3	A3	1	0.00	0.03					77631-1.RAW	8:36:09	5.77	Sample	OK	1
SEQ-CAL1	A4	1	4.95	0.52			103.32		77632-1.RAW	8:40:17	101.32	Sample	OK	1
SEQ-CAL2	A5	1	4.95	1.01			100.89		77633-1.RAW	8:44:26	193.18	Sample	OK	1
SEQ-CAL3	A6	1	4.95	4.95			99.05		77634-1.RAW	8:48:34	928.88	Sample	OK	1
SEQ-CAL4	A7	1	4.95	19.68			98.39		77635-1.RAW	8:52:42	3675.90	Sample	OK	1
SEQ-CAL5	A8	1	4.95	39.34			98.36		77636-1.RAW	8:56:51	7344.76	Sample	FB	1
SEQ-ICV1	A9	1	4.95	5.10			101.97		77637-1.RAW	9:00:59	956.17	Sample	OK	1
F710305-BLK1	A10	10	4.95	2.25					77638-1.RAW	9:08:01	46.84	Sample	OK	1
F710305-BLK2	A11	10	4.95	0.74					77639-1.RAW	9:12:10	18.76	Sample	OK	1
F710305-BS1	A12	10	4.95	205.96					77640-1.RAW	9:16:18	3847.26	Sample	FB	1
F710305-BSD1	B1	10	4.95	207.45					77641-1.RAW	9:20:27	3875.07	Sample	OK	1
1709571-04	B2	10	4.95	41.85					77642-1.RAW	9:24:35	785.61	Sample	OK	1
1709571-05	B3	10	4.95	20.81					77643-1.RAW	9:28:43	393.22	Sample	OK	1
1709571-06	B4	10	4.95	19.27					77644-1.RAW	9:32:52	364.53	Sample	OK	1
1709571-07	B5	10	4.95	13.23					77645-1.RAW	9:37:00	251.83	Sample	OK	1
1709572-01	B6	50	4.95	26.74					77646-1.RAW	9:41:09	104.72	Sample	OK	1
1709572-02	B7	50	4.95	25.22					77647-1.RAW	9:45:17	99.06	Sample	OK	1
SEQ-CCV1	B8	1	4.95	4.88			97.53		77648-1.RAW	9:49:25	914.70	Sample	OK	1
SEQ-CCB1	B9	1	4.95	0.08			0.00		77649-1.RAW	9:53:34	20.42	Sample	OK	1
ws			4.95	0.13					77650-1.RAW	10:03:02	28.95	Sample	OK	1
1709572-03	B10	10	4.95	37.94					77651-1.RAW	10:07:10	712.76	Sample	OK	1
1709572-04	B11	10	4.95	27.29					77652-1.RAW	10:11:19	514.10	Sample	OK	1
1709572-05	B12	10	4.95	31.32					77653-1.RAW	10:15:27	589.27	Sample	OK	1
1709572-06	C1	10	4.95	33.14					77654-1.RAW	10:19:36	623.29	Sample	OK	1
1709572-07	C2	10	4.95	45.94					77655-1.RAW	10:23:44	861.97	Sample	OK	1
1709572-08	C3	10	4.95	30.14					77656-1.RAW	10:27:52	567.33	Sample	OK	1
1709572-09	C4	10	4.95	29.17					77657-1.RAW	10:32:01	549.22	Sample	OK	1
1709572-10	C5	10	4.95	41.89					77658-1.RAW	10:36:10	786.54	Sample	OK	1
1709572-11	C6	10	4.95	33.21					77659-1.RAW	10:40:19	624.54	Sample	OK	1
1709572-12	C7	10	4.95	33.84					77660-1.RAW	10:44:27	636.33	Sample	OK	1
SEQ-CCV2	C8	1	4.95	4.89			97.74		77661-1.RAW	10:48:36	916.68	Sample	OK	1
SEQ-CCB2	C9	1	4.95	0.08			0.00		77662-1.RAW	10:52:44	20.57	Sample	OK	1
1709572-13	C10	10	4.95	53.93					77663-1.RAW	10:56:53	1010.99	Sample	OK	1
1709572-14	C11	10	4.95	43.18					77664-1.RAW	11:01:01	810.56	Sample	OK	1
1709572-15	C12	10	4.95	58.01					77665-1.RAW	11:05:09	1087.22	Sample	OK	1

1709574-01	D1	100	4.95	574.69		77666-1.RAW	11:09:18	1077.09	Sample	OK	1
1709572-01RE1	D2	10	4.95	25.58		77667-1.RAW	11:13:26	482.10	Sample	OK	1
1709572-02RE1	D3	10	4.95	24.71		77668-1.RAW	11:17:35	465.91	Sample	OK	1
F710305-MS1	D4	400	4.95	2533.05	9853.14	77669-1.RAW	11:21:43	1186.37	Sample	OK	1
F710305-MSD1	D5	400	4.95	2691.28		77670-1.RAW	11:25:52	1260.17	Sample	OK	1
F710305-MS2	D6	400	4.95	2545.74	94.52	77671-1.RAW	11:30:00	1192.28	Sample	OK	1
F710305-MSD2	D7	400	4.95	2509.80		77672-1.RAW	11:34:09	1175.52	Sample	OK	1
SEQ-CCV3	D8	1	4.95	4.98	99.52	77673-1.RAW	11:38:17	933.30	Sample	OK	1
SEQ-CCB3	D9	1	4.95	0.11	0.00	77674-1.RAW	11:42:25	24.76	Sample	OK	1
F710306-BLK1	D10	10	4.95	0.61		77675-1.RAW	11:46:34	16.30	Sample	OK	1
F710306-BLK2	D11	10	4.95	0.46		77676-1.RAW	11:50:42	13.46	Sample	OK	1
F710306-BS1	D12	10	4.95	205.89		77677-1.RAW	11:54:51	3846.10	Sample	OK	1
F710306-BSD1	A1	10	4.95	210.38		77678-1.RAW	11:58:59	3929.85	Sample	OK	1
1709574-02	A2	100	4.95	573.83		77679-1.RAW	12:03:08	1075.49	Sample	OK	1
1709574-03	A3	100	4.95	510.71		77680-1.RAW	12:07:16	957.74	Sample	OK	1
1709574-04	A4	100	4.95	500.34		77681-1.RAW	12:11:25	938.39	Sample	OK	1
1709574-05	A5	100	4.95	325.35		77682-1.RAW	12:15:33	611.93	Sample	OK	1
1709574-06	A6	100	4.95	250.51		77683-1.RAW	12:19:41	472.30	Sample	OK	1
1709574-07	A7	100	4.95	158.91		77684-1.RAW	12:23:50	301.42	Sample	OK	1
SEQ-CCV4	A8	1	4.95	4.91	98.20	77685-1.RAW	12:27:58	920.93	Sample	OK	1
SEQ-CCB4	A9	1	4.95	0.06	0.00	77686-1.RAW	12:32:07	15.85	Sample	OK	1
1709574-08	A10	100	4.95	113.28		77687-1.RAW	12:36:15	216.29	Sample	OK	1
1709574-09	A11	100	4.95	98.36		77688-1.RAW	12:40:24	188.45	Sample	OK	1
1709574-10	A12	100	4.95	58.09		77689-1.RAW	12:44:32	113.33	Sample	OK	1
1709574-11	B1	100	4.95	65.61		77690-1.RAW	12:48:41	127.35	Sample	OK	1
1709574-12	B2	100	4.95	41.25		77691-1.RAW	12:52:49	81.92	Sample	OK	1
1709574-13	B3	50	4.95	32.10		77692-1.RAW	12:56:57	124.71	Sample	OK	1
1709574-14	B4	50	4.95	31.81		77693-1.RAW	13:01:06	123.65	Sample	OK	1
1709574-15	B5	50	4.95	19.27		77694-1.RAW	13:05:14	76.86	Sample	OK	1
1709575-01	B6	50	4.95	991.86		77695-1.RAW	13:09:23	3705.77	Sample	FB	1
1709575-02	B7	50	4.95	409.48		77696-1.RAW	13:13:31	1532.80	Sample	OK	1
SEQ-CCV5	B8	1	4.95	4.90	98.06	77697-1.RAW	13:17:40	919.62	Sample	OK	1
SEQ-CCB5	B9	1	4.95	0.10	0.00	77698-1.RAW	13:21:48	24.11	Sample	OK	1
1709575-03	B10	100	4.95	164.82		77699-1.RAW	13:25:56	312.45	Sample	OK	1
1709575-04	B11	100	4.95	73.99		77700-1.RAW	13:30:05	142.99	Sample	OK	1
1709575-05	B12	100	4.95	70.27		77701-1.RAW	13:34:13	136.04	Sample	OK	1
1709575-06	C1	100	4.95	44.37		77702-1.RAW	13:38:22	87.73	Sample	OK	1
1709574-10RE1	C2	10	4.95	56.93		77703-1.RAW	13:42:30	1067.00	Sample	OK	1
1709574-11RE1	C3	10	4.95	63.25		77704-1.RAW	13:46:39	1184.93	Sample	OK	1
1709574-12RE1	C4	10	4.95	39.96		77705-1.RAW	13:50:47	750.38	Sample	OK	1
1709574-13RE1	C5	10	4.95	31.84		77706-1.RAW	13:54:56	598.94	Sample	OK	1
1709574-14RE1	C6	10	4.95	30.12		77707-1.RAW	13:59:04	566.92	Sample	OK	1
1709574-15RE1	C7	10	4.95	18.95		77708-1.RAW	14:03:12	358.42	Sample	OK	1
SEQ-CCV6	C8	1	4.95	4.94	98.86	77709-1.RAW	14:07:21	927.11	Sample	OK	1
SEQ-CCB6	C9	1	4.95	0.11	0.00	77710-1.RAW	14:11:29	26.19	Sample	OK	1
F710306-MS1	C10	400	4.95	2646.19	237578.98	77711-1.RAW	14:15:38	1239.13	Sample	OK	1
F710306-MSD1	C11	400	4.95	2576.21		77712-1.RAW	14:19:46	1206.49	Sample	OK	1
F710306-MS2	C12	400	4.95	3350.40	129.95	77713-1.RAW	14:23:55	1567.58	Sample	OK	1

F710306-MSD2	D1	400	4.95	3490.05		77714-1.RAW	14:28:03	1632.71	Sample	OK	1
1709575-06RE1	D2	10	4.95	43.99		77715-1.RAW	14:32:12	825.61	Sample	OK	1
F710214-BLK6	D3	20	4.95	2.04		77716-1.RAW	14:36:20	23.95	Sample	OK	1
F710214-BLK7	D4	20	4.95	1.52		77717-1.RAW	14:40:29	19.09	Sample	OK	1
F710214-BLK8	D5	20	4.95	1.45		77718-1.RAW	14:44:37	18.48	Sample	OK	1
1709618-07	D6	20	4.95	482.64		77719-1.RAW	14:48:46	4507.01	Sample	FB	1
1709618-08	D7	20	4.95	1018.10		77720-1.RAW	14:52:54	9501.79	Sample	FB	1
ws			4.95	0.45		77722-1.RAW	15:00:04	89.16	Sample	OK	1
SEQ-CCV7	D8	1	4.95	4.92	98.49	77721-2.RAW	15:04:12	923.68	Sample	OK	1
SEQ-CCB7	D9	1	4.95	0.12	0.00	77723-1.RAW	15:08:21	26.91	Sample	OK	1
1709618-08RE1	D10	50	4.95	1109.39		77724-1.RAW	15:12:29	4144.32	Sample	FB	1
1709618-09	D11	50	4.95	1111.41		77725-1.RAW	15:16:38	4151.86	Sample	FB	1
1709618-10	D12	50	4.95	2968.17		77726-1.RAW	15:20:46	11079.80	Sample	FB	1
1709618-11	A1	50	4.95	1029.25		77727-1.RAW	15:24:55	3845.29	Sample	FB	1
1709618-12	A2	50	4.95	1785.78		77728-1.RAW	15:29:03	6668.06	Sample	FB	1
1709618-13	A3	50	4.95	1618.29		77729-1.RAW	15:33:12	6043.11	Sample	FB	1
1709618-14	A4	50	4.95	2770.30		77730-1.RAW	15:37:20	10341.49	Sample	FB	1
1709618-15	A5	50	4.95	1457.43		77731-1.RAW	15:41:28	5442.92	Sample	FB	1
1709619-01	A6	50	4.95	2031.47		77732-1.RAW	15:45:37	7584.76	Sample	FB	1
1709619-02	A7	50	4.95	1454.21		77733-2.RAW	15:50:12	5430.89	Sample	FB	1
SEQ-CCV8	A8	1	4.95	5.10	102.00	77734-1.RAW	15:54:21	956.44	Sample	OK	1
SEQ-CCB8	A9	1	4.95	0.24	0.00	77735-1.RAW	15:58:29	48.90	Sample	OK	1
1709618-10RE1	A10	400	4.95	3129.38		77736-1.RAW	16:02:38	1464.49	Sample	FB	1
1709618-11RE1	A11	100	4.95	1048.07		77737-1.RAW	16:06:46	1960.23	Sample	OK	1
1709618-14RE1	A12	400	4.95	3221.41		77738-1.RAW	16:10:55	1507.42	Sample	OK	1
1709618-15RE1	B1	100	4.95	1531.23		77739-1.RAW	16:15:03	2861.62	Sample	OK	1
1709619-01RE1	B2	100	4.95	2091.77		77740-1.RAW	16:19:12	3907.35	Sample	FB	1
1709619-02RE1	B3	100	4.95	1454.11		77741-1.RAW	16:23:20	2717.75	Sample	OK	1
SEQ-CCV9	B4	1	4.95	4.96	99.16	77742-1.RAW	16:27:28	929.93	Sample	OK	1
SEQ-CCB9	B5	1	4.95	0.18	0.00	77743-1.RAW	16:31:37	39.07	Sample	OK	1

ANALYSIS SEQUENCE **QUALITY ASSURANCE**

7J16015

PEER-REVIEWED

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *R* 10/16/17 Analyzed: 10/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J16015-IBL1 ✓	QC	1			
7J16015-IBL2 ✓	QC	2			
7J16015-IBL3 ✓	QC	3			
7J16015-CAL1 ✓	QC	4	1704505	✓	
7J16015-CAL2 ✓	QC	5	1704506	✓	
7J16015-CAL3 ✓	QC	6	1704507	✓	
7J16015-CAL4 ✓	QC	7	1704508	✓	
7J16015-CAL5 ✓	QC	8	1704509	✓	
7J16015-ICV1 ✓	QC	9	1705628		
7J16015-CCV1 ✓	QC	10	1705628		
7J16015-CCB1 ✓	QC	11			
7J16015-CCV2 ✓	QC	12	1705628	✓	
7J16015-CCB2 ✓	QC	13			
7J16015-CCV3 ✓	QC	14	1705628	✓	
7J16015-CCB3 ✓	QC	15			
7J16015-CCV4 ✓	QC	16	1705628	✓	
7J16015-CCB4 ✓	QC	17			
7J16015-CCV5 ✓	QC	18	1705628	✓	
7J16015-CCB5 ✓	QC	19			
7J16015-CCV6 ✓	QC	20	1705628	✓	
7J16015-CCB6 ✓	QC	21			
F710214-BLK6 ✓	QC	22		1001152	<i>R</i> 10/16/17
F710214-BLK7 ✓	QC	23			
F710214-BLK8 ✓	QC	24			
1709618-07 ✓	Hg-CVAFS-T-7030	25			
1709618-08 ✓	Hg-CVAFS-T-7030	26			
7J16015-CCV7 ✓	QC	27	1705628	✓	
7J16015-CCB7 ✓	QC	28			
1709618-08RE1 ✓	Hg-CVAFS-T-7030	29			Added 10/16/2017 by BC
1709618-09 ✓	Hg-CVAFS-T-7030	30			
1709618-10 ✓	Hg-CVAFS-T-7030	31			
1709618-11 ✓	Hg-CVAFS-T-7030	32			
1709618-12 ✓	Hg-CVAFS-T-7030	33			
1709618-13 ✓	Hg-CVAFS-T-7030	34			
1709618-14 ✓	Hg-CVAFS-T-7030	35			

ANALYSIS SEQUENCE

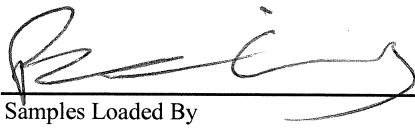
7J16015

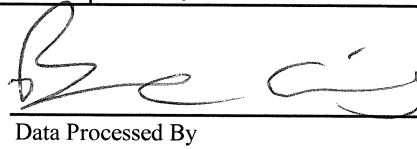
Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709618-15 ✓	Hg-CVAFS-T-7030	36			
1709619-01 ✓	Hg-CVAFS-T-7030	37			
1709619-02 ✓	Hg-CVAFS-T-7030	38			
7J16015-CCV8 ✓	QC	39	1705628	✓	
7J16015-CCB8 ✓	QC	40			
1709618-10RE1 ✓	Hg-CVAFS-T-7030	41			Added 10/16/2017 by BC
1709618-11RE1 ✓	Hg-CVAFS-T-7030	42			Added 10/16/2017 by BC
1709618-14RE1 ✓	Hg-CVAFS-T-7030	43			Added 10/16/2017 by BC
1709618-15RE1 ✓	Hg-CVAFS-T-7030	44			Added 10/16/2017 by BC
1709619-01RE1 ✓	Hg-CVAFS-T-7030	45			Added 10/16/2017 by BC
1709619-02RE1 ✓	Hg-CVAFS-T-7030	46			Added 10/16/2017 by BC
7J16015-CCV9 ✓	QC	47	1705628	✓	
7J16015-CCB9 ✓	QC	48			

 10/16/17
 Samples Loaded By _____ Date

 10/16/17
 Data Processed By _____ Date

1022
 10/13/17

PREPARATION BENCH SHEET

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710214-BLK1	Blank	0.25	20					
F710214-BLK2	Blank	0.25	20					
F710214-BLK3	Blank	0.25	20					
F710214-BLK4	Blank	0.276	20					Pre-homogenization Blanks for 1709617-1709618
F710214-BLK5	Blank	0.263	20					Pre-homogenization Blanks for 1709617-1709618
F710214-BLK6	Blank	0.5	40					
F710214-BLK7	Blank	0.5	40					
F710214-BLK8	Blank	0.5	40					
F710214-BS1	LCS	0.25	20	1704421	20			
F710214-BS2	DORM4	0.1268	20	1705412	126.8			
F710214-BSD1	LCS Dup	0.25	20	1704421	20			
F710214-DUP1	Duplicate [1709618-01]	0.253	20					
F710214-MS1	Matrix Spike [1709618-01]	0.263	20	1705554	100			
F710214-MS2	Matrix Spike [1709618-02]	0.262	20	1705554	100			
F710214-MSD1	Matrix Spike Dup [1709618-01]	0.26	20	1705554	100			
F710214-MSD2	Matrix Spike Dup [1709618-02]	0.279	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709618-01	OB-01_17MT001_091817_MUM_01_WB	0.275	20	QC	-	-	MS/MSD	
1709618-02	OB-01_17MT002_091817_MUM_02_WB	0.276	20	-	-	-		
1709618-03	OB-01_17MT002_091817_MUM_03_WB	0.254	20	-	-	-		
1709618-04	OB-01_17MT002_091817_MUM_04_WB	0.269	20	-	-	-		
1709618-05	OB-01_17MT002_091817_MUM_05_WB	0.257	20	-	-	-		
1709618-06	OB-01_17MT002_091817_MUM_06_WB	0.281	20	-	-	-		
1709618-07	OB-01_17MT002_091817_MUM_07_WB	0.257	20	-	-	-		
1709618-08	OB-01_17MT002_091817_MUM_08_WB	0.254	20	-	-	-		
1709618-08RE1	OB-01_17MT002_091817_MUM_08_WB	0.254	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-09	OB-01_17MT001_091917_MUM_09_WB	0.279	20	-	-	-		
1709618-10	OB-01_17MT001_091917_MUM_10_WB	0.258	20	-	-	-		
1709618-10RE1	OB-01_17MT001_091917_MUM_10_WB	0.258	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-11	OB-01_17MT001_091917_MUM_11_WB	0.251	20	-	-	-		
1709618-11RE1	OB-01_17MT001_091917_MUM_11_WB	0.251	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-12	OB-01_17MT001_091917_MUM_12_WB	0.274	20	-	-	-		
1709618-13	OB-01_17MT001_091917_MUM_13_WB	0.255	20	-	-	-		
1709618-14	OB-01_17MT002_091917_MUM_14_WB	0.272	20	-	-	-		
1709618-14RE1	OB-01_17MT002_091917_MUM_14_WB	0.272	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-15	OB-01_17MT002_091917_MUM_15_WB	0.259	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709618-15RE1	OB-01_17MT002_091917_MUM_15_WB	0.259	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709619-01	OB-05_17SN001_091517_MUM_01_WB	0.278	20	-	-	-		
1709619-01RE1	OB-05_17SN001_091517_MUM_01_WB	0.278	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709619-02	OB-05_17SN001_091517_MUM_02_WB	0.255	20	-	-	-		
1709619-02RE1	OB-05_17SN001_091517_MUM_02_WB	0.255	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709619-03	OB-05_17SN001_091517_MUM_03_WB	0.282	20	-	-	-		
1709619-04	OB-05_17SN001_091517_MUM_04_WB	0.265	20	-	-	-		
1709619-05	OB-05_17SN001_091517_MUM_05_WB	0.275	20	-	-	-		

2600-3
BC 10/13/17

PREPARATION BENCH SHEET

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710214-BLK1	Blank	0.25	20					
F710214-BLK2	Blank	0.25	20					
F710214-BLK3	Blank	0.25	20					
F710214-BLK4	Blank	0.276	20					Pre-homogenization Blanks for 1709617-1709618
F710214-BLK5	Blank	0.263	20					Pre-homogenization Blanks for 1709617-1709618
F710214-BLK6	Blank <i>R 10/16/17</i>	<i>0.25</i>	<i>40</i>					<i>20X</i>
F710214-BLK7	Blank	<i>0.5</i>	<i>40</i>					<i>20X</i>
F710214-BLK8	Blank	<i>0.5</i>	<i>40</i>					<i>20X</i>
F710214-BS1	LCS	0.25	20	1704421	20			
F710214-BS2	DORM4	0.1268	20	1705412	126.8			
F710214-BSD1	LCS Dup	0.25	20	1704421	20			
F710214-DUP1	Duplicate [1709618-01]	0.253	20					
F710214-MS1	Matrix Spike [1709618-01]	0.263	20	1705554	100			
F710214-MS2	Matrix Spike [1709618-02]	0.262	20	1705554	100			
F710214-MSD1	Matrix Spike Dup [1709618-01]	0.26	20	1705554	100			
F710214-MSD2	Matrix Spike Dup [1709618-02]	0.279	20	1705554	100			

Standard ID(s): Description: Expiration:
 1704421 THg 100ng/mL Primary Spiking Standard 21-Oct-17 00:00
 1705412 DORM-4 06-Jan-20 00:00
 1705554 THg 1,000ng/mL Secondary Spiking Standard / 18-Mar-18 00:00

Reagent ID(s): Description: Expiration:
 1702551 Boiling Chips for AFS prep 31-Dec-17 00:00
 1705859 70/30 Digestion Acid 28-Mar-18 00:00
 1705915 5% BrCl 14-Mar-18 00:00

*20X = 2.5mL
 50X = 1mL
 400X = 0.25mL
 100X = 500µL*

*1705610
 1705611
 1705961
 1703192*

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2000-3
8010/13/17

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709618-01	OB-0i_17MT001_091817_MUM_01_WB	0.275	20	QC	-	-	MS/MSD 20X	
1709618-02	OB-01_17MT002_091817_MUM_02_WB	0.276	20	-	-	-		
1709618-03	OB-01_17MT002_091817_MUM_03_WB	0.254	20	-	-	-		
1709618-04	OB-01_17MT002_091817_MUM_04_WB	0.269	20	-	-	-		
1709618-05	OB-01_17MT002_091817_MUM_05_WB	0.257	20	-	-	-		
1709618-06	OB-01_17MT002_091817_MUM_06_WB	0.281	20	-	-	-		
1709618-07	OB-01_17MT002_091817_MUM_07_WB	0.257	20	-	-	-	20X	
1709618-08	OB-01_17MT002_091817_MUM_08_WB	0.254	20	-	-	-	20X → 50X	
1709618-09	OB-01_17MT001_091917_MUM_09_WB	0.279	20	-	-	-	50X	
1709618-10	OB-01_17MT001_091917_MUM_10_WB	0.258	20	-	-	-	50X → 400X	
1709618-11	OB-01_17MT001_091917_MUM_11_WB	0.251	20	-	-	-	50X → 100X 50X	
1709618-12	OB-01_17MT001_091917_MUM_12_WB	0.274	20	-	-	-	50X	
1709618-13	OB-01_17MT001_091917_MUM_13_WB	0.255	20	-	-	-	50X	
1709618-14	OB-01_17MT002_091917_MUM_14_WB	0.272	20	-	-	-	50X → 400X	
1709618-15	OB-01_17MT002_091917_MUM_15_WB	0.259	20	-	-	-	50X → 100X 50X	
1709619-01	OB-05_17SN001_091517_MUM_01_WB	0.278	20	-	-	-	50X → 100X	
1709619-02	OB-05_17SN001_091517_MUM_02_WB	0.255	20	-	-	-	50X → 100X 50X	
1709619-03	OB-05_17SN001_091517_MUM_03_WB	0.282	20	-	-	-		
1709619-04	OB-05_17SN001_091517_MUM_04_WB	0.265	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-3

BC/10/13/17

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709619-05	OB-05_17SN001_091517_MUM_05_WB	0.275	20	-	-	-		
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Failing Data Report - 7J16015

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1709618-08	Hg-CVAFS-T-7030	80.0	0.787				ng/g						FAIL-OVER	PASS	F
1709618-10	Hg-CVAFS-T-7030	230	1.94				ng/g						FAIL-OVER	PASS	E
1709618-14	Hg-CVAFS-T-7030	204	1.84				ng/g						FAIL-OVER	PASS	F
1709619-01	Hg-CVAFS-T-7030	146	1.80				ng/g						FAIL-OVER	PASS	F



 Analyst Reviewed By _____ Date 10/16/17



 Peer Reviewed By _____ Date 10/16/17

7J16014

PEER-REVIEWED

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: R 10/16/17 Analyzed: 10/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J16014-IBL1 ✓	QC	1			
7J16014-IBL2 ✓	QC	2			
7J16014-IBL3 ✓	QC	3			
7J16014-CAL1 ✓	QC	4	1704505 ✓		
7J16014-CAL2 ✓	QC	5	1704506 ✓		
7J16014-CAL3 ✓	QC	6	1704507 ✓		
7J16014-CAL4 ✓	QC	7	1704508 ✓		
7J16014-CAL5 ✓	QC	8	1704509 ✓		
7J16014-ICV1 ✓	QC	9	1705628 ✓		
F710305-BLK1 ✓	QC	10			
F710305-BLK2 ✓	QC	11			
F710305-BS1 ✓	QC	12			
F710305-BSD1 ✓	QC	13			
1709571-04 ✓	Hg-CVAFS-S-7474	14			
1709571-05 ✓	Hg-CVAFS-S-7474	15			
1709571-06 ✓	Hg-CVAFS-S-7474	16			
1709571-07 ✓	Hg-CVAFS-S-7474	17			
1709572-01 ✓	Hg-CVAFS-S-7474	18			
1709572-02 ✓	Hg-CVAFS-S-7474	19			
7J16014-CCV1 ✓	QC	20	1705628 ✓		
7J16014-CCB1 ✓	QC	21			
1709572-03 ✓	Hg-CVAFS-S-7474	22			
1709572-04 ✓	Hg-CVAFS-S-7474	23			
1709572-05 ✓	Hg-CVAFS-S-7474	24			
1709572-06 ✓	Hg-CVAFS-S-7474	25			
1709572-07 ✓	Hg-CVAFS-S-7474	26			
1709572-08 ✓	Hg-CVAFS-S-7474	27			
1709572-09 ✓	Hg-CVAFS-S-7474	28			
1709572-10 ✓	Hg-CVAFS-S-7474	29			
1709572-11 ✓	Hg-CVAFS-S-7474	30			
1709572-12 ✓	Hg-CVAFS-S-7474	31			
7J16014-CCV2 ✓	QC	32	1705628 ✓		
7J16014-CCB2 ✓	QC	33			
1709572-13 ✓	Hg-CVAFS-S-7474	34			
1709572-14 ✓	Hg-CVAFS-S-7474	35			

ANALYSIS SEQUENCE

7J16014

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709572-15 ✓	Hg-CVAFS-S-7474	36			
1709574-01 ✓	Hg-CVAFS-S-7474	37			
1709572-01RE1 ✓	Hg-CVAFS-S-7474	38			Sample is mostly rock. BEF 10/11/17
1709572-02RE1 ✓	Hg-CVAFS-S-7474	39			Sample is mostly rock. BEF 10/11/17
F710305-MS1 ✓	QC	40			
F710305-MSD1 ✓	QC	41			
F710305-MS2 ✓	QC	42			
F710305-MSD2 ✓	QC	43			
7J16014-CCV3 ✓	QC	44	1705628	✓	
7J16014-CCB3 ✓	QC	45			
F710306-BLK1 ✓	QC	46			
F710306-BLK2 ✓	QC	47			
F710306-BS1 ✓	QC	48			
F710306-BSD1 ✓	QC	49			
1709574-02 ✓	Hg-CVAFS-S-7474	50			
1709574-03 ✓	Hg-CVAFS-S-7474	51			
1709574-04 ✓	Hg-CVAFS-S-7474	52			
1709574-05 ✓	Hg-CVAFS-S-7474	53			
1709574-06 ✓	Hg-CVAFS-S-7474	54			
1709574-07 ✓	Hg-CVAFS-S-7474	55			
7J16014-CCV4 ✓	QC	56	1705628	✓	
7J16014-CCB4 ✓	QC	57			
1709574-08 ✓	Hg-CVAFS-S-7474	58			
1709574-09 ✓	Hg-CVAFS-S-7474	59			
1709574-10 ✓	Hg-CVAFS-S-7474	60			
1709574-11 ✓	Hg-CVAFS-S-7474	61			
1709574-12 ✓	Hg-CVAFS-S-7474	62			
1709574-13 ✓	Hg-CVAFS-S-7474	63			
1709574-14 ✓	Hg-CVAFS-S-7474	64			
1709574-15 ✓	Hg-CVAFS-S-7474	65			
1709575-01 ✓	Hg-CVAFS-S-7474	66			
1709575-02 ✓	Hg-CVAFS-S-7474	67			
7J16014-CCV5 ✓	QC	68	1705628	✓	
7J16014-CCB5 ✓	QC	69			
1709575-03 ✓	Hg-CVAFS-S-7474	70			

Due Date: 10/19/2017

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PREPARATION BENCH SHEET

F710305

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/11/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710305-BLK1	Blank	0.5	200					
F710305-BLK2	Blank	0.5	200					
F710305-BS1	LCS	0.5	200	1705554	40			
F710305-BSD1	LCS Dup	0.5	200	1705554	40			
F710305-MS1	Matrix Spike [1709572-01] <i>RM</i>	0.584	200	1705286	50			
F710305-MS2	Matrix Spike [1709572-02] <i>RM</i>	0.5157	200	1705286	50			
F710305-MSD1	Matrix Spike Dup [1709572-01] <i>RM</i>	0.5569	200	1705286	50			
F710305-MSD2	Matrix Spike Dup [1709572-02] <i>RM</i>	0.5172	200	1705286	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<i>R 10/16/17</i>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705286	THg 10,000ng/mL Primary Spiking Standard		30-Nov-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard		18-Mar-18 00:00	1705287	Omnitrace Hydrochloric Acid	30-Aug-20 00:00
				1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
				1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
				1705679	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
				1705900	7474 Potassium Bromate/Bromide Reagent	11-Oct-17 00:00
				1705961	3% SnCl2 THg reductant	25-Mar-18 00:00

PREPARATION BENCH SHEET

F710305

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/11/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709571-04	MM-T1-C3-B-17_SED_055-060CM	0.529	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709571-05	MM-T1-C3-B-17_SED_060-065CM	0.5071	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709571-06	MM-T1-C3-B-17_SED_065-070CM	0.558	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709571-07	MM-T1-C3-B-17_SED_070-075CM	0.5287	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-01	MM-T1-C3-B-17_SED_015-016CM	0.5207	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-01RE1	MM-T1-C3-B-17_SED_015-016CM	0.5207	200	-	-	-	Sample is mostly rock. BEF 10/11/17	Sample is mostly rock. BEF 10/11/17
1709572-02	MM-T1-C3-B-17_SED_016-017CM	0.5087	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-02RE1	MM-T1-C3-B-17_SED_016-017CM	0.5087	200	-	-	-	Sample is mostly rock. BEF 10/11/17	Sample is mostly rock. BEF 10/11/17
1709572-03	MM-T1-C3-B-17_SED_017-018CM	0.5208	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-04	MM-T1-C3-B-17_SED_018-019CM	0.5089	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-05	MM-T1-C3-B-17_SED_019-020CM	0.5336	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-06	MM-T1-C3-B-17_SED_020-022CM	0.5343	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-07	MM-T1-C3-B-17_SED_022-024CM	0.5037	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-08	MM-T1-C3-B-17_SED_024-026CM	0.5011	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-09	MM-T1-C3-B-17_SED_026-028CM	0.5325	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-10	MM-T1-C3-B-17_SED_028-030CM	0.5479	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-11	MM-T1-C3-B-17_SED_030-032CM	0.5264	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-12	MM-T1-C3-B-17_SED_032-034CM	0.5321	200	-	-	-		Sample is mostly rock. BEF 10/11/17
1709572-13	MM-T1-C3-B-17_SED_034-036CM	0.512	200	-	-	-		Sample is mostly rock. BEF 10/11/17

Due Date: 10/19/2017

PREPARATION BENCH SHEET

F710305

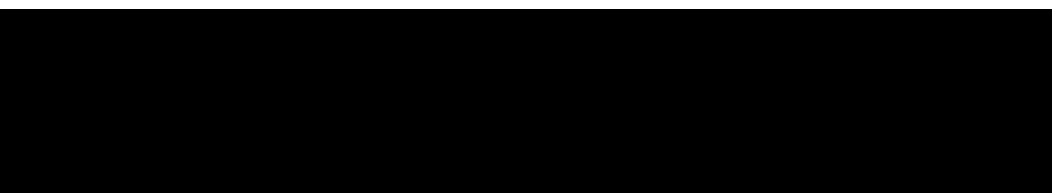
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/11/2017

1709572-14	MM-T1-C3-B-17_SED_036-038CM	0.5168	200	-	-	-	Sample is mostly rock. BEF 10/11/17
1709572-15	MM-T1-C3-B-17_SED_038-040CM	0.5107	200	-	-	-	Sample is mostly rock. BEF 10/11/17
1709574-01	MM-T1-C3-B-17_SED_000-001CM	0.5022	200	-	-	-	



PREPARATION BENCH SHEET

2600-3
Bx 10/13/17

F710305

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/11/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710305-BLK1	Blank	0.5	200					10x -
F710305-BLK2	Blank	0.5	200					10x -
F710305-BS1	LCS	0.5	200	1705554	40			10x -
F710305-BSD1	LCS Dup	0.5	200	1705554	40			10x -
F710305-MS1	Matrix Spike [1709572-01]	0.584	200	1705286	50			10x 400x -
F710305-MS2	Matrix Spike [1709572-02]	0.5157	200	1705286	50			400x -
F710305-MSD1	Matrix Spike Dup [1709572-01]	0.5569	200	1705286	50			400x -
F710305-MSD2	Matrix Spike Dup [1709572-02]	0.5172	200	1705286	50			400x -

Standard ID(s):
1705286 THg 10,000ng/mL Primary Spiking Standard
1705554 THg 1,000ng/mL Secondary Spiking Standard

Expiration:
30-Nov-17 00:00
18-Mar-18 00:00

Reagent ID(s):
1705287 Omnitrace Hydrochloric Acid
1705679 Fisher Nitric Acid, Tracemetal Grade
1705900 7474 Potassium Bromate/Bromide Reagent

Description:
Omnitrace Hydrochloric Acid
Fisher Nitric Acid, Tracemetal Grade
7474 Potassium Bromate/Bromide Reagent

Expiration:
30-Aug-20 00:00
15-Mar-19 00:00
11-Oct-17 00:00

10x = 5ml
400x = 125
50x = 1ml

1705610
1705611
1705961
1703192

2600-3
BC 10/13/17

PREPARATION BENCH SHEET

F710305

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/11/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709571-04	MM-T1-C3-B-17_SED_055-060CM	0.529	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709571-05	MM-T1-C3-B-17_SED_060-065CM	0.5071	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709571-06	MM-T1-C3-B-17_SED_065-070CM	0.558	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709571-07	MM-T1-C3-B-17_SED_070-075CM	0.5287	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-01	MM-T1-C3-B-17_SED_015-016CM	0.5207	200	-	-	-	50X → 10X -	Sample is mostly rock. BEF 10/11/17
1709572-02	MM-T1-C3-B-17_SED_016-017CM	0.5087	200	-	-	-	50X → 10X -	Sample is mostly rock. BEF 10/11/17
1709572-03	MM-T1-C3-B-17_SED_017-018CM	0.5208	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-04	MM-T1-C3-B-17_SED_018-019CM	0.5089	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-05	MM-T1-C3-B-17_SED_019-020CM	0.5336	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-06	MM-T1-C3-B-17_SED_020-022CM	0.5343	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-07	MM-T1-C3-B-17_SED_022-024CM	0.5037	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-08	MM-T1-C3-B-17_SED_024-026CM	0.5011	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-09	MM-T1-C3-B-17_SED_026-028CM	0.5325	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-10	MM-T1-C3-B-17_SED_028-030CM	0.5479	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-11	MM-T1-C3-B-17_SED_030-032CM	0.5264	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-12	MM-T1-C3-B-17_SED_032-034CM	0.5321	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-13	MM-T1-C3-B-17_SED_034-036CM	0.512	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-14	MM-T1-C3-B-17_SED_036-038CM	0.5168	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17
1709572-15	MM-T1-C3-B-17_SED_038-040CM	0.5107	200	-	-	-	10X -	Sample is mostly rock. BEF 10/11/17

Due Date: 10/19/2017

2600-3
BC 10/13/17

PREPARATION BENCH SHEET

F710305

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/11/2017

1709574-01	MM-T1-C3-B-17_SED_000-001CM	0.5022	200	-	-	-	100x /	
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Technician: RS Batch#: F710305 Date: 10/11/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: 7474
 Balance#: 15 Calibrated? Yes No Therm.#: NA Vial Type: Glass Teflon
 Calibrated? Yes No

*Time in: NA Actual Temp. (raw): NA °C w/ CF: NA °C

Time out: NA Actual Temp. (raw): NA °C w/ CF: NA °C
 *Time in can't begin before target temperature is reached

Final vol.: 25 mL (LIMS ID: 170420) Spike vol.: 40 ^{BS1380} µL (LIMS ID: 1705554)
 Spike Witness: AMB 10-11-17 (initial and date)

HCl LIMS ID: 1705287 Pipette SN#: 0007693 Calibration Date: 10/9/17
 HNO₃ LIMS ID: 1705679 Pipette SN#: 0007853 Calibration Date: 10/9/17
 70/30 LIMS ID: NA Dispenser #: 09N43351 Calibrated? Yes No
 Other Acid, LIMS ID: 1705900 Dispenser #: 12H07691 Yes
 Glass Vial # 279595-540 Boiling Chip lot # 170424 *Hotblock Position: NA

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F710305-BIK1	0.5028	238	1709572-11A*	0.5264	Comments F710305 on NS's spike w/ 50% of 1705286. RR vials * Sample's mostly rock RR vials
2	F710305-BIK2	0.5346	249	1709572-120*	0.5321	
3	F710305-BS1	0.5450	250	1709572-13A*	0.5120	
4	F710305-BS01	0.5693	264	1709572-14A*	0.5128	
5	1709571-04A*	0.5290	2712	1709572-15A*	0.5107	
6	1709571-05A*	0.5071	2813	1709574-01A	0.5022	
7	1709571-06A*	0.5580	29			
8	1709571-07A*	0.5287	30			
9	1709572-01A*	0.5207	31			
10	1709572-01A581	0.5840	32			
11	1709572-01A5801	0.5569	33			
12	1709572-02A*	0.5087	34			
13	1709572-02A582	0.5157	35			
14	1709572-02A5802	0.5172	36			
15	1709572-03A*	0.5208	37			
16	1709572-04A*	0.5089	38			
17	1709572-05A*	0.5336	39			
18	1709572-06A*	0.5340	40			
19	1709572-07A*	0.5037	41			
20	1709572-08A*	0.5011	42			
21	1709572-09A*	0.5325	43			
22	1709572-10A*	0.5479	44			

PREPARATION BENCH SHEET

F710306

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710306-BLK1	Blank	0.5	200					
F710306-BLK2	Blank	0.5	200					
F710306-BS1	Blank Spike	0.5	200	1705554	40			
F710306-BSD1	Blank Spike	0.5	200	1705554	40			
F710306-MS1	Matrix Spike [1709574-08]	0.5617	200	1705286	50			
F710306-MS2	Matrix Spike [1709575-01]	0.5855	200	1705286	50			
F710306-MSD1	Matrix Spike Dup [1709574-08]	0.5687	200	1705286	50			
F710306-MSD2	Matrix Spike Dup [1709575-01]	0.5427	200	1705286	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705286	THg 10,000ng/mL Primary Spiking Standard	30-Nov-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705679	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1705723	Omnitrace Hydrochloric Acid	22-Sep-20 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00
			1706063	7474 Potassium Bromate/Bromide Reagent	19-Oct-17 00:00

PREPARATION BENCH SHEET

F710306

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709574-02	MM-T1-C3-B-17_SED_001-002CM	0.5553	200	-	-	-		
1709574-03	MM-T1-C3-B-17_SED_002-003CM	0.5447	200	-	-	-		
1709574-04	MM-T1-C3-B-17_SED_003-004CM	0.5607	200	-	-	-		
1709574-05	MM-T1-C3-B-17_SED_004-005CM	0.5595	200	-	-	-		
1709574-06	MM-T1-C3-B-17_SED_005-006CM	0.5363	200	-	-	-		
1709574-07	MM-T1-C3-B-17_SED_006-007CM	0.5356	200	-	-	-		
1709574-08	MM-T1-C3-B-17_SED_007-008CM	0.569	200	-	-	-		
1709574-09	MM-T1-C3-B-17_SED_008-009CM	0.5498	200	-	-	-		
1709574-10	MM-T1-C3-B-17_SED_009-010CM	0.5795	200	-	-	-		
1709574-10RE1	MM-T1-C3-B-17_SED_009-010CM	0.5795	200	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709574-11	MM-T1-C3-B-17_SED_010-011CM	0.5934	200	-	-	-		
1709574-11RE1	MM-T1-C3-B-17_SED_010-011CM	0.5934	200	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709574-12	MM-T1-C3-B-17_SED_011-012CM	0.5378	200	-	-	-		
1709574-12RE1	MM-T1-C3-B-17_SED_011-012CM	0.5378	200	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709574-13	MM-T1-C3-B-17_SED_012-013CM	0.5569	200	-	-	-		
1709574-13RE1	MM-T1-C3-B-17_SED_012-013CM	0.5569	200	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709574-14	MM-T1-C3-B-17_SED_013-014CM	0.5435	200	-	-	-		
1709574-14RE1	MM-T1-C3-B-17_SED_013-014CM	0.5435	200	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709574-15	MM-T1-C3-B-17_SED_014-015CM	0.557	200	-	-	-		

Due Date: 10/19/2017

PREPARATION BENCH SHEET

F710306

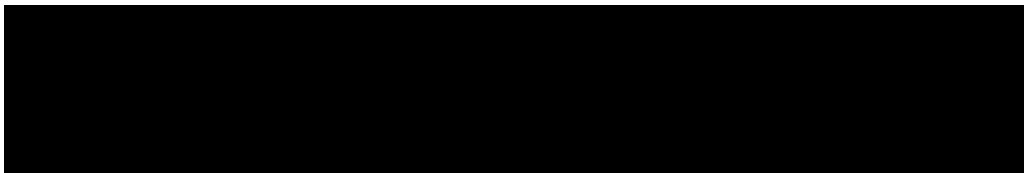
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

1709574-15RE1	MM-T1-C3-B-17_SED_014-015CM	0.557	200	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709575-01	FF-06-01-A-17_SED_00-01	0.531	200	-	-	-		
1709575-02	FF-06-01-A-17_SED_01-03	0.5736	200	-	-	-		
1709575-03	FF-06-01-A-17_SED_03-05	0.5793	200	-	-	-		
1709575-04	FF-06-01-A-17_SED_05-07	0.5338	200	-	-	-		
1709575-05	FF-06-01-A-17_SED_07-10	0.5724	200	-	-	-		
1709575-06	FF-06-01-A-17_SED_10-15	0.5505	200	-	-	-		



PREPARATION BENCH SHEET

F710306

Eurofins Frontier Global Sciences, Inc.

2600-3

BL 10/13/17

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710306-BLK1	Blank	0.5	200					10X
F710306-BLK2	Blank	0.5	200					10X
F710306-BS1	Blank Spike	0.5	200	1705554	40			10X
F710306-BSD1	Blank Spike	0.5	200	1705554	40			10X
F710306-MS1	Matrix Spike [1709574-08]	0.5617	200	1705286	50			400X
F710306-MS2	Matrix Spike [1709575-01]	0.5855	200	1705286	50			400X
F710306-MSD1	Matrix Spike Dup [1709574-08]	0.5687	200	1705286	50			400X
F710306-MSD2	Matrix Spike Dup [1709575-01]	0.5427	200	1705286	50			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705286	THg 10,000ng/mL Primary Spiking Standard	30-Nov-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705679	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1705723	Omnitrace Hydrochloric Acid	22-Sep-20 00:00
			1706063	7474 Potassium Bromate/Bromide Reagent	19-Oct-17 00:00

10X = 5mL
 400X = 125µL
 1000X = 500µL
 50X = 1µL

16057 1705610
 1705611
 1705961
 1705102

Due Date: 10/19/2017

PREPARATION BENCH SHEET

2600-3
 BC 10/13/17

F710306

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709574-02	MM-T1-C3-B-17_SED_001-002CM	0.5553	200	-	-	-	100x ✓	
1709574-03	MM-T1-C3-B-17_SED_002-003CM	0.5447	200	-	-	-	100x ✓	
1709574-04	MM-T1-C3-B-17_SED_003-004CM	0.5607	200	-	-	-	100x ✓	
1709574-05	MM-T1-C3-B-17_SED_004-005CM	0.5595	200	-	-	-	100x ✓	
1709574-06	MM-T1-C3-B-17_SED_005-006CM	0.5363	200	-	-	-	100x ✓	
1709574-07	MM-T1-C3-B-17_SED_006-007CM	0.5356	200	-	-	-	100x ✓	
1709574-08	MM-T1-C3-B-17_SED_007-008CM	0.569	200	-	-	-	100x ✓	
1709574-09	MM-T1-C3-B-17_SED_008-009CM	0.5498	200	-	-	-	100x ✓	
1709574-10	MM-T1-C3-B-17_SED_009-010CM	0.5795	200	-	-	-	100x → 10x ✓	
1709574-11	MM-T1-C3-B-17_SED_010-011CM	0.5934	200	-	-	-	100x → 10x ✓	
1709574-12	MM-T1-C3-B-17_SED_011-012CM	0.5378	200	-	-	-	100x → 10x ✓	
1709574-13	MM-T1-C3-B-17_SED_012-013CM	0.5569	200	-	-	-	50x → 10x ✓	
1709574-14	MM-T1-C3-B-17_SED_013-014CM	0.5435	200	-	-	-	50x → 10x ✓	
1709574-15	MM-T1-C3-B-17_SED_014-015CM	0.557	200	-	-	-	50x → 10x ✓	
1709575-01	FF-06-01-A-17_SED_00-01	0.531	200	-	-	-	50x ✓	
1709575-02	FF-06-01-A-17_SED_01-03	0.5736	200	-	-	-	50x ✓	
1709575-03	FF-06-01-A-17_SED_03-05	0.5793	200	-	-	-	100x ✓	
1709575-04	FF-06-01-A-17_SED_05-07	0.5338	200	-	-	-	100x ✓	
1709575-05	FF-06-01-A-17_SED_07-10	0.5724	200	-	-	-	100x ✓	

Due Date: 10/19/2017

PREPARATION BENCH SHEET

2600-3
Bx 10/13/17

F710306

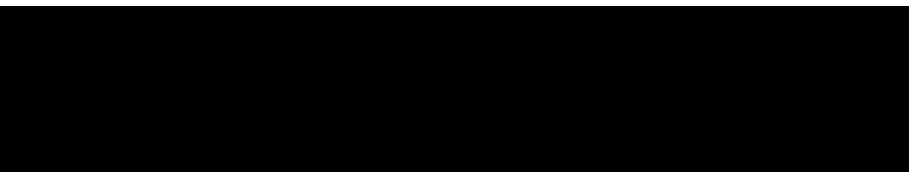
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

1709575-06	FF-06-01-A-17_SED_10-15	0.5505	200	-	-	-	100%	
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Technician: Duyen Batch#: F710306 Date: 10/12/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA 7474
 Balance#: 19 Calibrated? Yes No Therm.#: N/A Vial Type: Glass Teflon
 Calibrated? Yes No
 *Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 *Time in can't begin before target temperature is reached

Final vol.: 25 mL (LIMS ID: R0H20) Spike vol.: 40 µL (LIMS ID: 1705554)
 Spike Witness: PL 10/12/17 (initial and date)

HCl LIMS ID: 1705722 Pipette SN#: 0607852 Calibration Date: 10-09-17
 HNO₃ LIMS ID: 1705679 Pipette SN#: 0607693 Calibration Date: 10-9-17
 70/30 LIMS ID: N/A Dispenser #: 09W45351 Calibrated? Yes No
 Other Acid LIMS ID: 1706063 Dispenser #: 12407691 Yes
 Glass Vial # J264713-3025 Boiling Chip lot # 1704424 *Hotblock Position: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial # <u>10/12/17</u>	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F710306 blk1	0.5154	2308	F710306-MS02	0.5427	
2	F710306 blk2	0.5338	2409	1709575-02A	0.5736	
3	F710306 BSI	0.5774	2510	1709575-03A	0.5793	
4	F710306 BSI	0.5731	2611	1709575-04A	0.5338	Comments
5	1709574-02A	0.5553	2712	170957505A	0.5724	F710306
6	1709574-03A	0.5447	28	10/12/17 06A	0.54	source
7	1709574-04A	0.5607	2913	170957506A	0.5505	MS1 MS01
8	1709574-05A	0.5595	30			170957408
9	1709574-06A	0.5363	31			
10	1709574-07A	0.5356	32			F710306
11	170957408A	0.5690	33			MS2 MS02
12	F710306 MS1	0.5617	34			170957501
13	F710306 MS01	0.5687	35			F710306
14	1709574-09A	0.5498	36			ALL spike
15	1709574-10A	0.5795	37			MS1 MS01 MS2 MS2
16	1709574-11A	0.5934	38			= soul
17	1709574-12A	0.5378	39			10,000 µL
18	1709574-13A	0.5569	40			1705286
19	1709574-14A	0.5435	41			
20	1709574-15A	0.5570	42			
21	1709575-01A	0.5310	43			
22	F710306-MS2	0.5855	44			10/12/17

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J16014, 7J16015
Reviewer: <u>R 10/16/17</u>	Dataset ID(s): THg26003-171013-1
Date: 10/16/2017	WO (s) #: various
Batch #(s): F710305, F710306, F710214	

● Select the correct preparation method.

Analyte	Prep Method	Matrix
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation Water
<input type="checkbox"/> Hg0	NA	NA Water
<input type="checkbox"/> Inorg Hg	NA	NA Water

F710306
R2 styles 1789574-09
1789575-09, 05, 06 @ 10X
R 10/16/17

Analyst Initials: BC **Reviewer Initials:** R 10/16/17

- | | | | |
|---|---|--|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | | | |
| (b) Check 5% of transcription from Instrument print-out and Excel file | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | | | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 50 ml / aliquot = Excel dilution value | | | |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J16014, 7J16015
Reviewer: 0 <i>R 10/16/17</i>	Dataset ID(s): THg26003-171013-1
Date: 10/16/2017	WO (s) #: various
Batch #(s): F710305, F710306, F710214	0

Analyst Initials *BC* **Reviewer Initials** *R 10/16/17*

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: <u>OFF CURVE SAMPLES</u> | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J16014, 7J16015
Reviewer: 0 <i>RL 10/16/17</i>	Dataset ID(s): THg26003-171013-1
Date: 10/16/2017	WO (s) #: various
Batch #(s): F710305, F710306, F710214	0

Analyst Initials BC **Reviewer Initials** RL 10/16/17

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
- Files located at:** \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs
- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/27/2017 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 7/28/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 7/28/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

THg26002-171013-1



Frontier Global Sciences

Analysis Datasheet for Total Mercury

Date of Analysis: October 13, 2017
 Instrument #: Hg2600-2
 LIMS Sequence #: 7J16021, 7J16020, 7J16019

Analyst: BC
 Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	97.93 units	195.86	87.43 units	174.87	99.1 %Rec
SEQ-CAL2	1	1.00 ng/L	200.34 units	200.34	189.84 units	189.84	107.6 %Rec
SEQ-CAL3	1	5.00 ng/L	878.51 units	175.70	868.01 units	173.60	98.4 %Rec
SEQ-CAL4	1	20.00 ng/L	3487.60 units	174.38	3477.11 units	173.86	98.6 %Rec
SEQ-CAL5	1	40.00 ng/L	6803.73 units	170.09	6793.23 units	169.83	96.3 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF Corr. St Dev RF Corr. RSD CF Uncorr. Mean RF
 176.40 +/- 7.75 4.4% RSD 183.27

QUALITY ASSURANCE
 PEER-REVIEWED

INITIALS: DMW 10.10.17

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	10.50 units	±3.15	0.06 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	2	0.855 ng/L	±0.559
BLK	2	3	0.000 ng/L	±0.035
BLK	3	1	-0.009 ng/L	
BLK	4	1	0.255 ng/L	
BLK	5	3	1.600 ng/L	±0.562
BLK	6	0	0.000 ng/L	

Instrument	Sample			Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
	Analyst	Type	LabNumber												
Hg2600-2	BC	CAL	SEQ-IBL1	1	10/13/2017 8:29:09	87227-1.RAW	8:29:09	11.75			1.3	0.007	0.007	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	10/13/2017 8:33:17	87228-1.RAW	8:33:17	12.83			2.3	0.013	0.013	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	10/13/2017 8:37:26	87229-1.RAW	8:37:26	6.91			-3.6	-0.020	-0.020	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	10/13/2017 8:41:34	87230-1.RAW	8:41:34	97.93			87.4	0.496	0.496	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	10/13/2017 8:45:43	87231-1.RAW	8:45:43	200.34			189.8	1.076	1.076	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	10/13/2017 8:49:51	87232-1.RAW	8:49:51	878.51			868.0	4.921	4.921	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	10/13/2017 8:54:00	87233-1.RAW	8:54:00	3487.60			3477.1	19.712	19.712	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	10/13/2017 8:58:08	87234-1.RAW	8:58:08	6803.73			6793.2	38.511	38.511	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	10/13/2017 9:02:16	87235-1.RAW	9:02:16	887.55			877.0	4.972	4.972	ng/L	
Hg2600-2	BC	BLK	F710324-BLK1	10	10/13/2017 9:06:25	87236-1.RAW	9:06:25	32.56	1		22.1	0.125	1.251	ng/L	
Hg2600-2	BC	BLK	F710324-BLK2	10	10/13/2017 9:10:33	87237-1.RAW	9:10:33	18.61	1		8.1	0.046	0.460	ng/L	
Hg2600-2	BC	SAM	F710324-BS1	10	10/13/2017 9:14:42	87238-1.RAW	9:14:42	3425.61	1		3415.1	19.275	192.746	ng/L	
Hg2600-2	BC	SAM	F710324-BSD1	10	10/13/2017 9:18:50	87239-1.RAW	9:18:50	3577.90	1		3567.4	20.138	201.379	ng/L	
Hg2600-2	BC	SAM	1709566-14RE1	10	10/13/2017 9:22:59	87240-1.RAW	9:22:59	1302.97	1		1292.5	7.241	72.414	ng/L	
Hg2600-2	BC	SAM	1709566-15RE1	10	10/13/2017 9:27:07	87241-1.RAW	9:27:07	951.28	1		940.8	5.248	52.477	ng/L	
Hg2600-2	BC	SAM	1709567-01RE2	100	10/13/2017 9:31:15	87242-1.RAW	9:31:15	993.29	1		982.8	5.563	556.286	ng/L	
Hg2600-2	BC	SAM	1709567-02RE1	100	10/13/2017 9:35:24	87243-1.RAW	9:35:24	759.13	1		748.6	4.235	423.540	ng/L	
Hg2600-2	BC	SAM	1709567-03RE1	100	10/13/2017 9:39:32	87244-1.RAW	9:39:32	894.65	1		884.2	5.004	500.370	ng/L	
Hg2600-2	BC	SAM	1709567-04RE1	100	10/13/2017 9:43:41	87245-1.RAW	9:43:41	711.58	1		701.1	3.966	396.586	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	10/13/2017 9:47:49	87246-1.RAW	9:47:49	861.64			851.1	4.825	4.825	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	10/13/2017 9:51:57	87247-1.RAW	9:51:57	22.50			12.0	0.068	0.068	ng/L	
Hg2600-2	BC	SAM	1709567-05RE1	100	10/13/2017 9:57:53	87248-1.RAW	9:57:53	602.54	1		592.0	3.348	334.775	ng/L	
Hg2600-2	BC	SAM	1709567-06RE2	100	10/13/2017 10:02:01	87249-1.RAW	10:02:01	656.30	1		645.8	3.653	365.251	ng/L	
Hg2600-2	BC	SAM	1709567-07RE1	100	10/13/2017 10:06:10	87250-1.RAW	10:06:10	707.46	1		697.0	3.943	394.252	ng/L	
Hg2600-2	BC	SAM	1709567-08RE2	100	10/13/2017 10:10:18	87251-1.RAW	10:10:18	621.21	1		610.7	3.454	345.357	ng/L	
Hg2600-2	BC	SAM	1709567-09RE2	100	10/13/2017 10:14:26	87252-1.RAW	10:14:26	821.64	1		811.1	4.590	458.981	ng/L	
Hg2600-2	BC	SAM	1709567-10RE2	100	10/13/2017 10:18:35	87253-1.RAW	10:18:35	660.39	1		649.9	3.676	367.570	ng/L	
Hg2600-2	BC	SAM	1709567-11RE1	100	10/13/2017 10:22:43	87254-1.RAW	10:22:43	725.80	1		715.3	4.047	404.651	ng/L	
Hg2600-2	BC	SAM	1709567-12RE1	100	10/13/2017 10:26:52	87255-1.RAW	10:26:52	478.83	1		468.3	2.646	264.640	ng/L	
Hg2600-2	BC	SAM	1709567-13RE1	100	10/13/2017 10:31:00	87256-1.RAW	10:31:00	567.20	1		556.7	3.147	314.737	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	10/13/2017 10:35:09	87257-1.RAW	10:35:09	533.99	1		523.5	2.959	295.909	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	10/13/2017 10:39:17	87258-1.RAW	10:39:17	895.85			885.4	5.019	5.019	ng/L	
Hg2600-2	BC	SAM	1709567-15RE1	100	10/13/2017 10:43:25	87259-1.RAW	10:43:25	24.57			14.1	0.080	0.080	ng/L	
Hg2600-2	BC	SAM	1709568-01RE2	10	10/13/2017 10:47:34	87260-1.RAW	10:47:34	519.88	1		509.4	2.879	287.914	ng/L	
Hg2600-2	BC	SAM	1709568-02RE1	10	10/13/2017 10:51:42	87261-1.RAW	10:51:42	192.09	1		181.6	0.944	9.439	ng/L	
Hg2600-2	BC	SAM	1709568-02RE1	10	10/13/2017 10:55:51	87262-1.RAW	10:55:51	237.96	1		227.5	1.204	12.039	ng/L	
Hg2600-2	BC	SAM	1709568-03RE1	10	10/13/2017 10:59:59	87263-1.RAW	10:59:59	201.46	1		191.0	0.997	9.970	ng/L	
Hg2600-2	BC	SAM	F710324-MS1	400	10/13/2017 11:04:08	87264-1.RAW	11:04:08	1232.98	1		1222.5	6.928	2771.239	ng/L	
Hg2600-2	BC	SAM	F710324-MSD1	400	10/13/2017 11:08:16	87265-1.RAW	11:08:16	1304.62	1		1294.1	7.334	2933.694	ng/L	
Hg2600-2	BC	SAM	F710324-MS2	400	10/13/2017 11:12:24	87266-1.RAW	11:12:24	1247.34	1		1236.8	7.010	2803.804	ng/L	
Hg2600-2	BC	SAM	F710324-MSD2	400	10/13/2017 11:16:33	87267-1.RAW	11:16:33	1264.44	1		1253.9	7.106	2842.576	ng/L	
Hg2600-2	BC	SAM	BS	20	10/13/2017 11:20:41	87268-1.RAW	11:20:41	885.26		X	874.8	4.959	99.180	ng/L	
Hg2600-2	BC	SAM	BSD	20	10/13/2017 11:24:50	87269-1.RAW	11:24:50	914.65		X	904.2	5.126	102.512	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	10/13/2017 11:28:58	87270-1.RAW	11:28:58	860.02			849.5	4.816	4.816	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	10/13/2017 11:33:06	87271-1.RAW	11:33:06	18.92			8.4	0.048	0.048	ng/L	
Hg2600-2	BC	SAM	BS2	400	10/13/2017 11:37:15	87272-1.RAW	11:37:15	1061.83		X	1051.3	5.960	2384.000	ng/L	
Hg2600-2	BC	BLK	F710345-BLK1	1	10/13/2017 11:41:24	87273-1.RAW	11:41:24	15.02	2		4.5	0.026	0.026	ng/L	
Hg2600-2	BC	BLK	F710345-BLK2	1	10/13/2017 11:45:33	87274-1.RAW	11:45:33	13.08	2		2.6	0.015	0.015	ng/L	
Hg2600-2	BC	BLK	F710345-BLK3	1	10/13/2017 11:49:41	87275-1.RAW	11:49:41	3.43	2		-7.1	-0.040	-0.040	ng/L	
Hg2600-2	BC	BLK	F710345-BLK4	1	10/13/2017 11:53:50	87276-1.RAW	11:53:50	8.92	3		-1.6	-0.009	-0.009	ng/L	
Hg2600-2	BC	BLK	F710345-BLK5	10	10/13/2017 11:57:58	87277-1.RAW	11:57:58	15.00	4		4.5	0.026	0.255	ng/L	
Hg2600-2	BC	SAM	F710345-BS1	1	10/13/2017 12:02:07	87278-1.RAW	12:02:07	2592.39	2		2581.9	14.637	14.637	ng/L	
Hg2600-2	BC	SAM	F710345-BSD1	1	10/13/2017 12:06:15	87279-1.RAW	12:06:15	2618.62	2		2608.1	14.785	14.785	ng/L	
Hg2600-2	BC	SAM	1710276-01	1	10/13/2017 12:10:24	87280-1.RAW	12:10:24	196.86	2		186.4	1.056	1.056	ng/L	
Hg2600-2	BC	SAM	1710276-02	10	10/13/2017 12:14:32	87281-1.RAW	12:14:32	1313.66	3		1303.2	7.388	73.885	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	10/13/2017 12:18:40	87282-1.RAW	12:18:40	852.35			841.9	4.772	4.772	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	10/13/2017 12:22:49	87283-1.RAW	12:22:49	28.02			17.5	0.099	0.099	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	SAM	1710276-03	1	10/13/2017 12:26:57	87284-1.RAW	12:26:57	213.26	2		202.8	1.149	1.149	ng/L	
Hg2600-2	BC	SAM	1710324-01	1	10/13/2017 12:31:06	87285-1.RAW	12:31:06	1709.85	2		1699.4	9.634	9.634	ng/L	
Hg2600-2	BC	SAM	1710328-11RE1	1	10/13/2017 12:35:14	87286-1.RAW	12:35:14	81.38	2		70.9	0.402	0.402	ng/L	
Hg2600-2	BC	SAM	1710328-12RE1	1	10/13/2017 12:39:22	87287-1.RAW	12:39:22	100.75	2		90.3	0.512	0.512	ng/L	
Hg2600-2	BC	SAM	1710350-01	1	10/13/2017 12:43:31	87288-1.RAW	12:43:31	939.51	2		929.0	5.266	5.266	ng/L	
Hg2600-2	BC	SAM	1710350-02	1	10/13/2017 12:47:39	87289-1.RAW	12:47:39	55.69	2		45.2	0.256	0.256	ng/L	
Hg2600-2	BC	SAM	1710350-03	1	10/13/2017 12:51:48	87290-1.RAW	12:51:48	775.35	2		764.9	4.336	4.336	ng/L	
Hg2600-2	BC	SAM	1710350-04	1	10/13/2017 12:55:56	87291-1.RAW	12:55:56	18.48	2		8.0	0.045	0.045	ng/L	
Hg2600-2	BC	SAM	1710350-05	10	10/13/2017 13:00:05	87292-1.RAW	13:00:05	434.95	4		424.5	2.381	23.807	ng/L	
Hg2600-2	BC	SAM	1710350-06	1	10/13/2017 13:04:13	87293-1.RAW	13:04:13	13.26	2		2.8	0.016	0.016	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	10/13/2017 13:08:21	87294-1.RAW	13:08:21	866.36			855.9	4.852	4.852	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	10/13/2017 13:12:30	87295-1.RAW	13:12:30	17.03			6.5	0.037	0.037	ng/L	
Hg2600-2	BC	SAM	1710354-01	1	10/13/2017 13:16:38	87296-1.RAW	13:16:38	8.61	2		-1.9	-0.011	-0.011	ng/L	
Hg2600-2	BC	SAM	1710354-02	10	10/13/2017 13:20:47	87297-1.RAW	13:20:47	449.17	2	22-2	438.7	2.487	24.868	ng/L	
Hg2600-2	BC	SAM	1710354-03	1	10/13/2017 13:24:55	87298-1.RAW	13:24:55	1063.90	2	22-2	1053.4	5.972	5.972	ng/L	
Hg2600-2	BC	SAM	1710359-01	1	10/13/2017 13:29:03	87299-1.RAW	13:29:03	391.28	2	22-2	380.8	2.159	2.159	ng/L	
Hg2600-2	BC	SAM	1710359-02	1	10/13/2017 13:33:12	87300-1.RAW	13:33:12	8219.88	2		8209.4	46.539	46.539	ng/L	
Hg2600-2	BC	SAM	1710359-03	1	10/13/2017 13:37:20	87301-1.RAW	13:37:20	54.70	2		44.2	0.251	0.251	ng/L	
Hg2600-2	BC	SAM	1710359-04	1	10/13/2017 13:41:44	87302-1.RAW	13:41:44	27.65	2		17.2	0.097	0.097	ng/L	
Hg2600-2	BC	SAM	F710345-DUP1	1	10/13/2017 13:46:12	87303-1.RAW	13:46:12	1716.10	2		1705.6	9.669	9.669	ng/L	
Hg2600-2	BC	SAM	F710345-MS1	1	10/13/2017 13:50:21	87304-1.RAW	13:50:21	3841.95	2		3831.5	21.720	21.720	ng/L	
Hg2600-2	BC	SAM	F710345-MSD1	1	10/13/2017 13:54:29	87305-1.RAW	13:54:29	3910.61	2		3900.1	22.110	22.110	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	10/13/2017 13:58:38	87306-1.RAW	13:58:38	866.63			856.1	4.853	4.853	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	10/13/2017 14:02:46	87307-1.RAW	14:02:46	38.01			27.5	0.156	0.156	ng/L	
Hg2600-2	BC	SAM	F710345-MS2	1	10/13/2017 14:06:55	87308-1.RAW	14:06:55	3529.82	2		3519.3	19.951	19.951	ng/L	
Hg2600-2	BC	SAM	F710345-MSD2	1	10/13/2017 14:11:03	87309-1.RAW	14:11:03	3535.79	2		3525.3	19.985	19.985	ng/L	
Hg2600-2	BC	SAM	1710359-02RE1	10	10/13/2017 14:15:11	87310-1.RAW	14:15:11	879.57	2		869.1	4.927	49.267	ng/L	
Hg2600-2	BC	SAM	1710359-03RE1	1	10/13/2017 14:19:20	87311-1.RAW	14:19:20	33.28	2		22.8	0.129	0.129	ng/L	
Hg2600-2	BC	BLK	F710214-BLK1	20	10/13/2017 14:23:28	87312-1.RAW	14:23:28	30.27	5		19.8	0.112	2.242	ng/L	
Hg2600-2	BC	BLK	F710214-BLK2	20	10/13/2017 14:27:37	87313-1.RAW	14:27:37	22.51	5		12.0	0.068	1.362	ng/L	
Hg2600-2	BC	BLK	F710214-BLK3	20	10/13/2017 14:31:45	87314-1.RAW	14:31:45	21.06	5		10.6	0.060	1.197	ng/L	
Hg2600-2	BC	SAM	*F710214-BLK4	20	10/13/2017 14:35:54	87315-1.RAW	14:35:54	29.18	5		18.7	0.026	0.518	ng/L	
Hg2600-2	BC	SAM	*F710214-BLK5	20	10/13/2017 14:40:02	87316-1.RAW	14:40:02	13.65	5		3.2	-0.062	-1.243	ng/L	
Hg2600-2	BC	SAM	F710214-BS1	20	10/13/2017 14:44:10	87317-1.RAW	14:44:10	884.56	5		874.1	4.875	97.500	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	10/13/2017 14:48:19	87318-1.RAW	14:48:19	853.85			843.4	4.781	4.781	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	10/13/2017 14:52:27	87319-1.RAW	14:52:27	23.63			13.1	0.074	0.074	ng/L	
Hg2600-2	BC	SAM	F710214-BSD1	20	10/13/2017 14:56:36	87320-1.RAW	14:56:36	904.08	5		893.6	4.986	99.714	ng/L	
Hg2600-2	BC	SAM	F710214-BS2	400	10/13/2017 15:00:44	87321-1.RAW	15:00:44	977.61	5		967.1	5.479	2191.405	ng/L	
Hg2600-2	BC	SAM	F710345-MS3	1	10/13/2017 15:04:52	87322-1.RAW	15:04:52	4370.34	2		4359.8	24.716	24.716	ng/L	
Hg2600-2	BC	SAM	F710345-MSD3	1	10/13/2017 15:09:01	87323-1.RAW	15:09:01	4497.60	2		4487.1	25.437	25.437	ng/L	
Hg2600-2	BC	SAM	1709618-01	50	10/13/2017 15:13:10	87324-1.RAW	15:13:10	4229.58	5		4219.1	23.886	1194.292	ng/L	
Hg2600-2	BC	SAM	1709618-02	50	10/13/2017 15:17:18	87325-1.RAW	15:17:18	4209.48	5		4199.0	23.772	1188.595	ng/L	
Hg2600-2	BC	SAM	1709618-03	50	10/13/2017 15:21:26	87326-1.RAW	15:21:26	4609.07	5		4598.6	26.037	1301.859	ng/L	
Hg2600-2	BC	SAM	1709618-04	50	10/13/2017 15:25:35	87327-1.RAW	15:25:35	7412.13	5		7401.6	41.928	2096.382	ng/L	
Hg2600-2	BC	SAM	1709618-05	50	10/13/2017 15:29:43	87328-1.RAW	15:29:43	5317.43	5		5306.9	30.053	1502.643	ng/L	
Hg2600-2	BC	SAM	1709618-06	50	10/13/2017 15:33:51	87329-1.RAW	15:33:51	5421.66	5		5411.2	30.644	1532.188	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8	1	10/13/2017 15:38:00	87330-1.RAW	15:38:00	890.35			879.9	4.988	4.988	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB8	1	10/13/2017 15:42:08	87331-1.RAW	15:42:08	46.49			36.0	0.204	0.204	ng/L	
Hg2600-2	BC	SAM	F710214-DUP1	50	10/13/2017 15:46:17	87332-1.RAW	15:46:17	4289.19	5		4278.7	24.224	1211.189	ng/L	
Hg2600-2	BC	SAM	F710214-MS1	400	10/13/2017 15:50:25	87333-1.RAW	15:50:25	2722.60	5		2712.1	15.371	6148.340	ng/L	
Hg2600-2	BC	SAM	F710214-MSD1	400	10/13/2017 15:54:33	87334-1.RAW	15:54:33	2642.08	5		2631.6	14.914	5965.745	ng/L	
Hg2600-2	BC	SAM	F710214-MS2	400	10/13/2017 15:58:42	87335-1.RAW	15:58:42	2658.21	5		2647.7	15.006	6002.327	ng/L	
Hg2600-2	BC	SAM	F710214-MSD2	400	10/13/2017 16:02:50	87336-1.RAW	16:02:50	2707.09	5		2696.6	15.283	6113.174	ng/L	
Hg2600-2	BC	SAM	1709618-04RE1	100	10/13/2017 16:06:59	87337-1.RAW	16:06:59	3665.30	5		3654.8	20.703	2070.297	ng/L	
Hg2600-2	BC	SAM	1709618-05RE1	50	10/13/2017 16:11:07	87338-1.RAW	16:11:07	5021.01	5		5010.5	28.372	1418.624	ng/L	
Hg2600-2	BC	SAM	1709619-03	400	10/13/2017 16:15:16	87339-1.RAW	16:15:16	761.36	5		750.9	4.253	1701.050	ng/L	
Hg2600-2	BC	SAM	1709619-04	400	10/13/2017 16:19:24	87340-1.RAW	16:19:24	694.74	5		684.2	3.875	1549.976	ng/L	
Hg2600-2	BC	SAM	1709619-05	400	10/13/2017 16:23:33	87341-1.RAW	16:23:33	406.36	5		395.9	2.240	896.060	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV9	1	10/13/2017 16:27:41	87342-1.RAW	16:27:41	879.44			868.9	4.926	4.926	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB9	1	10/13/2017 16:31:49	87343-1.RAW	16:31:49	37.27			26.8	0.152	0.152	ng/L	

TotalMercury EPA1631
 Operatr BC BlankSi 10.496 Calib Eqn: Conc = (Area-10.49 Run Date: ##### Blank SD: 3.151244728
 Worksh THg2600(CalibFa 176.4 Status: QC Warnings:6/QC E Run Time: 13:42:03 Blank RSD%: 30.0226137
 Method ##### R: 0.9999 R²: 0.9999 CF SD: 7.752893885
 Descrip THg26002-171013-1 CF RSD%: 4.39509337

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean				0.00	4.38					87222-1.RAW	8:09:44	772.68	Clean	OK	1
clean				0.00	0.01					87223-1.RAW	8:12:35	1.49	Clean	OK	1
ws				10.50	0.00					87224-1.RAW	8:16:44	7.91	Sample	OK	1
ws				10.50	0.00					87225-1.RAW	8:20:52	5.44	Sample	OK	1
ws				10.50	0.00					87226-1.RAW	8:25:01	5.88	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.07					87227-1.RAW	8:29:09	11.75	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.07					87228-1.RAW	8:33:17	12.83	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.04					87229-1.RAW	8:37:26	6.91	Sample	OK	1
SEQ-CAL1	A4		1	10.50	0.50			99.13		87230-1.RAW	8:41:34	97.93	Sample	OK	1
SEQ-CAL2	A5		1	10.50	1.08			107.62		87231-1.RAW	8:45:43	200.34	Sample	OK	1
SEQ-CAL3	A6		1	10.50	4.92			98.41		87232-1.RAW	8:49:51	878.51	Sample	OK	1
SEQ-CAL4	A7		1	10.50	19.71			98.56		87233-1.RAW	8:54:00	3487.60	Sample	OK	1
SEQ-CAL5	A8		1	10.50	38.51			96.28		87234-1.RAW	8:58:08	6803.73	Sample	OK	1
SEQ-ICV1	A9		1	10.50	4.97			99.44		87235-1.RAW	9:02:16	887.55	Sample	OK	1
F710324-BLK1	A10		10	10.50	1.25					87236-1.RAW	9:06:25	32.56	Sample	OK	1
F710324-BLK2	A11		10	10.50	0.46					87237-1.RAW	9:10:33	18.61	Sample	OK	1
F710324-BS1	A12		10	10.50	193.60					87238-1.RAW	9:14:42	3425.61	Sample	OK	1
F710324-BSD1	A13		10	10.50	202.23					87239-1.RAW	9:18:50	3577.90	Sample	OK	1
1709566-14RE1	A14		10	10.50	73.27					87240-1.RAW	9:22:59	1302.97	Sample	OK	1
1709566-15RE1	A15		10	10.50	53.33					87241-1.RAW	9:27:07	951.28	Sample	OK	1
1709567-01RE2	A16		100	10.50	557.14					87242-1.RAW	9:31:15	993.29	Sample	OK	1
1709567-02RE1	A17		100	10.50	424.40					87243-1.RAW	9:35:24	759.13	Sample	OK	1
1709567-03RE1	A18		100	10.50	501.23					87244-1.RAW	9:39:32	894.65	Sample	OK	1
1709567-04RE1	A19		100	10.50	397.44					87245-1.RAW	9:43:41	711.58	Sample	OK	1
SEQ-CCV1	A20		1	10.50	4.83			96.50		87246-1.RAW	9:47:49	861.64	Sample	OK	1
SEQ-CCB1	A21		1	10.50	0.07			0.00		87247-1.RAW	9:51:57	22.50	Sample	OK	1
1709567-05RE1	B1		100	10.50	335.63					87248-1.RAW	9:57:53	602.54	Sample	OK	1
1709567-06RE2	B2		100	10.50	366.11					87249-1.RAW	10:02:01	656.30	Sample	OK	1
1709567-07RE1	B3		100	10.50	395.11					87250-1.RAW	10:06:10	707.46	Sample	OK	1
1709567-08RE2	B4		100	10.50	346.21					87251-1.RAW	10:10:18	621.21	Sample	OK	1
1709567-09RE2	B5		100	10.50	459.84					87252-1.RAW	10:14:26	821.64	Sample	OK	1
1709567-10RE2	B6		100	10.50	368.43					87253-1.RAW	10:18:35	660.39	Sample	OK	1
1709567-11RE1	B7		100	10.50	405.51					87254-1.RAW	10:22:43	725.80	Sample	OK	1
1709567-12RE1	B8		100	10.50	265.50					87255-1.RAW	10:26:52	478.83	Sample	OK	1
1709567-13RE1	B9		100	10.50	315.59					87256-1.RAW	10:31:00	567.20	Sample	OK	1
1709567-14RE1	B10		100	10.50	296.76					87257-1.RAW	10:35:09	533.99	Sample	OK	1
SEQ-CCV2	B11		1	10.50	5.02			100.38		87258-1.RAW	10:39:17	895.85	Sample	OK	1
SEQ-CCB2	B12		1	10.50	0.08			0.00		87259-1.RAW	10:43:25	24.57	Sample	OK	1
1709567-15RE1	B13		100	10.50	288.77					87260-1.RAW	10:47:34	519.88	Sample	OK	1
1709568-01RE2	B14		10	10.50	10.29					87261-1.RAW	10:51:42	192.09	Sample	OK	1
1709568-02RE1	B15		10	10.50	12.89					87262-1.RAW	10:55:51	237.96	Sample	OK	1
1709568-03RE1	B16		10	10.50	10.83					87263-1.RAW	10:59:59	201.46	Sample	OK	1
F710324-MS1	B17		400	10.50	2772.09			23441.82		87264-1.RAW	11:04:08	1232.98	Sample	OK	1

F710324-MSD1	B18	400	10.50	2934.55		87265-1.RAW	11:08:16	1304.62	Sample	OK	1
F710324-MS2	B19	400	10.50	2804.66	95.51	87266-1.RAW	11:12:24	1247.34	Sample	OK	1
F710324-MSD2	B20	400	10.50	2843.43		87267-1.RAW	11:16:33	1264.44	Sample	OK	1
BS	B21	20	10.50	99.18		87268-1.RAW	11:20:41	885.26	Sample	OK	1
BSD	C1	20	10.50	102.51		87269-1.RAW	11:24:50	914.65	Sample	OK	1
SEQ-CCV3	C2	1	10.50	4.82	96.32	87270-1.RAW	11:28:58	860.02	Sample	OK	1
SEQ-CCB3	C3	1	10.50	0.05	0.00	87271-1.RAW	11:33:06	18.92	Sample	OK	1
BS2	C4	400	10.50	2384.00		87272-1.RAW	11:37:15	1061.83	Sample	OK	1
F710345-BLK1	C5	1	10.50	0.03		87273-1.RAW	11:41:24	15.02	Sample	OK	1
F710345-BLK2	C6	1	10.50	0.01		87274-1.RAW	11:45:33	13.08	Sample	OK	1
F710345-BLK3	C7	1	10.50	0.00		87275-1.RAW	11:49:41	3.43	Sample	OK	1
F710345-BLK4	C8	1	10.50	0.00		87276-1.RAW	11:53:50	8.92	Sample	OK	1
F710345-BLK5	C9	10	10.50	0.26		87277-1.RAW	11:57:58	15.00	Sample	OK	1
F710345-BS1	C10	1	10.50	14.64		87278-1.RAW	12:02:07	2592.39	Sample	OK	1
F710345-BS1	C11	1	10.50	14.79		87279-1.RAW	12:06:15	2618.62	Sample	OK	1
1710276-01	C12	1	10.50	1.06		87280-1.RAW	12:10:24	196.86	Sample	OK	1
1710276-02	C13	10	10.50	73.88		87281-1.RAW	12:14:32	1313.66	Sample	OK	1
SEQ-CCV4	C14	1	10.50	4.77	95.45	87282-1.RAW	12:18:40	852.35	Sample	OK	1
SEQ-CCB4	C15	1	10.50	0.10	0.00	87283-1.RAW	12:22:49	28.02	Sample	OK	1
1710276-03	C16	1	10.50	1.15		87284-1.RAW	12:26:57	213.26	Sample	OK	1
1710324-01	C17	1	10.50	9.63		87285-1.RAW	12:31:06	1709.85	Sample	OK	1
1710328-11RE1	C18	1	10.50	0.40		87286-1.RAW	12:35:14	81.38	Sample	OK	1
1710328-12RE1	C19	1	10.50	0.51		87287-1.RAW	12:39:22	100.75	Sample	OK	1
1710350-01	C20	1	10.50	5.27		87288-1.RAW	12:43:31	939.51	Sample	OK	1
1710350-02	C21	1	10.50	0.26		87289-1.RAW	12:47:39	55.69	Sample	OK	1
1710350-03	A1	1	10.50	4.34		87290-1.RAW	12:51:48	775.35	Sample	OK	1
1710350-04	A2	1	10.50	0.05		87291-1.RAW	12:55:56	18.48	Sample	OK	1
1710350-05	A3	10	10.50	24.06		87292-1.RAW	13:00:05	434.95	Sample	OK	1
1710350-06	A4	1	10.50	0.02		87293-1.RAW	13:04:13	13.26	Sample	OK	1
SEQ-CCV5	A5	1	10.50	4.85	97.04	87294-1.RAW	13:08:21	866.36	Sample	OK	1
SEQ-CCB5	A6	1	10.50	0.04	0.00	87295-1.RAW	13:12:30	17.03	Sample	OK	1
1710354-01	A7	1	10.50	0.00		87296-1.RAW	13:16:38	8.61	Sample	OK	1
1710354-02	A8	10	10.50	24.87		87297-1.RAW	13:20:47	449.17	Sample	OK	1
1710354-03	A9	1	10.50	5.97		87298-1.RAW	13:24:55	1063.90	Sample	OK	1
1710359-01	A10	1	10.50	2.16		87299-1.RAW	13:29:03	391.28	Sample	OK	1
1710359-02	A11	1	10.50	46.54		87300-1.RAW	13:33:12	8219.88	Sample	FB	1
1710359-03	A12	1	10.50	0.25		87301-1.RAW	13:37:20	54.70	Sample	OK	1
1710359-04	A13	1	10.50	0.10		87302-1.RAW	13:41:44	27.65	Sample	OK	1
F710345-DUP1	A14	1	10.50	9.67		87303-1.RAW	13:46:12	1716.10	Sample	OK	1
F710345-MS1	A15	1	10.50	21.72	203.58	87304-1.RAW	13:50:21	3841.95	Sample	OK	1
F710345-MSD1	A16	1	10.50	22.11		87305-1.RAW	13:54:29	3910.61	Sample	OK	1
SEQ-CCV6	A17	1	10.50	4.85	97.07	87306-1.RAW	13:58:38	866.63	Sample	OK	1
SEQ-CCB6	A18	1	10.50	0.16	0.00	87307-1.RAW	14:02:46	38.01	Sample	OK	1
F710345-MS2	A19	1	10.50	19.95	925.39	87308-1.RAW	14:06:55	3529.82	Sample	OK	1
F710345-MSD2	A20	1	10.50	19.98		87309-1.RAW	14:11:03	3535.79	Sample	OK	1
1710359-02RE1	A21	10	10.50	49.27		87310-1.RAW	14:15:11	879.57	Sample	OK	1
1710359-03RE1	B1	1	10.50	0.13		87311-1.RAW	14:19:20	33.28	Sample	OK	1
F710214-BLK1	B2	20	10.50	2.24		87312-1.RAW	14:23:28	30.27	Sample	OK	1

F710214-BLK2	B3	20	10.50	1.36		87313-1.RAW	14:27:37	22.51	Sample	OK	1
F710214-BLK3	B4	20	10.50	1.20		87314-1.RAW	14:31:45	21.06	Sample	OK	1
F710214-BLK4	B5	20	10.50	2.12		87315-1.RAW	14:35:54	29.18	Sample	OK	1
F710214-BLK5	B6	20	10.50	0.36		87316-1.RAW	14:40:02	13.65	Sample	OK	1
F710214-BS1	B7	20	10.50	99.10		87317-1.RAW	14:44:10	884.56	Sample	OK	1
SEQ-CCV7	B8	1	10.50	4.78	95.62	87318-1.RAW	14:48:19	853.85	Sample	OK	1
SEQ-CCB7	B9	1	10.50	0.07	0.00	87319-1.RAW	14:52:27	23.63	Sample	OK	1
F710214-BSD1	B10	20	10.50	101.31		87320-1.RAW	14:56:36	904.08	Sample	OK	1
F710214-BS2	B11	400	10.50	2193.01		87321-1.RAW	15:00:44	977.61	Sample	OK	1
F710345-MS3	B12	1	10.50	24.72	1.13	87322-1.RAW	15:04:52	4370.34	Sample	OK	1
F710345-MSD3	B13	1	10.50	25.44		87323-1.RAW	15:09:01	4497.60	Sample	OK	1
1709618-01	B14	50	10.50	1195.89		87324-1.RAW	15:13:10	4229.58	Sample	OK	1
1709618-02	B15	50	10.50	1190.20		87325-1.RAW	15:17:18	4209.48	Sample	OK	1
1709618-03	B16	50	10.50	1303.46		87326-1.RAW	15:21:26	4609.07	Sample	OK	1
1709618-04	B17	50	10.50	2097.98		87327-1.RAW	15:25:35	7412.13	Sample	OK	1
1709618-05	B18	50	10.50	1504.24		87328-1.RAW	15:29:43	5317.43	Sample	OK	1
1709618-06	B19	50	10.50	1533.79		87329-1.RAW	15:33:51	5421.66	Sample	FB	1
SEQ-CCV8	B20	1	10.50	4.99	99.76	87330-1.RAW	15:38:00	890.35	Sample	OK	1
SEQ-CCB8	B21	1	10.50	0.20	0.00	87331-1.RAW	15:42:08	46.49	Sample	OK	1
F710214-DUP1	C1	50	10.50	1212.79		87332-1.RAW	15:46:17	4289.19	Sample	OK	1
F710214-MS1	C2	400	10.50	6149.94	506.67	87333-1.RAW	15:50:25	2722.60	Sample	OK	1
F710214-MSD1	C3	400	10.50	5967.35		87334-1.RAW	15:54:33	2642.08	Sample	OK	1
F710214-MS2	C4	400	10.50	6003.93	100.58	87335-1.RAW	15:58:42	2658.21	Sample	OK	1
F710214-MSD2	C5	400	10.50	6114.77		87336-1.RAW	16:02:50	2707.09	Sample	OK	1
1709618-04RE1	C6	100	10.50	2071.90		87337-1.RAW	16:06:59	3665.30	Sample	OK	1
1709618-05RE1	C7	50	10.50	1420.22		87338-1.RAW	16:11:07	5021.01	Sample	OK	1
1709619-03	C8	400	10.50	1702.65		87339-1.RAW	16:15:16	761.36	Sample	OK	1
1709619-04	C9	400	10.50	1551.58		87340-1.RAW	16:19:24	694.74	Sample	OK	1
1709619-05	C10	400	10.50	897.66		87341-1.RAW	16:23:33	406.36	Sample	OK	1
SEQ-CCV9	C11	1	10.50	4.93	98.52	87342-1.RAW	16:27:41	879.44	Sample	OK	1
SEQ-CCB9	C12	1	10.50	0.15	0.00	87343-1.RAW	16:31:49	37.27	Sample	OK	1

ANALYSIS SEQUENCE

7J16019

QUALITY ASSURANCE
PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS:

DMW 10.10.17

Analyzed: 10/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J16019-IBL1	QC	1			
7J16019-IBL2	QC	2			
7J16019-IBL3	QC	3			
7J16019-CAL1	QC	4	1704505		
7J16019-CAL2	QC	5	1704506		
7J16019-CAL3	QC	6	1704507		
7J16019-CAL4	QC	7	1704508		
7J16019-CAL5	QC	8	1704509		
7J16019-ICV1	QC	9	1705628		
7J16019-CCV1	QC	10	1705628		
7J16019-CCB1	QC	11			
7J16019-CCV2	QC	12	1705628		
7J16019-CCB2	QC	13			
7J16019-CCV3	QC	14	1705628		
7J16019-CCB3	QC	15			
F710345-BLK1	QC	16			
F710345-BLK2	QC	17			
F710345-BLK3	QC	18			
F710345-BLK4	QC	19			
F710345-BLK5	QC	20			
F710345-BS1	QC	21			
F710345-BSD1	QC	22			
1710276-01	Hg-CVAFS-W-1631	23			
1710276-02	Hg-CVAFS-W-1631	24			
7J16019-CCV4	QC	25	1705628		
7J16019-CCB4	QC	26			
1710276-03	Hg-CVAFS-W-1631	27			
1710324-01	Hg-CVAFS-W-1631	28			scan all data for Level IV report
1710328-11RE1	Hg-CVAFS-W-1631	29			Re-extract added 10/12/2017 by DM2
1710328-12RE1	Hg-CVAFS-W-1631	30			Re-extract added 10/12/2017 by DM2
1710350-01	Hg-CVAFS-W-1631	31			
1710350-02	Hg-CVAFS-W-1631	32			
1710350-03	Hg-CVAFS-W-1631	33			
1710350-04	Hg-CVAFS-W-1631	34			
1710350-05	Hg-CVAFS-W-1631	35			

Due Date: 10/16/2017

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ANALYSIS SEQUENCE

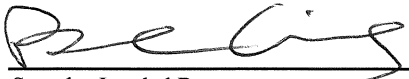
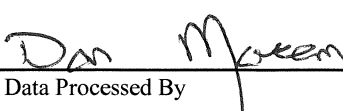
7J16019

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/13/2017


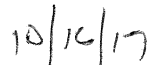
Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1710350-06	Hg-CVAFS-W-1631	36			
7J16019-CCV5	QC	37	1705628		
7J16019-CCB5	QC	38			
1710354-01	Hg-CVAFS-W-1631	39			client specific reporting limits
1710354-02	Hg-CVAFS-W-1631	40			client specific reporting limits
1710354-03	Hg-CVAFS-W-1631	41			client specific reporting limits
1710359-01	Hg-CVAFS-W-1631	42			
1710359-02	Hg-CVAFS-W-1631	43			
1710359-03	Hg-CVAFS-W-1631	44			
1710359-04	Hg-CVAFS-W-1631	45			
F710345-DUP1	QC	46			
F710345-MS1	QC	47			
F710345-MSD1	QC	48			
7J16019-CCV6	QC	49	1705628		
7J16019-CCB6	QC	50			
F710345-MS2	QC	51			
F710345-MSD2	QC	52			
1710359-02RE1	Hg-CVAFS-W-1631	53			Added 10/16/2017 by DM2
1710359-03RE1	Hg-CVAFS-W-1631	54			Added 10/16/2017 by DM2
7J16019-CCV7	QC	55	1705628		
7J16019-CCB7	QC	56			
F710345-MS3	QC	57			
F710345-MSD3	QC	58			
7J16019-CCV8	QC	59	1705628		
7J16019-CCB8	QC	60			


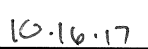

10/13/17

10/16/17

Samples Loaded By _____ Date _____ Data Processed By _____ Date _____

Failing Data Report - 7J16019

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1710359-02	Hg-CVAFS-W-1631	47.0	0.50				ng/L						FAIL-OVER	PASS	E


 Analyst Reviewed By _____

 Date _____


 Peer Reviewed By _____

 Date _____

Failing Data Report - 7J16019

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1710359-02	Hg-CVAFS-W-1631	47.0	0.50				ng/L						FAIL-OVER	PASS	E
F710345-MS1	Hg-CVAFS-W-1631	21.94	0.50		9.73	20.240	ng/L	60.3	71.00	125.00			PASS-OVER	FAIL-AS	Re-Analyzed
F710345-MSD1	Hg-CVAFS-W-1631	22.33	0.50	21.94	9.73	20.240	ng/L	62.3	71.00	125.00	1.78	24.00	PASS-OVER	FAIL-ASD (Rec.)	Re-Analyzed

WRONG
SPC. DMW
10-16-17

Dan Mattem 10/16/17
Analyst Reviewed By Date

Peer Reviewed By Date

DMW
10-16-17

PREPARATION BENCH SHEET

F710345

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710345-BLK1	Blank	100	101					
F710345-BLK2	Blank	100	101					
F710345-BLK3	Blank	100	101					
F710345-BLK4	Blank	100	102					
F710345-BLK5	Blank	10	20					
F710345-BS1	LCS	50	50.5	1705054	100			
F710345-BSD1	LCS Dup	50	50.5	1705054	100			
F710345-DUP1	Duplicate [1710324-01]	100	101					
F710345-MS1	Matrix Spike [1710324-01] ¹⁷¹⁰³⁵⁰⁻⁰¹	49.50495	50	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710345-MS2	Matrix Spike [1710354-01] - ^{DMV}	49.50495	50	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710345-MS3	Matrix Spike [1710354-03] - ¹⁰⁻¹⁶⁻¹⁷	49.50495	50	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710345-MSD1	Matrix Spike Dup [1710324-01] ¹⁷¹⁰³⁵⁰⁻⁰¹	49.50495	50	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710345-MSD2	Matrix Spike Dup [1710354-01]	49.50495	50	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F710345-MSD3	Matrix Spike Dup [1710354-03]	49.50495	50	1704422	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704422 -	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703182 -	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705054 -	Nist 1641D 200X	21-Aug-18 00:00	1705610 -	THg Washstation (0.5% BrCl)	
			1705611 -	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705961 -	3% SnCl2 THg reductant	25-Mar-18 00:00

PREPARATION BENCH SHEET

F710345

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710276-01	1728233-01	100	101	-	-	-		
1710276-02	1728233-02	100	102	-	-	-		
1710276-03	1728233-03	100	101	-	-	-		
1710324-01	17J0116-01	100	101	-	-	-	scan all data for Level IV report	
1710328-11RE1	PL2-214B-170920 Total Metals 9224065	100	101	-	-	-	Re-extract added 10/12/2017 by DM2	
1710328-12RE1	PL2-214B-170920 Dissolved Metals 9224066	100	101	-	-	-	Re-extract added 10/12/2017 by DM2	
1710350-01	Lagoons	100	101	-	-	-		
1710350-02	Lagoons Blank	100	101	-	-	-		
1710350-03	Clarifiers	100	101	-	-	-		
1710350-04	Clarifiers Blank	100	101	-	-	-		
1710350-05	A-149	10	20	-	-	-		
1710350-06	A-149 Blank	100	101	-	-	-		
1710354-01	Field Blank	100	101	-	-	-	client specific reporting limits	
1710354-02	YRWWTP Influent	100	101	-	-	-	client specific reporting limits	
1710354-03	YRWWTP Effluent	100	101	-	-	-	client specific reporting limits	
1710359-01	40199.1	100	101	-	-	-		
1710359-02	40199.3	100	101	-	-	-		
1710359-02RE1	40199.3	100	101	-	-	-	Added 10/16/2017 by DM2	Added 10/16/2017 by DM2
1710359-03	40200.1	100	101	-	-	-		

Due Date: 10/16/2017

PREPARATION BENCH SHEET

F710345

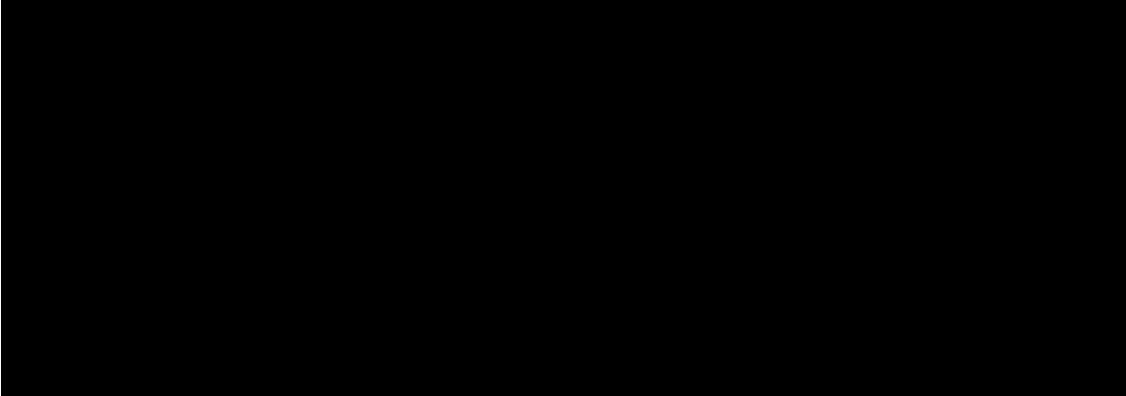
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/13/2017

1710359-03RE1	40200.1	100	101	-	-	-	Added 10/16/2017 by DM2	Added 10/16/2017 by DM2
1710359-04	40200.3	100	101	-	-	-		



PREPARATION BENCH SHEET

F710345

Eurofins Frontier Global Sciences, Inc.

2600-2
BC 10/13/17

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710345-BLK1	Blank	100	101					IX
F710345-BLK2	Blank	100	101					IX
F710345-BLK3	Blank	100	101					IX
F710345-BLK4	Blank	100	101 102					IX
F710345-BS1	LCS	100	101					IX
F710345-BSD1	LCS Dup	100	101					IX
F710345-DUP1	Duplicate 171034-01	100	101					IX
F710345-MS1	Matrix Spike 170350-01	100	101	1704422	100			IX
F710345-MS2	Matrix Spike 1710354-01	100	101	1704422	100			IX
F710345-MSD1	Matrix Spike Dup 1710350-01	100	101	1704422	100			IX
F710345-MSD2	Matrix Spike Dup 1710354-01	100	101	1704422	100			IX

Standard ID(s): Description:

Expiration:

BLK 5

10 20

10X

1705961
1705610
1705611
1703182

MS3 1710354-03 100 1704422 IX

MSD3 1710354-03 100 1704422 IX

IX = 50µL
~~50X~~
10X = 5mL

Due Date: 10/16/2017

PREPARATION BENCH SHEET

F710345

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710276-01	1728233-01	100	101	-	-	-		IX
1710276-02	1728233-02	100	101 102	-	-	-		10X
1710276-03	1728233-03	100	101	-	-	-		IX
1710324-01	17J0116-01	100	101	-	-	-	scan all data for Level IV report	IX
1710328-11RE1	PL2-214B-170920 Total Metals 9224065	100	101	-	-	-	Re-extract added 10/12/2017 by DM2	IX
1710328-12RE1	PL2-214B-170920 Dissolved Metals 9224066	100	101	-	-	-	Re-extract added 10/12/2017 by DM2	IX
1710350-01	Lagoons	100	101	-	-	-		IX
1710350-02	Lagoons Blank	100	101	-	-	-		IX
1710350-03	Clarifiers	100	101	-	-	-		IX
1710350-04	Clarifiers Blank	100	101	-	-	-		IX
1710350-05	A-149	100 10	101 20	-	-	-		IX 10X
1710350-06	A-149 Blank	100	101	-	-	-		IX
1710354-01	Field Blank	100	101	-	-	-	client specific reporting limits	IX
1710354-02	YRWWTP Influent	100	101	-	-	-	client specific reporting limits	IX 10X
1710354-03	YRWWTP Effluent	100	101	-	-	-	client specific reporting limits	IX
1710359-01	40199.1	100	101	-	-	-		IX
1710359-02	40199.3	100	101	-	-	-		IX → 10X
1710359-03	40200.1	100	101	-	-	-		IX → IX
1710359-04	40200.3	100	101	-	-	-		IX

030206
030201
010602
020201

Due Date: 10/16/2017

PREPARATION BENCH SHEET

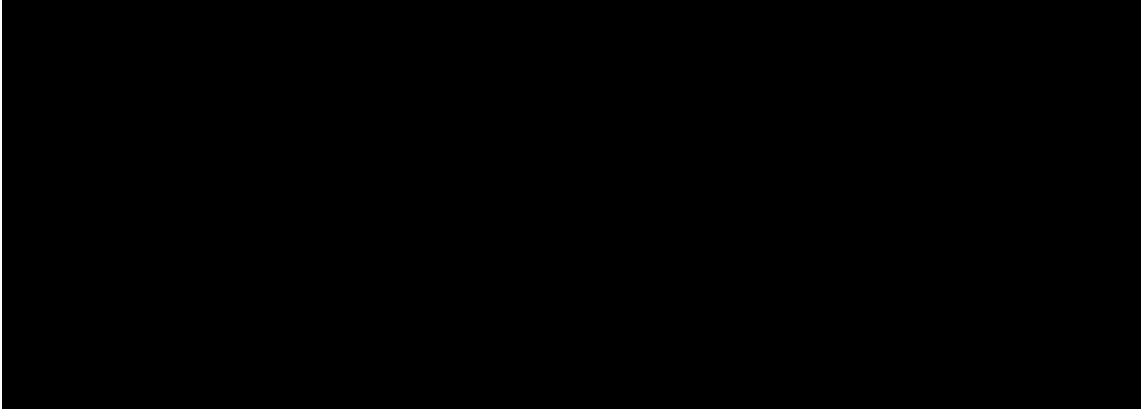
F710345

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/13/2017



Due Date: 10/16/2017

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 10/10/17 Time Completed: 19:00

Work Orders: 1710328
1710324, 1710329, 1710276

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
 Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1705580

Pipette SN: 207631

Cal. Date: 10/9/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710328-24A	250	2.50	Y			
1710324-01A	250	2.50	Y			
1710329-01A	300	3.00	Y			
1710329-02A	300	3.00	Y			
1710329-03A	300	3.00	Y			
1710276-01A	600	6.00	Y			
1710276-02A	600	6.00+6.00	Y			
1710276-03A	600	6.00	Y			
<div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border: 1px solid black; transform: rotate(45deg); opacity: 0.5;"></div> <p style="font-size: 2em; font-weight: bold; text-align: center;">LM 10/10/17</p>						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
10/11/17 DA

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 10/11/17 Time Completed: 18:50

Work Orders: 1710327
1710328

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1705580
Pipette SN: J07631
Cal. Date: 10/9/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710327-22A	250	2.50	Y			
1710327-23A	250	2.50	Y			
1710327-24A	250	2.50	Y			
1710328-01A	250	2.50	Y			
1710328-02A	250	2.50	Y			
1710328-03A	250	2.50	Y			
1710328-04A	250	2.50	Y			
1710328-05A	250	2.50	Y			
1710328-06A	250	2.50	Y			
1710328-07A	250	2.50	Y			
1710328-08A	250	2.50	Y			
1710328-09A	250	2.50	Y			
1710328-10A	250	2.50	Y			
1710328-11A	250	2.50	Y			
1710328-12A	250	2.50	Y			
1710328-13A	250	2.50	Y			
1710328-14A	250	2.50	Y			
1710328-15A	250	2.50	Y			
1710328-16A	250	2.50	Y			
1710328-17A	250	2.50	Y			
1710328-18A	250	2.50	Y			
1710328-19A	250	2.50	Y			
1710328-20A	250	2.50	Y			
1710328-21A	250	2.50	Y			
1710328-22A	250	2.50	Y			
1710328-23A	250	2.50	Y			

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: pm Date: 10/11/17 Time Completed: 1550

Work Orders: 1710277
1710350 1710351

Additional preservation and/or verification (as needed)

Technician: pm Date: 10/12/17 Time Completed: 1010

BrCl LIMS ID: 1705580

Pipette SN: 507631

Technician: _____ Date: _____ Time Completed: _____

Cal. Date: 10/18/17 10/11/17
on 10/11/17

Additional preservation (as needed)

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710277-01A	300	3.00	Y			
1710277-02A	300	3.00	Y			
1710277-03A	300	3.00	Y			
1710277-04A	300	3.00	Y			
1710277-05A	300	3.00	Y			
1710277-06A	300	3.00	Y			
1710277-07A	300	3.00	Y			
1710277-09A	300	3.00	Y			
1710277-10A	300	3.00	Y			
1710277-11A	300	3.00	Y			
1710277-13A	300	3.00	Y			
1710277-14A	300	3.00	Y	N	3.00	Y
1710277-15A	300	3.00	Y	N	3.00	Y
1710277-16A	300	3.00	Y	N	3.00	Y
1710277-17A	300	3.00	Y	N	3.00	Y
1710277-19A	300	3.00	Y			
1710277-20A	300	3.00	Y	N	3.00	Y
1710350-01A	300	3.00	Y			
1710350-02A	300	3.00	Y			
1710350-03A	300	3.00	Y			
1710350-04A	300	3.00	Y			
1710350-05B	10	10	Y			
1710350-06A	300	3.00	Y			
1710351-01A	150	1.50	Y			
1710351-02A	150	1.50	Y			
1710351-03A	300	3.00	Y			

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: 1710277 will have composites done
for samples 1-4, 7-11, and 15-16. - LM 10/11/17
15-17, and 19-17 LM 10/11/17
02-05, 08-11, and 14-17 LM 10/11/17

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: BW Date: 10/11/17 Time Completed: 1615

Work Orders: 1710351 1710353
1710359 1710356, 1710354

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1705580

Pipette SN: 1011844-507631

Cal. Date: 10/11/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710351-04A	300	3.00	Y			
1710351-05A	150	3.00 1.50	Y			
1710351-06A	150	1.50	Y			
1710351-07A	300	3.00	Y			
1710351-08A	300	3.00	Y			
1710351-09A	300	3.00	Y			
1710351-10A	300	3.00	Y			
1710359-01A	300	3.00	Y			
1710359-02A	300	3.00	Y			
1710359-03A	300	3.00	Y			
1710359-04A	300	3.00	Y			
1710359-05A	300	3.00	Y			
1710359-06A	300	3.00	Y			
1710359-07A	300	3.00	Y			
1710359-08A	300	3.00	Y			
1710359-09A	300	3.00	Y			
1710359-10A	300	3.00	Y			
1710359-11A	300	3.00	Y			
1710359-12A	300	3.00	Y			
1710359-13A	300	3.00	Y			
1710359-14A	300	3.00	Y			
1710359-15A	300	3.00	Y			
1710359-16A	300	3.00	Y			
1710359-17A	300	3.00	Y			
1710359-18A	300	3.00	Y			
1710359-19A	300	3.00	Y			
1710359-20A	300	3.00	Y			
1710359-21A	300	3.00	Y			
1710359-22A	300	3.00	Y			
1710359-23A	300	3.00	Y			
1710359-24A	300	3.00	Y			
1710359-25A	300	3.00	Y			
1710359-26A	300	3.00	Y			
1710359-27A	300	3.00	Y			
1710359-28A	300	3.00	Y			
1710359-29A	300	3.00	Y			
1710359-30A	300	3.00	Y			
1710359-31A	300	3.00	Y			
1710359-32A	300	3.00	Y			
1710359-33A	300	3.00	Y			
1710359-34A	300	3.00	Y			
1710359-35A	300	3.00	Y			
1710359-36A	300	3.00	Y			
1710359-37A	300	3.00	Y			
1710359-38A	300	3.00	Y			
1710359-39A	300	3.00	Y			
1710359-40A	300	3.00	Y			
1710359-41A	300	3.00	Y			
1710359-42A	300	3.00	Y			
1710359-43A	300	3.00	Y			
1710359-44A	300	3.00	Y			
1710359-45A	300	3.00	Y			
1710359-46A	300	3.00	Y			
1710359-47A	300	3.00	Y			
1710359-48A	300	3.00	Y			
1710359-49A	300	3.00	Y			
1710359-50A	300	3.00	Y			
1710359-51A	300	3.00	Y			
1710359-52A	300	3.00	Y			
1710359-53A	300	3.00	Y			
1710359-54A	300	3.00	Y			
1710359-55A	300	3.00	Y			
1710359-56A	300	3.00	Y			
1710359-57A	300	3.00	Y			
1710359-58A	300	3.00	Y			
1710359-59A	300	3.00	Y			
1710359-60A	300	3.00	Y			
1710359-61A	300	3.00	Y			
1710359-62A	300	3.00	Y			
1710359-63A	300	3.00	Y			
1710359-64A	300	3.00	Y			
1710359-65A	300	3.00	Y			
1710359-66A	300	3.00	Y			
1710359-67A	300	3.00	Y			
1710359-68A	300	3.00	Y			
1710359-69A	300	3.00	Y			
1710359-70A	300	3.00	Y			
1710359-71A	300	3.00	Y			
1710359-72A	300	3.00	Y			
1710359-73A	300	3.00	Y			
1710359-74A	300	3.00	Y			
1710359-75A	300	3.00	Y			
1710359-76A	300	3.00	Y			
1710359-77A	300	3.00	Y			
1710359-78A	300	3.00	Y			
1710359-79A	300	3.00	Y			
1710359-80A	300	3.00	Y			
1710359-81A	300	3.00	Y			
1710359-82A	300	3.00	Y			
1710359-83A	300	3.00	Y			
1710359-84A	300	3.00	Y			
1710359-85A	300	3.00	Y			
1710359-86A	300	3.00	Y			
1710359-87A	300	3.00	Y			
1710359-88A	300	3.00	Y			
1710359-89A	300	3.00	Y			
1710359-90A	300	3.00	Y			
1710359-91A	300	3.00	Y			
1710359-92A	300	3.00	Y			
1710359-93A	300	3.00	Y			
1710359-94A	300	3.00	Y			
1710359-95A	300	3.00	Y			
1710359-96A	300	3.00	Y			
1710359-97A	300	3.00	Y			
1710359-98A	300	3.00	Y			
1710359-99A	300	3.00	Y			
1710359-100A	300	3.00	Y			

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

ANALYSIS SEQUENCE

7J16020

QUALITY ASSURANCE
PEER-REVIEWED

Instrument: Hg2600-2

INITIALS: DMW 10.16.17
Analyzed: 10/13/2017

Calibration ID: UNASSIGNED

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J16020-IBL1	QC	1			
7J16020-IBL2	QC	2			
7J16020-IBL3	QC	3			
7J16020-CAL1	QC	4	1704505		
7J16020-CAL2	QC	5	1704506		
7J16020-CAL3	QC	6	1704507		
7J16020-CAL4	QC	7	1704508		
7J16020-CAL5	QC	8	1704509		
7J16020-ICV1	QC	9	1705628		
F710324-BLK1	QC	10			
F710324-BLK2	QC	11			
F710324-BS1	QC	12			
F710324-BSD1	QC	13			
1709566-14RE1	Hg-CVAFS-S-7474	14			From F710271 by BC on 11-Oct-17
1709566-15RE1	Hg-CVAFS-S-7474	15			From F710271 by BC on 11-Oct-17
1709567-01RE2	Hg-CVAFS-S-7474	16			From F710271 by BC on 11-Oct-17
1709567-02RE1	Hg-CVAFS-S-7474	17			From F710271 by BC on 11-Oct-17
1709567-03RE1	Hg-CVAFS-S-7474	18			From F710271 by BC on 11-Oct-17
1709567-04RE1	Hg-CVAFS-S-7474	19			From F710271 by BC on 11-Oct-17
7J16020-CCV1	QC	20	1705628		
7J16020-CCB1	QC	21			
1709567-05RE1	Hg-CVAFS-S-7474	22			From F710271 by BC on 11-Oct-17
1709567-06RE2	Hg-CVAFS-S-7474	23			From F710271 by BC on 11-Oct-17
1709567-07RE1	Hg-CVAFS-S-7474	24			From F710271 by BC on 11-Oct-17
1709567-08RE2	Hg-CVAFS-S-7474	25			From F710271 by BC on 11-Oct-17
1709567-09RE2	Hg-CVAFS-S-7474	26			From F710271 by BC on 11-Oct-17
1709567-10RE2	Hg-CVAFS-S-7474	27			From F710271 by BC on 11-Oct-17
1709567-11RE1	Hg-CVAFS-S-7474	28			From F710271 by BC on 11-Oct-17
1709567-12RE1	Hg-CVAFS-S-7474	29			From F710271 by BC on 11-Oct-17
1709567-13RE1	Hg-CVAFS-S-7474	30			From F710271 by BC on 11-Oct-17
1709567-14RE1	Hg-CVAFS-S-7474	31			From F710271 by BC on 11-Oct-17
7J16020-CCV2	QC	32	1705628		
7J16020-CCB2	QC	33			
1709567-15RE1	Hg-CVAFS-S-7474	34			From F710271 by BC on 11-Oct-17
1709568-01RE2	Hg-CVAFS-S-7474	35			From F710271 by BC on 11-Oct-17

Due Date: 10/19/2017

96 of 167

Page 1 of 2

ANALYSIS SEQUENCE

7J16020

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709568-02RE1	Hg-CVAFS-S-7474	36			From F710271 by BC on 11-Oct-17
1709568-03RE1	Hg-CVAFS-S-7474	37			From F710271 by BC on 11-Oct-17
F710324-MS1	QC	38			
F710324-MSD1	QC	39			
F710324-MS2	QC	40			
F710324-MSD2	QC	41			
7J16020-CCV3	QC	42	1705628		
7J16020-CCB3	QC	43			

Be Cing 10/16/17
Samples Loaded By Date

Don M. Green 10/16/17
Data Processed By Date

London
10/13/17

PREPARATION BENCH SHEET

F710324

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710324-BLK1	Blank	0.5	200					
F710324-BLK2	Blank	0.5	200					
F710324-BS1	LCS	0.5	200	1705554	40			
F710324-BSD1	LCS Dup	0.5	200	1705554	40			
F710324-MS1	Matrix Spike [1709567-02RE1]	0.5473	200	1705286	50			
F710324-MS2	Matrix Spike [1709567-09RE2]	0.5781	200	1705286	50			
F710324-MSD1	Matrix Spike Dup [1709567-02RE1]	0.542	200	1705286	50			
F710324-MSD2	Matrix Spike Dup [1709567-09RE2]	0.5789	200	1705286	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705286	THg 10,000ng/mL Primary Spiking Standard	30-Nov-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705679	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1705723	Omnitrace Hydrochloric Acid	22-Sep-20 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00
			1706063	7474 Potassium Bromate/Bromide Reagent	19-Oct-17 00:00

PREPARATION BENCH SHEET

F710324

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709566-14RE1-	MM-T2-C5-A-17_SED_036-038CM	0.5632 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709566-15RE1-	MM-T2-C5-A-17_SED_038-040CM	0.5744 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-01RE2_	MM-T2-C5-A-17_SED_000-001CM	0.5668 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-02RE1-	MM-T2-C5-A-17_SED_001-002CM	0.5692 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-03RE1-	MM-T2-C5-A-17_SED_002-003CM	0.5327 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-04RE1-	MM-T2-C5-A-17_SED_003-004CM	0.5858 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-05RE1-	MM-T2-C5-A-17_SED_004-005CM	0.5308 ~	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-06RE2_	MM-T2-C5-A-17_SED_005-006CM	0.5724 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-07RE1-	MM-T2-C5-A-17_SED_006-007CM	0.5688 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-08RE2_	MM-T2-C5-A-17_SED_007-008CM	0.5316 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-09RE2-	MM-T2-C5-A-17_SED_008-009CM	0.5445 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-10RE2-	MM-T2-C5-A-17_SED_009-010CM	0.5347 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-11RE1_	MM-T2-C5-A-17_SED_010-011CM	0.5795 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-12RE1-	MM-T2-C5-A-17_SED_011-012CM	0.5453 ~	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-13RE1,	MM-T2-C5-A-17_SED_012-013CM	0.5813 ~	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-14RE1-	MM-T2-C5-A-17_SED_013-014CM	0.5479 ~	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709567-15RE1_	MM-T2-C5-A-17_SED_014-015CM	0.5775 ~	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709568-01RE2_	MM-T2-C4-B-17_SED_040-045CM	0.5549 ~	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
1709568-02RE1-	MM-T2-C4-B-17_SED_045-050CM	0.5785 ~	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17

Due Date: 10/19/2017

PREPARATION BENCH SHEET

F710324

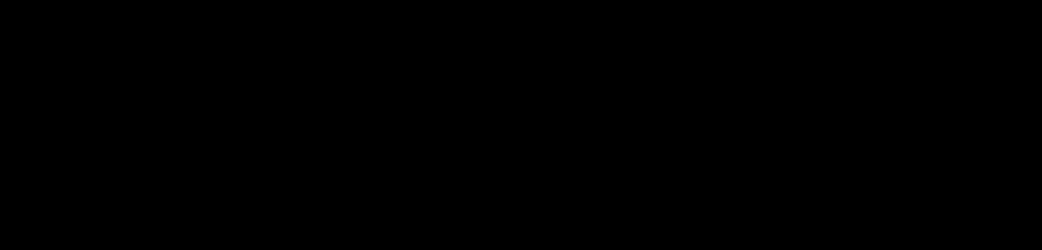
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

1709568-03RE1 -	MM-T2-C4-B-17_SED_050-055CM	0.561 -	200	-	-	-	From F710271 by BC on 11-Oct-17	From F710271 by BC on 11-Oct-17
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PREPARATION BENCH SHEET

2600-2
 BL 10/13/17

F710324

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710324-BLK1	Blank	0.5	200					10X
F710324-BLK2	Blank	0.5	200					10X
F710324-BS1	LCS	0.5	200	1705554	40			10X
F710324-BSD1	LCS Dup	0.5	200	1705554	40			10X
F710324-MS1	Matrix Spike [1709567-02RE1]	0.5473	200	1705286	50			400X
F710324-MS2	Matrix Spike [1709567-09RE2]	0.5781	200	1705286	50			400X
F710324-MSD1	Matrix Spike Dup [1709567-02RE1]	0.542	200	1705286	50			400X
F710324-MSD2	Matrix Spike Dup [1709567-09RE2]	0.5789	200	1705286	50			400X

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
1705286	THg 10,000ng/mL Primary Spiking Standard	30-Nov-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705679	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1705723	Omnitrace Hydrochloric Acid	22-Sep-20 00:00
			1706063	7474 Potassium Bromate/Bromide Reagent	19-Oct-17 00:00

10X = 5ml
 400X = 125ml
 100X = ~~125~~ 500ml

16056'
 1705610
 1705611
 1705961
 1703182

PREPARATION BENCH SHEET

2600-2
BC 10/13/17

F710324

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709566-14RE1	MM-T2-C5-A-17_SED_036-038CM	0.5632	200	-	-	-	From F710271 by BC on 11-Oct-17 10X	From F710271 by BC on 11-Oct-17
1709566-15RE1	MM-T2-C5-A-17_SED_038-040CM	0.5744	200	-	-	-	From F710271 by BC on 11-Oct-17 10X	From F710271 by BC on 11-Oct-17
1709567-01RE2	MM-T2-C5-A-17_SED_000-001CM	0.5668	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-02RE1	MM-T2-C5-A-17_SED_001-002CM	0.5692	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-03RE1	MM-T2-C5-A-17_SED_002-003CM	0.5327	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-04RE1	MM-T2-C5-A-17_SED_003-004CM	0.5858	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-05RE1	MM-T2-C5-A-17_SED_004-005CM	0.5308	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-06RE2	MM-T2-C5-A-17_SED_005-006CM	0.5724	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-07RE1	MM-T2-C5-A-17_SED_006-007CM	0.5688	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-08RE2	MM-T2-C5-A-17_SED_007-008CM	0.5316	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-09RE2	MM-T2-C5-A-17_SED_008-009CM	0.5445	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-10RE2	MM-T2-C5-A-17_SED_009-010CM	0.5347	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-11RE1	MM-T2-C5-A-17_SED_010-011CM	0.5795	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-12RE1	MM-T2-C5-A-17_SED_011-012CM	0.5453	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-13RE1	MM-T2-C5-A-17_SED_012-013CM	0.5813	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-14RE1	MM-T2-C5-A-17_SED_013-014CM	0.5479	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709567-15RE1	MM-T2-C5-A-17_SED_014-015CM	0.5775	200	-	-	-	From F710271 by BC on 11-Oct-17 100X	From F710271 by BC on 11-Oct-17
1709568-01RE2	MM-T2-C4-B-17_SED_040-045CM	0.5549	200	-	-	-	From F710271 by BC on 11-Oct-17 10X	From F710271 by BC on 11-Oct-17
1709568-02RE1	MM-T2-C4-B-17_SED_045-050CM	0.5785	200	-	-	-	From F710271 by BC on 11-Oct-17 10X	From F710271 by BC on 11-Oct-17

Due Date: 10/19/2017

PREPARATION BENCH SHEET

2600-2
BC 10/13/17

F710324

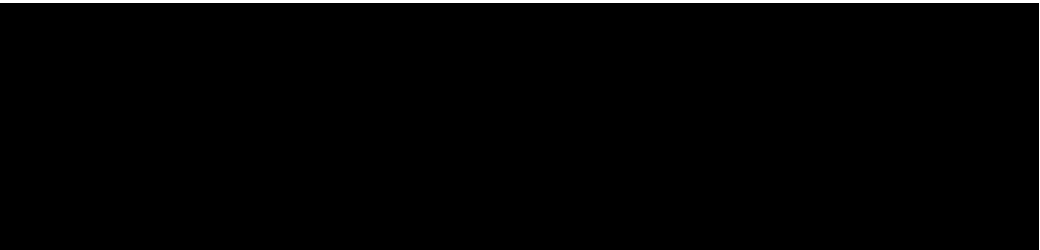
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EPA 7474

Prepared: 10/12/2017

1709568-03RE1	MM-T2-C4-B-17_SED_050-055CM	0.561	200	-	-	-	From F710271 by BC on 11-Oct-17 10X	From F710271 by BC on 11-Oct-17
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Technician: Duyen Batch#: F710324 Date: 10/12/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA 7474
 Balance#: 19 Calibrated? Yes No Therm.#: N/A Vial Type: Glass Teflon
 *Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C Calibrated? Yes No
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 *Time in can't begin before target temperature is reached

Final vol.: 25 mL (LIMS ID: R0H20) Spike vol.: 40uL ^{B5(B50)} (LIMS ID: 1705554)
 Spike Witness: Cme 10/12/17 (initial and date)

HCl LIMS ID: 1705723 Pipette SN#: 0007852 Calibration Date: 10-09-17
 HNO₃ LIMS ID: 1705679 Pipette SN#: 0007693 Calibration Date: 10-9-17
 70/30 LIMS ID: N/A Dispenser #: 09N45351 Calibrated? Yes No
 Other Acid LIMS ID: 1706063 Dispenser #: 12407691 Yes No
 Glass Vial # J264713-302 Boiling Chip lot # 1704424 *Hotblock Position: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial # <u>10/14/17</u>	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F710324 Blk1	0.5257	238	1709567-13R21	0.5813	
2	F710324 Blk2	0.5086	249	1709567-14R21	0.5479	
3	F710324 B51	0.5051	2510	1709567-15R21	0.5775	
4	F710324 B501	0.5627	2611	1709568-01R22	0.5549	Comments
5	1709566-14R21	0.5632	2712	1709568-02R21	0.5785	F710324
6	1709566-15R21	0.5744	2813	1709568-03R21	0.5610	Source
7	1709567-01R22	0.5668	29			1709567-02
8	1709567-02R21	0.5692	30			MS1 MS01
9	F710324-MS1	0.5473	31			F710324
10	F710324-MS01	0.5420	32			MS2 MS02
11	1709567-03R21	0.5327	33			1709567-09
12	1709567-04R21	0.5858	34			F710324
13	1709567-05R21	0.5308	35			ALL spike
14	1709567-06R22	0.5724	36			MS1 MS01 MS2 MS02
15	1709567-07R21	0.5688	37			= 10,000 µg/L
16	1709567-08R22	0.5316	38			= 500 µg/L
17	1709567-09R22	0.5445	39			1705286
18	F710324-MS2	0.5781	40			10-12-17 us
19	F710324-MS02	0.5789	41			
20	1709567-10R22	0.5347	42			
21	1709567-11R21	0.5795	43			
22	1709567-12R21	0.5453	44			

ANALYSIS SEQUENCE

7J16021

QUALITY ASSURANCE
PEER-REVIEWEDINITIALS: DMW 10-10-17
Analyzed: 10/13/2017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J16021-IBL1	QC	1			
7J16021-IBL2	QC	2			
7J16021-IBL3	QC	3			
7J16021-CAL1	QC	4	1704505		
7J16021-CAL2	QC	5	1704506		
7J16021-CAL3	QC	6	1704507		
7J16021-CAL4	QC	7	1704508		
7J16021-CAL5	QC	8	1704509		
7J16021-ICV1	QC	9	1705628		
7J16021-CCV1	QC	10	1705628		
7J16021-CCB1	QC	11			
7J16021-CCV2	QC	12	1705628		
7J16021-CCB2	QC	13			
7J16021-CCV3	QC	14	1705628		
7J16021-CCB3	QC	15			
7J16021-CCV4	QC	16	1705628		
7J16021-CCB4	QC	17			
7J16021-CCV5	QC	18	1705628		
7J16021-CCB5	QC	19			
7J16021-CCV6	QC	20	1705628		
7J16021-CCB6	QC	21			
F710214-BLK1	QC	22			
F710214-BLK2	QC	23			
F710214-BLK3	QC	24			
F710214-BLK4	QC	25			
F710214-BLK5	QC	26			
F710214-BS1	QC	27			
7J16021-CCV7	QC	28	1705628		
7J16021-CCB7	QC	29			
F710214-BSD1	QC	30			
F710214-BS2	QC	31			
1709618-01	Hg-CVAFS-T-7030	32			
1709618-02	Hg-CVAFS-T-7030	33			
1709618-03	Hg-CVAFS-T-7030	34			
1709618-04	Hg-CVAFS-T-7030	35			

Due Date: 10/20/2017

106 of 167

Page 1 of 2

ANALYSIS SEQUENCE

7J16021

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709618-05	Hg-CVAFS-T-7030	36			
1709618-06	Hg-CVAFS-T-7030	37			
7J16021-CCV8	QC	38	1705628		
7J16021-CCB8	QC	39			
F710214-DUP1	QC	40			
F710214-MS1	QC	41			
F710214-MSD1	QC	42			
F710214-MS2	QC	43			
F710214-MSD2	QC	44			
1709618-04RE1	Hg-CVAFS-T-7030	45			Added 10/16/2017 by DM2
1709618-05RE1	Hg-CVAFS-T-7030	46			Added 10/16/2017 by DM2
1709619-03	Hg-CVAFS-T-7030	47			
1709619-04	Hg-CVAFS-T-7030	48			
1709619-05	Hg-CVAFS-T-7030	49			
7J16021-CCV9	QC	50	1705628		
7J16021-CCB9	QC	51			

Be Cj 10/16/17
 Samples Loaded By Date

Don M. Moran 10/16/17
 Data Processed By Date

loaded
 10/13/17

PREPARATION BENCH SHEET

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710214-BLK1 -	Blank	0.25	20					
F710214-BLK2 -	Blank	0.25	20					
F710214-BLK3 -	Blank	0.25	20					
F710214-BLK4 -	Blank	0.276 -	20					Pre-homogenization Blanks for 1709617-1709618
F710214-BLK5 -	Blank	0.263 -	20					Pre-homogenization Blanks for 1709617-1709618
F710214-BLK6	Blank	0.5	40					
F710214-BLK7	Blank	0.5	40					
F710214-BLK8	Blank	0.5	40					
F710214-BS1 -	LCS	0.25	20	1704421	20			
F710214-BS2 -	DORM4	0.1268	20	1705412	126.8			
F710214-BSD1 -	LCS Dup	0.25	20	1704421	20			
F710214-DUP1 -	Duplicate [1709618-01] -	0.253 -	20					
F710214-MS1 -	Matrix Spike [1709618-01] -	0.263 -	20	1705554	100			
F710214-MS2 -	Matrix Spike [1709618-02] -	0.262 -	20	1705554	100			
F710214-MSD1 -	Matrix Spike Dup [1709618-01] -	0.26 -	20	1705554	100			
F710214-MSD2 -	Matrix Spike Dup [1709618-02] -	0.279 -	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551 -	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182 -	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610 -	THg Washstation (0.5% BrCl)	
			1705611 -	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705859 -	70/30 Digestion Acid	28-Mar-18 00:00
			1705915 -	5% BrCl	14-Mar-18 00:00
			1705961 -	3% SnCl2 THg reductant	25-Mar-18 00:00

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709618-01 -	OB-01_17MT001_091817_MUM_01_WB	0.275 -	20	QC	-	-	MS/MSD	
1709618-02 -	OB-01_17MT002_091817_MUM_02_WB	0.276 -	20	-	-	-		
1709618-03 -	OB-01_17MT002_091817_MUM_03_WB	0.254 -	20	-	-	-		
1709618-04 -	OB-01_17MT002_091817_MUM_04_WB	0.269 -	20	-	-	-		
1709618-04RE1	OB-01_17MT002_091817_MUM_04_WB	0.269	20	-	-	-	Added 10/16/2017 by DM2	Added 10/16/2017 by DM2
1709618-05 -	OB-01_17MT002_091817_MUM_05_WB	0.257 -	20	-	-	-		
1709618-05RE1	OB-01_17MT002_091817_MUM_05_WB	0.257	20	-	-	-	Added 10/16/2017 by DM2	Added 10/16/2017 by DM2
1709618-06 -	OB-01_17MT002_091817_MUM_06_WB	0.281 -	20	-	-	-		
1709618-07 -	OB-01_17MT002_091817_MUM_07_WB	0.257 -	20	-	-	-		
1709618-08 -	OB-01_17MT002_091817_MUM_08_WB	0.254 -	20	-	-	-		
1709618-08RE1	OB-01_17MT002_091817_MUM_08_WB	0.254	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-09 -	OB-01_17MT001_091917_MUM_09_WB	0.279 -	20	-	-	-		
1709618-10 -	OB-01_17MT001_091917_MUM_10_WB	0.258 -	20	-	-	-		
1709618-10RE1	OB-01_17MT001_091917_MUM_10_WB	0.258	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-11 -	OB-01_17MT001_091917_MUM_11_WB	0.251 -	20	-	-	-		
1709618-11RE1	OB-01_17MT001_091917_MUM_11_WB	0.251	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-12 -	OB-01_17MT001_091917_MUM_12_WB	0.274 -	20	-	-	-		
1709618-13 -	OB-01_17MT001_091917_MUM_13_WB	0.255 -	20	-	-	-		
1709618-14 -	OB-01_17MT002_091917_MUM_14_WB	0.272 -	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710214

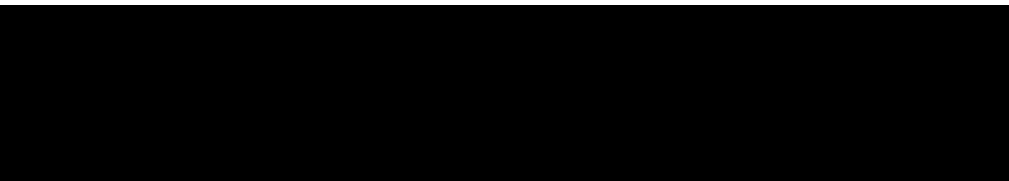
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709618-14RE1	OB-01_17MT002_091917_MUM_14_WB	0.272	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709618-15_	OB-01_17MT002_091917_MUM_15_WB	0.259_	20	-	-	-		
1709618-15RE1	OB-01_17MT002_091917_MUM_15_WB	0.259	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709619-01 -	OB-05_17SN001_091517_MUM_01_WB	0.278 -	20	-	-	-		
1709619-01RE1	OB-05_17SN001_091517_MUM_01_WB	0.278	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709619-02 _	OB-05_17SN001_091517_MUM_02_WB	0.255 _	20	-	-	-		
1709619-02RE1	OB-05_17SN001_091517_MUM_02_WB	0.255	20	-	-	-	Added 10/16/2017 by BC	Added 10/16/2017 by BC
1709619-03 ✓	OB-05_17SN001_091517_MUM_03_WB	0.282 _	20	-	-	-		
1709619-04 _	OB-05_17SN001_091517_MUM_04_WB	0.265_	20	-	-	-		
1709619-05 ~	OB-05_17SN001_091517_MUM_05_WB	0.275_	20	-	-	-		



PREPARATION BENCH SHEET

2600-2
Bc 10/13/17

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710214-BLK1	Blank	0.25	20					
F710214-BLK2	Blank	0.25	20					20X
F710214-BLK3	Blank	0.25	20					20X
F710214-BLK4	Blank	0.276	20					20X
F710214-BLK5	Blank	0.263	20					Pre-homogenization Blanks for 1709617-1709618 20X
F710214-BS1	LCS	0.25	20	1704421	20			20X
F710214-BS2	DORM4	0.1268	20	1705412	126.8			400X
F710214-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710214-DUP1	Duplicate [1709618-01]	0.253	20					50X
F710214-MS1	Matrix Spike [1709618-01]	0.263	20	1705554	100			400X
F710214-MS2	Matrix Spike [1709618-02]	0.262	20	1705554	100			400X
F710214-MSD1	Matrix Spike Dup [1709618-01]	0.26	20	1705554	100			400X
F710214-MSD2	Matrix Spike Dup [1709618-02]	0.279	20	1705554	100			400X

Standard ID(s): Description:
 1704421 THg 100ng/mL Primary Spiking Standard
 1705412 DORM-4
 1705554 THg 1,000ng/mL Secondary Spiking Standard

Expiration:
 21-Oct-17 00:00
 06-Jan-20 00:00
 18-Mar-18 00:00

Reagent ID(s): Description:
 1702551 Boiling Chips for AFS prep
 1705859 70/30 Digestion Acid
 1705915 5% BrCl

Expiration:
 31-Dec-17 00:00
 28-Mar-18 00:00
 14-Mar-18 00:00

20X = 2.5mL
 400X = 125µL
 50X = 1 mL

~~1605611~~ 1705610
~~1605610~~ 1705611
~~1605961~~ 1705961
 1703182

Due Date: 10/20/2017

2600-2
 RL 10/13/17

PREPARATION BENCH SHEET

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709618-01	OB-01_17MT001_091817_MUM_01_WB	0.275	20	QC	-	-	MS/MSD 50X	
1709618-02	OB-01_17MT002_091817_MUM_02_WB	0.276	20	-	-	-	50X	
1709618-03	OB-01_17MT002_091817_MUM_03_WB	0.254	20	-	-	-	50X	
1709618-04	OB-01_17MT002_091817_MUM_04_WB	0.269	20	-	-	-	50X → 100X	
1709618-05	OB-01_17MT002_091817_MUM_05_WB	0.257	20	-	-	-	50X → 50X	
1709618-06	OB-01_17MT002_091817_MUM_06_WB	0.281	20	-	-	-	50X	
1709618-07	OB-01_17MT002_091817_MUM_07_WB	0.257	20	-	-	-		
1709618-08	OB-01_17MT002_091817_MUM_08_WB	0.254	20	-	-	-		
1709618-09	OB-01_17MT001_091917_MUM_09_WB	0.279	20	-	-	-		
1709618-10	OB-01_17MT001_091917_MUM_10_WB	0.258	20	-	-	-		
1709618-11	OB-01_17MT001_091917_MUM_11_WB	0.251	20	-	-	-		
1709618-12	OB-01_17MT001_091917_MUM_12_WB	0.274	20	-	-	-		
1709618-13	OB-01_17MT001_091917_MUM_13_WB	0.255	20	-	-	-		
1709618-14	OB-01_17MT002_091917_MUM_14_WB	0.272	20	-	-	-		
1709618-15	OB-01_17MT002_091917_MUM_15_WB	0.259	20	-	-	-		
1709619-01	OB-05_17SN001_091517_MUM_01_WB	0.278	20	-	-	-		
1709619-02	OB-05_17SN001_091517_MUM_02_WB	0.255	20	-	-	-		
1709619-03	OB-05_17SN001_091517_MUM_03_WB	0.282	20	-	-	-	400X	
1709619-04	OB-05_17SN001_091517_MUM_04_WB	0.265	20	-	-	-	400X	

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-3
BL 10/13/17

F710214

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709619-05	OB-05_17SN001_091517_MUM_05_WB	0.275	20	-	-	-	409x	
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Technician: WTF Batch#: F710214 Date: 10/4/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6,19(DORMY) Calibrated? Yes No Therm.#: 140118012 Calibrated? Yes No

*Time in: 17:00 Actual Temp. (raw): 80.2 °C w/ CF: 79.7 °C

Time out: 19:00 Actual Temp. (raw): Timed °C w/ CF: Timer °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705915) Spike vol.: 100 µL (LIMS ID: 1705554)

Spike Witness: DM 10/4/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: mmbl9 Calibration Date: 16/2/17

HNO₃ LIMS ID: NA Pipette SN#: NA Calibration Date: NA

70/30 LIMS ID: 1705551 Dispenser #: 0262749 Calibrated? Yes No

Other Acid LIMS ID: NA Dispenser #: 15406623

Glass Vial # 00063642 Boiling Chip lot # 1702551 *Hotblock Position: MS

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F710214 - BLK1	0.266	23	1709618 - 12	0.274	BS2 = DORMY CFMS: 1705512
2	F710214 - BLK2	0.266	24	1709618 - 13	0.255	
3	F710214 - BLK3	0.287	25	1709618 - 14	0.272	
4	F710214 - BS1	0.275	26	1709618 - 15	0.259	Comments
5	F710214 - BSD1	0.269	27	1709619 - 01	0.278	DUP1/MS1/MSD1 source: 1709618-01
6	F710214 - BS2	0.1268	28	1709619 - 02	0.255	MS2/MSD2 source: 1709618-02
7	1709618 - 01	0.275	29	1709619 - 03	0.282	
8	F710214 - DUP1	0.253	30	1709619 - 04	0.265	BS1/BSD1 spiked with 20µL of 1709618
9	F710214 - MS1	0.263	31	1709619 - 05	0.275	
10	F710214 - MSD1	0.260	32			BLK4+5 are Pre/Post Blanks for 1709618-617 WTF 10/5/17
11	1709618 - 02	0.276	33			
12	F710214 - MS2	0.262	34			
13	F710214 - MSD2	0.279	35			
14	1709618 - 03	0.254	36			
15	1709618 - 04	0.269	37			
16	1709618 - 05	0.257	38			
17	1709618 - 06	0.281	39			
18	1709618 - 07	0.257	40			
19	1709618 - 08	0.254	41			
20	1709618 - 09	0.279	42			
21	1709618 - 10	0.258	43			
22	1709618 - 11	0.251	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7J16021, 7J16020, 7J16019
Reviewer:	0 <i>DMW</i>	Dataset ID(s):	THG2002-171013-1
Date:	10/16/2017	WO (s) #:	VARIOUS
Batch #(s):	F710345, F710324, F710214		0

Analyst Initials DMW Reviewer Initials DMW

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: *DMW 10-16-17*
~~1710359-02, 1709618-04 HIGH SAMPLES. OFF CURVE. F710345-M61, MSD1 FAILED. SOURCE WAS A BLANK. RE-ANALYZED.~~
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
 (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
 (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7J16021, 7J16020, 7J16019
Reviewer:	0 <i>DM</i>	Dataset ID(s):	THG2002-171013-1
Date:	10/16/2017	WO (s) #:	VARIOUS
Batch #(s):	F710345, F710324, F710214		0

Analyst Initials DM Reviewer Initials DM

- | | | | |
|--|--|--|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input checked="" type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | <i>DM</i> | <i>10-16-17</i> |
| 25. Are re-runs noted with reason? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs | | | |
| 36. Date of analyst IDOC/CDOC: <u>1-11-17, 1-27-17</u> IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: <u>5-20-17</u> Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>4/26/17, 7/28/17</u> LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>4/26/17, 7/28/17</u> LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.



Frontier Global Sciences

THg26002-171017-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 18, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7J18019, 7J18020, 7J18021

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	97.99 units	195.98	89.05 units	178.11	99.7 %Rec
SEQ-CAL2	1	1.00 ng/L	195.16 units	195.16	186.22 units	186.22	104.2 %Rec
SEQ-CAL3	1	5.00 ng/L	910.96 units	182.19	902.02 units	180.40	101.0 %Rec
SEQ-CAL4	1	20.00 ng/L	3552.62 units	177.63	3543.68 units	177.18	99.2 %Rec
SEQ-CAL5	1	40.00 ng/L	6865.94 units	171.65	6857.00 units	171.43	95.9 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 178.67 +/- 5.36 3.0% RSD 184.52

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	8.94 units	±1.62	0.05 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	6	-0.002 ng/L	±0.008
BLK	2	3	1.747 ng/L	±0.575
BLK	3	3	2.840 ng/L	±0.886
BLK	4	2	7.802 ng/L	±3.016
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: p 10/19/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	CAL	SEQ-IBL1	1	10/18/2017 8:48:34	87447-1.RAW	8:48:34 AM	10.80			1.9	0.010	0.010	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	10/18/2017 8:52:43	87448-1.RAW	8:52:43 AM	8.09			-0.8	-0.005	-0.005	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	10/18/2017 8:56:51	87449-1.RAW	8:56:51 AM	7.92			-1.0	-0.006	-0.006	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	10/18/2017 9:01:00	87450-1.RAW	9:01:00 AM	97.99			89.1	0.498	0.498	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	10/18/2017 9:05:08	87451-1.RAW	9:05:08 AM	195.16			186.2	1.042	1.042	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	10/18/2017 9:09:17	87452-1.RAW	9:09:17 AM	910.96			902.0	5.049	5.049	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	10/18/2017 9:13:25	87453-1.RAW	9:13:25 AM	3552.62			3543.7	19.834	19.834	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	10/18/2017 9:17:34	87454-1.RAW	9:17:34 AM	6865.94			6857.0	38.378	38.378	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	10/18/2017 9:21:42	87455-1.RAW	9:21:42 AM	905.88			896.9	5.020	5.020	ng/L	
Hg2600-3	BC	SAM	WS	1	10/18/2017 9:39:08	87456-1.RAW	9:39:08 AM	46.72		x	37.8	0.211	0.000	ng/L	
Hg2600-3	BC	BLK	F710376-BLK1	1	10/18/2017 9:43:17	87457-1.RAW	9:43:17 AM	8.83	1	x	-0.1	-0.001	-0.001	ng/L	
Hg2600-3	BC	BLK	F710376-BLK2	1	10/18/2017 9:47:25	87458-1.RAW	9:47:25 AM	8.79	1	x	-0.1	-0.001	-0.001	ng/L	
Hg2600-3	BC	BLK	F710376-BLK3	1	10/18/2017 9:51:34	87459-1.RAW	9:51:34 AM	10.89	1	x	2.0	0.011	0.011	ng/L	
Hg2600-3	BC	BLK	F710376-BLK4	1	10/18/2017 9:55:42	87460-1.RAW	9:55:42 AM	6.34	1	x	-2.6	-0.015	-0.015	ng/L	
Hg2600-3	BC	BLK	F710376-BLK5	1	10/18/2017 9:59:51	87461-1.RAW	9:59:51 AM	8.60	1	x	-0.3	-0.002	-0.002	ng/L	
Hg2600-3	BC	BLK	F710376-BLK6	1	10/18/2017 10:03:59	87462-1.RAW	10:03:59 AM	8.32	1	x	-0.6	-0.003	-0.003	ng/L	
Hg2600-3	BC	SAM	1710146-01	1	10/18/2017 10:08:08	87463-1.RAW	10:08:08 AM	93.25	1	x	84.3	0.472	0.472	ng/L	
Hg2600-3	BC	SAM	1710146-02	1	10/18/2017 10:12:16	87464-1.RAW	10:12:16 AM	16.05	1	x	7.1	0.040	0.040	ng/L	
Hg2600-3	BC	SAM	1710329-01	1	10/18/2017 10:16:25	87465-1.RAW	10:16:25 AM	332.89	1	x	323.9	1.813	1.813	ng/L	
Hg2600-3	BC	SAM	1710329-02	1	10/18/2017 10:20:33	87466-1.RAW	10:20:33 AM	13.26	1	x	4.3	0.024	0.024	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	10/18/2017 10:24:41	87467-1.RAW	10:24:41 AM	883.51			874.6	4.895	4.895	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	10/18/2017 10:28:50	87468-1.RAW	10:28:50 AM	15.31			6.4	0.036	0.036	ng/L	
Hg2600-3	BC	SAM	F710376-BS1	1	10/18/2017 10:32:58	87469-1.RAW	10:32:58 AM	2742.19	1	x	2733.3	15.298	15.298	ng/L	
Hg2600-3	BC	SAM	F710376-BSD1	1	10/18/2017 10:37:07	87470-1.RAW	10:37:07 AM	2897.31	1	x	2888.4	16.166	16.166	ng/L	
Hg2600-3	BC	SAM	F710376-DUP1	1	10/18/2017 10:41:15	87471-1.RAW	10:41:15 AM	342.88	1	x	333.9	1.869	1.869	ng/L	
Hg2600-3	BC	SAM	F710376-MS1	1	10/18/2017 10:45:24	87472-1.RAW	10:45:24 AM	1204.78	1	x	1195.8	6.693	6.693	ng/L	
Hg2600-3	BC	SAM	F710376-MSD1	1	10/18/2017 10:49:32	87473-1.RAW	10:49:32 AM	1218.64	1	x	1209.7	6.771	6.771	ng/L	
Hg2600-3	BC	SAM	ws	20	10/18/2017 10:53:41	87474-1.RAW	10:53:41 AM	936.17		x	927.2	5.190	103.794	ng/L	
Hg2600-3	BC	SAM	ws	20	10/18/2017 10:57:49	87475-1.RAW	10:57:49 AM	3494.33		x	3485.4	19.508	390.153	ng/L	
Hg2600-3	BC	BLK	F710215-BLK3	20	10/18/2017 11:03:44	87476-2.RAW	11:03:44 AM	30.01	2		21.1	0.118	2.358	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK4	20	10/18/2017 11:07:53	87477-1.RAW	11:07:53 AM	27.90	2		19.0	0.019	0.375	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK5	20	10/18/2017 11:12:01	87478-1.RAW	11:12:01 AM	20.34	2		11.4	-0.024	-0.470	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	10/18/2017 11:16:10	87479-1.RAW	11:16:10 AM	906.16			897.2	5.022	5.022	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	10/18/2017 11:20:18	87480-1.RAW	11:20:18 AM	18.09			9.1	0.051	0.051	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK6	20	10/18/2017 11:24:27	87481-1.RAW	11:24:27 AM	18.25	2		9.3	-0.035	-0.704	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK7	20	10/18/2017 11:28:35	87482-1.RAW	11:28:35 AM	15.07	2		6.1	-0.053	-1.060	ng/L	
Hg2600-3	BC	BLK	F710215-BLK1	20	10/18/2017 11:32:43	87483-1.RAW	11:32:43 AM	23.82	2		14.9	0.083	1.666	ng/L	
Hg2600-3	BC	BLK	F710215-BLK2	20	10/18/2017 11:36:52	87484-1.RAW	11:36:52 AM	19.81	2		10.9	0.061	1.217	ng/L	
Hg2600-3	BC	SAM	F710215-BS1	20	10/18/2017 11:41:00	87485-1.RAW	11:41:00 AM	900.71	2		891.8	4.904	98.078	ng/L	
Hg2600-3	BC	SAM	F710215-BSD1	20	10/18/2017 11:45:09	87486-1.RAW	11:45:09 AM	949.16	2		940.2	5.175	103.501	ng/L	
Hg2600-3	BC	SAM	F710215-BS2	400	10/18/2017 11:49:17	87487-1.RAW	11:49:17 AM	971.90	2		963.0	5.385	2154.121	ng/L	
Hg2600-3	BC	SAM	1709619-06	100	10/18/2017 11:53:26	87488-1.RAW	11:53:26 AM	1926.50	2		1917.6	10.715	1071.505	ng/L	
Hg2600-3	BC	SAM	1709619-07	100	10/18/2017 11:57:34	87489-1.RAW	11:57:34 AM	1633.34	2		1624.4	9.074	907.427	ng/L	
Hg2600-3	BC	SAM	1709619-08	100	10/18/2017 12:01:43	87490-1.RAW	12:01:43 PM	1835.83	2		1826.9	10.208	1020.759	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	10/18/2017 12:05:51	87491-1.RAW	12:05:51 PM	878.64			869.7	4.868	4.868	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	10/18/2017 12:09:59	87492-1.RAW	12:09:59 PM	21.49			12.6	0.070	0.070	ng/L	
Hg2600-3	BC	SAM	1709619-09	100	10/18/2017 12:14:08	87493-1.RAW	12:14:08 PM	1680.62	2		1671.7	9.339	933.891	ng/L	
Hg2600-3	BC	SAM	1709619-10	100	10/18/2017 12:18:16	87494-1.RAW	12:18:16 PM	1737.63	2		1728.7	9.658	965.797	ng/L	
Hg2600-3	BC	SAM	1709619-11	100	10/18/2017 12:22:25	87495-1.RAW	12:22:25 PM	1815.57	2		1806.6	10.094	1009.418	ng/L	
Hg2600-3	BC	SAM	1709619-12	100	10/18/2017 12:26:33	87496-1.RAW	12:26:33 PM	1881.97	2		1873.0	10.466	1046.582	ng/L	
Hg2600-3	BC	SAM	1709619-13	100	10/18/2017 12:30:42	87497-1.RAW	12:30:42 PM	1852.77	2		1843.8	10.302	1030.241	ng/L	
Hg2600-3	BC	SAM	1709619-14	100	10/18/2017 12:34:50	87498-1.RAW	12:34:50 PM	1987.76	2		1978.8	11.058	1105.791	ng/L	
Hg2600-3	BC	SAM	1709619-15	100	10/18/2017 12:38:59	87499-1.RAW	12:38:59 PM	1820.77	2		1811.8	10.123	1012.331	ng/L	
Hg2600-3	BC	SAM	1709619-16	100	10/18/2017 12:43:07	87500-1.RAW	12:43:07 PM	1534.09	2		1525.2	8.519	851.878	ng/L	
Hg2600-3	BC	SAM	1709619-17	100	10/18/2017 12:47:15	87501-1.RAW	12:47:15 PM	1585.61	2		1576.7	8.807	880.711	ng/L	
Hg2600-3	BC	SAM	1709619-18	100	10/18/2017 12:51:24	87502-1.RAW	12:51:24 PM	1692.12	2		1683.2	9.403	940.325	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	10/18/2017 12:55:32	87503-1.RAW	12:55:32 PM	937.83			928.9	5.199	5.199	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber													
Hg2600-3	BC	CAL	SEQ-CCB4	1	10/18/2017 12:59:41	87504-1.RAW	12:59:41 PM	18.47				9.5	0.053	0.053	ng/L	
Hg2600-3	BC	SAM	1709619-19	100	10/18/2017 13:03:49	87505-1.RAW	1:03:49 PM	1754.58	2			1745.6	9.753	975.282	ng/L	
Hg2600-3	BC	SAM	1709619-20	100	10/18/2017 13:07:58	87506-1.RAW	1:07:58 PM	1477.18	2			1468.2	8.200	820.021	ng/L	
Hg2600-3	BC	SAM	1709620-01	100	10/18/2017 13:12:06	87507-1.RAW	1:12:06 PM	1178.13	2			1169.2	6.526	652.647	ng/L	
Hg2600-3	BC	SAM	1709620-02	100	10/18/2017 13:16:15	87508-1.RAW	1:16:15 PM	3271.75	2			3262.8	18.244	1824.440	ng/L	
Hg2600-3	BC	SAM	1709620-03	100	10/18/2017 13:20:23	87509-1.RAW	1:20:23 PM	4188.28	2			4179.3	23.374	2337.414	ng/L	
Hg2600-3	BC	SAM	1709620-04	100	10/18/2017 13:24:31	87510-1.RAW	1:24:31 PM	2545.18	2			2536.2	14.178	1417.780	ng/L	
Hg2600-3	BC	SAM	1709620-07	100	10/18/2017 13:28:40	87511-1.RAW	1:28:40 PM	2954.67	2			2945.7	16.470	1646.972	ng/L	
Hg2600-3	BC	SAM	F710215-DUP1	100	10/18/2017 13:32:48	87512-1.RAW	1:32:48 PM	1789.30	2			1780.4	9.947	994.714	ng/L	
Hg2600-3	BC	SAM	F710215-MS1	400	10/18/2017 13:36:57	87513-1.RAW	1:36:57 PM	2529.76	2			2520.8	14.105	5641.839	ng/L	
Hg2600-3	BC	SAM	F710215-MSD1	400	10/18/2017 13:41:05	87514-1.RAW	1:41:05 PM	2536.27247	2			2527.3	14.141	5656.417	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	10/18/2017 13:45:14	87515-1.RAW	1:45:14 PM	942.94				934.0	5.228	5.228	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	10/18/2017 13:49:22	87516-1.RAW	1:49:22 PM	34.80				25.9	0.145	0.145	ng/L	
Hg2600-3	BC	SAM	F710215-MS2	400	10/18/2017 13:53:30	87517-1.RAW	1:53:30 PM	2539.67	2			2530.7	14.160	5664.025	ng/L	
Hg2600-3	BC	SAM	F710215-MSD2	400	10/18/2017 13:57:39	87518-1.RAW	1:57:39 PM	2706.28	2			2697.3	15.093	6037.038	ng/L	
Hg2600-3	BC	BLK	F710291-BLK1	20	10/18/2017 14:01:47	87519-1.RAW	2:01:47 PM	43.35	3			34.4	0.193	3.852	ng/L	
Hg2600-3	BC	BLK	F710291-BLK2	20	10/18/2017 14:05:56	87520-1.RAW	2:05:56 PM	28.60	3			19.7	0.110	2.200	ng/L	
Hg2600-3	BC	BLK	F710291-BLK3	20	10/18/2017 14:10:04	87521-1.RAW	2:10:04 PM	30.99	3			22.1	0.123	2.468	ng/L	
Hg2600-3	BC	SAM	*F710291-BLK4	20	10/18/2017 14:14:13	87522-1.RAW	2:14:13 PM	24.55	3			15.6	-0.055	-1.092	ng/L	
Hg2600-3	BC	SAM	*F710291-BLK5	20	10/18/2017 14:18:21	87523-1.RAW	2:18:21 PM	24.83	3			15.9	-0.053	-1.061	ng/L	
Hg2600-3	BC	SAM	WS	100	10/18/2017 14:22:30	87524-1.RAW	2:22:30 PM	875.97	x			867.0	4.853	485.276	ng/L	
Hg2600-3	BC	SAM	F710291-BS1	20	10/18/2017 14:26:38	87525-1.RAW	2:26:38 PM	966.14	3			957.2	5.215	104.309	ng/L	
Hg2600-3	BC	SAM	F710291-BSD1	20	10/18/2017 14:30:46	87526-1.RAW	2:30:46 PM	989.96	3			981.0	5.349	106.975	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	10/18/2017 14:34:55	87527-1.RAW	2:34:55 PM	895.36				886.4	4.961	4.961	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	10/18/2017 14:39:03	87528-1.RAW	2:39:03 PM	24.04				15.1	0.085	0.085	ng/L	
Hg2600-3	BC	SAM	1709629-19	100	10/18/2017 14:44:22	87529-2.RAW	2:44:22 PM	1809.16	3			1800.2	10.047	1004.737	ng/L	
Hg2600-3	BC	SAM	F710291-BS2	400	10/18/2017 14:48:30	87530-1.RAW	2:48:30 PM	1084.89	3			1076.0	6.015	2405.990	ng/L	
Hg2600-3	BC	SAM	1709629-20	100	10/18/2017 14:52:39	87531-1.RAW	2:52:39 PM	2421.15	3			2412.2	13.473	1347.269	ng/L	
Hg2600-3	BC	SAM	1709630-01	100	10/18/2017 14:56:47	87532-1.RAW	2:56:47 PM	2094.50	3			2085.6	11.644	1164.444	ng/L	
Hg2600-3	BC	SAM	1709630-02	100	10/18/2017 15:00:56	87533-1.RAW	3:00:56 PM	2169.65	3			2160.7	12.065	1206.504	ng/L	
Hg2600-3	BC	SAM	1709630-03	100	10/18/2017 15:05:04	87534-1.RAW	3:05:04 PM	1177.18	3			1168.2	6.510	651.020	ng/L	
Hg2600-3	BC	SAM	1709630-04	100	10/18/2017 15:09:12	87535-1.RAW	3:09:12 PM	3392.02	3			3383.1	18.907	1890.658	ng/L	
Hg2600-3	BC	SAM	1709630-05	100	10/18/2017 15:13:21	87536-1.RAW	3:13:21 PM	1792.48	3			1783.5	9.954	995.404	ng/L	
Hg2600-3	BC	SAM	1709630-06	100	10/18/2017 15:17:29	87537-1.RAW	3:17:29 PM	2507.07	3			2498.1	13.954	1395.358	ng/L	
Hg2600-3	BC	SAM	1709630-07	100	10/18/2017 15:21:38	87538-1.RAW	3:21:38 PM	2625.83	3			2616.9	14.618	1461.828	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	10/18/2017 15:25:46	87539-1.RAW	3:25:46 PM	921.29				912.4	5.106	5.106	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	10/18/2017 15:29:55	87540-1.RAW	3:29:55 PM	30.69				21.7	0.122	0.122	ng/L	
Hg2600-3	BC	SAM	1709630-08	100	10/18/2017 15:34:03	87541-1.RAW	3:34:03 PM	3035.66	3			3026.7	16.912	1691.207	ng/L	
Hg2600-3	BC	SAM	1709630-09	100	10/18/2017 15:38:12	87542-1.RAW	3:38:12 PM	2627.13	3			2618.2	14.626	1462.551	ng/L	
Hg2600-3	BC	SAM	1709630-10	100	10/18/2017 15:42:20	87543-1.RAW	3:42:20 PM	1511.24	3			1502.3	8.380	837.996	ng/L	
Hg2600-3	BC	SAM	1709630-11	100	10/18/2017 15:46:28	87544-1.RAW	3:46:28 PM	1954.56	3			1945.6	10.861	1086.118	ng/L	
Hg2600-3	BC	SAM	1709630-12	100	10/18/2017 15:50:36	87545-1.RAW	3:50:36 PM	1382.72	3			1373.8	7.661	766.064	ng/L	
Hg2600-3	BC	SAM	1709630-13	100	10/18/2017 15:54:44	87546-1.RAW	3:54:44 PM	2213.58	3			2204.6	12.311	1231.093	ng/L	
Hg2600-3	BC	SAM	1709630-14	100	10/18/2017 15:58:52	87547-1.RAW	3:58:52 PM	2114.21	3			2105.3	11.755	1175.471	ng/L	
Hg2600-3	BC	SAM	1709630-15	100	10/18/2017 16:03:01	87548-1.RAW	4:03:01 PM	2911.77	3			2902.8	16.219	1621.866	ng/L	
Hg2600-3	BC	SAM	1709630-16	100	10/18/2017 16:07:09	87549-1.RAW	4:07:09 PM	1897.84	3			1888.9	10.544	1054.373	ng/L	
Hg2600-3	BC	SAM	1709630-17	100	10/18/2017 16:11:17	87550-1.RAW	4:11:17 PM	2532.17	3			2523.2	14.094	1409.406	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	10/18/2017 16:15:26	87551-1.RAW	4:15:26 PM	925.45				916.5	5.130	5.130	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8	1	10/18/2017 16:19:34	87552-1.RAW	4:19:34 PM	36.62				27.7	0.155	0.155	ng/L	
Hg2600-3	BC	SAM	1709630-18	100	10/18/2017 16:23:43	87553-1.RAW	4:23:43 PM	2282.15	3			2273.2	12.695	1269.470	ng/L	
Hg2600-3	BC	SAM	F710291-DUP1	100	10/18/2017 16:27:51	87554-1.RAW	4:27:51 PM	1856.10	3			1847.2	10.310	1031.010	ng/L	
Hg2600-3	BC	SAM	F710291-MS1	400	10/18/2017 16:31:59	87555-1.RAW	4:31:59 PM	2790.65	3			2781.7	15.562	6224.819	ng/L	
Hg2600-3	BC	SAM	F710291-MSD1	400	10/18/2017 16:36:08	87556-1.RAW	4:36:08 PM	2472.94	3			2464.0	13.784	5513.544	ng/L	
Hg2600-3	BC	SAM	F710291-MS2	400	10/18/2017 16:40:16	87557-1.RAW	4:40:16 PM	2747.46	3			2738.5	15.320	6128.137	ng/L	
Hg2600-3	BC	SAM	F710291-MSD2	400	10/18/2017 16:44:25	87558-1.RAW	4:44:25 PM	2740.02	3			2731.1	15.279	6111.467	ng/L	
Hg2600-3	BC	BLK	F710351-BLK1	50	10/18/2017 16:48:33	87559-1.RAW	4:48:33 PM	44.44	4			35.5	0.199	9.935	ng/L	
Hg2600-3	BC	BLK	F710351-BLK2	50	10/18/2017 16:52:41	87560-1.RAW	4:52:41 PM	29.20	4			20.3	0.113	5.670	ng/L	
Hg2600-3	BC	SAM	F710351-BS1	400	10/18/2017 16:56:50	87561-1.RAW	4:56:50 PM	1320.63	4			1311.7	7.322	2928.797	ng/L	
Hg2600-3	BC	SAM	F710351-BSD1	400	10/18/2017 17:00:58	87562-1.RAW	5:00:58 PM	1098.62	4			1089.7	6.079	2431.770	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV9	1	10/18/2017 17:05:07	87563-1.RAW	5:05:07 PM	918.40				909.5	5.090	5.090	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB9	1	10/18/2017 17:09:15	87564-1.RAW	5:09:15 PM	33.31				24.4	0.136	0.136	ng/L	
Hg2600-3	BC	SAM	1710455-01	50	10/18/2017 17:13:24	87565-1.RAW	5:13:24 PM	25.53	4			16.6	-0.063	-3.159	ng/L	
Hg2600-3	BC	SAM	1710458-01	50	10/18/2017 17:17:32	87566-1.RAW	5:17:32 PM	23.05	4			14.1	-0.077	-3.854	ng/L	
Hg2600-3	BC	SAM	F710351-DUP1	50	10/18/2017 17:21:40	87567-1.RAW	5:21:40 PM	16.89	4			8.0	-0.112	-5.577	ng/L	
Hg2600-3	BC	SAM	F710351-MS1	400	10/18/2017 17:25:49	87568-1.RAW	5:25:49 PM	1296.98	4			1288.0	7.190	2875.856	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	SAM	F710351-MSD1	400	10/18/2017 17:29:57	87569-1.RAW	5:29:57 PM	1232.58	4		1223.6	6.829	2731.670	ng/L	
Hg2600-3	BC	CAL	SEQ-CCVA	1	10/18/2017 17:34:06	87570-1.RAW	5:34:06 PM	918.05			909.1	5.088	5.088	ng/L	
Hg2600-3	BC	CAL	SEQ-CCBA	1	10/18/2017 17:38:14	87571-1.RAW	5:38:14 PM	28.53			19.6	0.110	0.110	ng/L	

TotalMercury EPA1631
 Operati BC BlankSi 8.9373 Calib Eqn: Conc = (Area-8.937 Run Date: ##### Blank SD: 1.619207196
 Worksh THg260(CalibFa 178.67 Status: QC Warnings:11/QC Run Time: 14:40:13 Blank RSD%: 18.11738586
 Method ##### R: 0.9999 R2: 0.9997 CF SD: 5.361978241
 Descrip THg26002-171017-1 CF RSD%: 3.001081205

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean				0.00	3.37					87442-1.RAW	8:29:09	601.91	Clean	OK	1	
clean				0.00	0.02					87443-1.RAW	8:32:01	4.33	Clean	OK	1	
ws				8.94	0.00					87444-1.RAW	8:36:09	9.38	Sample	OK	1	
ws				8.94	0.00					87445-1.RAW	8:40:17	6.19	Sample	OK	1	
ws				8.94	0.00					87446-1.RAW	8:44:26	6.02	Sample	OK	1	
SEQ-IBL1	A1		1	0.00	0.06					87447-1.RAW	8:48:34	10.80	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.05					87448-1.RAW	8:52:43	8.09	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.04					87449-1.RAW	8:56:51	7.92	Sample	OK	1	
SEQ-CAL1	A4		1	8.94	0.50			99.69		87450-1.RAW	9:01:00	97.99	Sample	OK	1	
SEQ-CAL2	A5		1	8.94	1.04			104.23		87451-1.RAW	9:05:08	195.16	Sample	OK	1	
SEQ-CAL3	A6		1	8.94	5.05			100.97		87452-1.RAW	9:09:17	910.96	Sample	OK	1	
SEQ-CAL4	A7		1	8.94	19.83			99.17		87453-1.RAW	9:13:25	3552.62	Sample	OK	1	
SEQ-CAL5	A8		1	8.94	38.38			95.95		87454-1.RAW	9:17:34	6865.94	Sample	OK	1	
SEQ-ICV1	A9		1	8.94	5.02			100.40		87455-1.RAW	9:21:42	905.88	Sample	OK	1	
WS				8.94	0.21					87456-1.RAW	9:39:08	46.72	Sample	OK	1	
F710376-BLK1	A10		1	8.94	0.00					87457-1.RAW	9:43:17	8.83	Sample	OK	1	
F710376-BLK2	A11		1	8.94	0.00					87458-1.RAW	9:47:25	8.79	Sample	OK	1	
F710376-BLK3	A12		1	8.94	0.01					87459-1.RAW	9:51:34	10.89	Sample	OK	1	
F710376-BLK4	A13		1	8.94	0.00					87460-1.RAW	9:55:42	6.34	Sample	OK	1	
F710376-BLK5	A14		1	8.94	0.00					87461-1.RAW	9:59:51	8.60	Sample	OK	1	
F710376-BLK6	A15		1	8.94	0.00					87462-1.RAW	10:03:59	8.32	Sample	OK	1	
1710146-01	A16		1	8.94	0.47					87463-1.RAW	10:08:08	93.25	Sample	OK	1	
1710146-02	A17		1	8.94	0.04					87464-1.RAW	10:12:16	16.05	Sample	OK	1	
1710329-01	A18		1	8.94	1.81					87465-1.RAW	10:16:25	332.89	Sample	OK	1	
1710329-02	A19		1	8.94	0.02					87466-1.RAW	10:20:33	13.26	Sample	OK	1	
SEQ-CCV1	A20		1	8.94	4.89			97.90		87467-1.RAW	10:24:41	883.51	Sample	OK	1	
SEQ-CCB1	A21		1	8.94	0.04			0.00		87468-1.RAW	10:28:50	15.31	Sample	OK	1	
F710376-BS1	B1		1	8.94	15.30					87469-1.RAW	10:32:58	2742.19	Sample	OK	1	
F710376-BSD1	B2		1	8.94	16.17					87470-1.RAW	10:37:07	2897.31	Sample	OK	1	
F710376-DUP1	B3		1	8.94	1.87					87471-1.RAW	10:41:15	342.88	Sample	OK	1	
F710376-MS1	B4		1	8.94	6.69			233.28		87472-1.RAW	10:45:24	1204.78	Sample	OK	1	
F710376-MSD1	B5		1	8.94	6.77					87473-1.RAW	10:49:32	1218.64	Sample	OK	1	
ws	A6		20	8.94	103.79					87474-1.RAW	10:53:41	936.17	Sample	OK	1	WRONG LOCATION
ws	A7		20	8.94	390.15					87475-1.RAW	10:57:49	3494.33	Sample	OK	1	WRONG LOCATION
F710215-BLK3	B8		20	8.94	2.36					87476-2.RAW	11:03:44	30.01	Sample	OK	1	
*F710215-BLK4	B9		20	8.94	2.12					87477-1.RAW	11:07:53	27.90	Sample	OK	1	
*F710215-BLK5	B10		20	8.94	1.28					87478-1.RAW	11:12:01	20.34	Sample	OK	1	
SEQ-CCV2	B11		1	8.94	5.02			100.43		87479-1.RAW	11:16:10	906.16	Sample	OK	1	
SEQ-CCB2	B12		1	8.94	0.05			0.00		87480-1.RAW	11:20:18	18.09	Sample	OK	1	
*F710215-BLK6	B13		20	8.94	1.04					87481-1.RAW	11:24:27	18.25	Sample	OK	1	
*F710215-BLK7	B14		20	8.94	0.69					87482-1.RAW	11:28:35	15.07	Sample	OK	1	
F710215-BLK1	B15		20	8.94	1.67					87483-1.RAW	11:32:43	23.82	Sample	OK	1	
F710215-BLK2	B16		20	8.94	1.22					87484-1.RAW	11:36:52	19.81	Sample	OK	1	
F710215-BS1	B17		20	8.94	99.82					87485-1.RAW	11:41:00	900.71	Sample	OK	1	
F710215-BSD1	B18		20	8.94	105.25					87486-1.RAW	11:45:09	949.16	Sample	OK	1	
F710215-BS2	B19		400	8.94	2155.87					87487-1.RAW	11:49:17	971.90	Sample	OK	1	
1709619-06	B20		100	8.94	1073.25					87488-1.RAW	11:53:26	1926.50	Sample	OK	1	
1709619-07	B21		100	8.94	909.17					87489-1.RAW	11:57:34	1633.34	Sample	OK	1	
1709619-08	C1		100	8.94	1022.51					87490-1.RAW	12:01:43	1835.83	Sample	OK	1	

SEQ-CCV3	C2	1	8.94	4.87	97.35	87491-1.RAW	12:05:51	878.64	Sample	OK	1
SEQ-CCB3	C3	1	8.94	0.07	0.00	87492-1.RAW	12:09:59	21.49	Sample	OK	1
1709619-09	C4	100	8.94	935.64		87493-1.RAW	12:14:08	1680.62	Sample	OK	1
1709619-10	C5	100	8.94	967.54		87494-1.RAW	12:18:16	1737.63	Sample	OK	1
1709619-11	C6	100	8.94	1011.16		87495-1.RAW	12:22:25	1815.57	Sample	OK	1
1709619-12	C7	100	8.94	1048.33		87496-1.RAW	12:26:33	1881.97	Sample	OK	1
1709619-13	C8	100	8.94	1031.99		87497-1.RAW	12:30:42	1852.77	Sample	OK	1
1709619-14	C9	100	8.94	1107.54		87498-1.RAW	12:34:50	1987.76	Sample	OK	1
1709619-15	C10	100	8.94	1014.08		87499-1.RAW	12:38:59	1820.77	Sample	OK	1
1709619-16	C11	100	8.94	853.62		87500-1.RAW	12:43:07	1534.09	Sample	OK	1
1709619-17	C12	100	8.94	882.46		87501-1.RAW	12:47:15	1585.61	Sample	OK	1
1709619-18	C13	100	8.94	942.07		87502-1.RAW	12:51:24	1692.12	Sample	OK	1
SEQ-CCV4	C14	1	8.94	5.20	103.98	87503-1.RAW	12:55:32	937.83	Sample	OK	1
SEQ-CCB4	C15	1	8.94	0.05	0.00	87504-1.RAW	12:59:41	18.47	Sample	OK	1
1709619-19	C16	100	8.94	977.03		87505-1.RAW	13:03:49	1754.58	Sample	OK	1
1709619-20	C17	100	8.94	821.77		87506-1.RAW	13:07:58	1477.18	Sample	OK	1
1709620-01	C18	100	8.94	654.39		87507-1.RAW	13:12:06	1178.13	Sample	OK	1
1709620-02	C19	100	8.94	1826.19		87508-1.RAW	13:16:15	3271.75	Sample	OK	1
1709620-03	C20	100	8.94	2339.16		87509-1.RAW	13:20:23	4188.28	Sample	OK	1
1709620-04	C21	100	8.94	1419.53		87510-1.RAW	13:24:31	2545.18	Sample	OK	1
1709620-07	A1	100	8.94	1648.72		87511-1.RAW	13:28:40	2954.67	Sample	OK	1
F710215-DUP1	A2	100	8.94	996.46		87512-1.RAW	13:32:48	1789.30	Sample	OK	1
F710215-MS1	A3	400	8.94	5643.59	565.80	87513-1.RAW	13:36:57	2529.76	Sample	OK	1
F710215-MSD1	A4	400	8.94	5658.16		87514-1.RAW	13:41:05	2536.27	Sample	OK	1
SEQ-CCV5	A5	1	8.94	5.23	104.55	87515-1.RAW	13:45:14	942.94	Sample	OK	1
SEQ-CCB5	A6	1	8.94	0.14	0.00	87516-1.RAW	13:49:22	34.80	Sample	OK	1
F710215-MS2	A7	400	8.94	5665.77	264166.22	87517-1.RAW	13:53:30	2539.67	Sample	OK	1
F710215-MSD2	A8	400	8.94	6038.79		87518-1.RAW	13:57:39	2706.28	Sample	OK	1
F710291-BLK1	A9	20	8.94	3.85		87519-1.RAW	14:01:47	43.35	Sample	OK	1
F710291-BLK2	A10	20	8.94	2.20		87520-1.RAW	14:05:56	28.60	Sample	OK	1
F710291-BLK3	A11	20	8.94	2.47		87521-1.RAW	14:10:04	30.99	Sample	OK	1
*F710291-BLK4	A12	20	8.94	1.75		87522-1.RAW	14:14:13	24.55	Sample	OK	1
*F710291-BLK5	A13	20	8.94	1.78		87523-1.RAW	14:18:21	24.83	Sample	OK	1
WS	A17	100	8.94	485.28		87524-1.RAW	14:22:30	875.97	Sample	OK	1
F710291-BS1	A14	20	8.94	107.15		87525-1.RAW	14:26:38	966.14	Sample	OK	1
F710291-BSD1	A15	20	8.94	109.81		87526-1.RAW	14:30:46	989.96	Sample	OK	1
SEQ-CCV6	A17	1	8.94	4.96	99.23	87527-1.RAW	14:34:55	895.36	Sample	OK	1
SEQ-CCB6	A18	1	8.94	0.08	0.00	87528-1.RAW	14:39:03	24.04	Sample	OK	1
1709629-19	A19	100	8.94	1007.58		87529-2.RAW	14:44:22	1809.16	Sample	OK	1
F710291-BS2	A16	400	8.94	2408.83		87530-1.RAW	14:48:30	1084.89	Sample	OK	1
1709629-20	A20	100	8.94	1350.11		87531-1.RAW	14:52:39	2421.15	Sample	OK	1
1709630-01	A21	100	8.94	1167.28		87532-1.RAW	14:56:47	2094.50	Sample	OK	1
1709630-02	B1	100	8.94	1209.34		87533-1.RAW	15:00:56	2169.65	Sample	OK	1
1709630-03	B2	100	8.94	653.86		87534-1.RAW	15:05:04	1177.18	Sample	OK	1
1709630-04	B3	100	8.94	1893.50		87535-1.RAW	15:09:12	3392.02	Sample	OK	1
1709630-05	B4	100	8.94	998.24		87536-1.RAW	15:13:21	1792.48	Sample	OK	1
1709630-06	B5	100	8.94	1398.20		87537-1.RAW	15:17:29	2507.07	Sample	OK	1
1709630-07	B6	100	8.94	1464.67		87538-1.RAW	15:21:38	2625.83	Sample	OK	1
SEQ-CCV7	B7	1	8.94	5.11	102.13	87539-1.RAW	15:25:46	921.29	Sample	OK	1
SEQ-CCB7	B8	1	8.94	0.12	0.00	87540-1.RAW	15:29:55	30.69	Sample	OK	1
1709630-08	B9	100	8.94	1694.05		87541-1.RAW	15:34:03	3035.66	Sample	OK	1
1709630-09	B10	100	8.94	1465.39		87542-1.RAW	15:38:12	2627.13	Sample	OK	1
1709630-10	B11	100	8.94	840.84		87543-1.RAW	15:42:20	1511.24	Sample	OK	1
1709630-11	B12	100	8.94	1088.96		87544-1.RAW	15:46:28	1954.56	Sample	OK	1

WRONG LOCATION

1709630-12	B13	100	8.94	768.90		87545-1.RAW	15:50:36	1382.72	Sample	OK	1
1709630-13	B14	100	8.94	1233.93		87546-1.RAW	15:54:44	2213.58	Sample	OK	1
1709630-14	B15	100	8.94	1178.31		87547-1.RAW	15:58:52	2114.21	Sample	OK	1
1709630-15	B16	100	8.94	1624.71		87548-1.RAW	16:03:01	2911.77	Sample	OK	1
1709630-16	B17	100	8.94	1057.21		87549-1.RAW	16:07:09	1897.84	Sample	OK	1
1709630-17	B18	100	8.94	1412.25		87550-1.RAW	16:11:17	2532.17	Sample	OK	1
SEQ-CCV8	B19	1	8.94	5.13	102.59	87551-1.RAW	16:15:26	925.45	Sample	OK	1
SEQ-CCB8	B20	1	8.94	0.15	0.00	87552-1.RAW	16:19:34	36.62	Sample	OK	1
1709630-18	B21	100	8.94	1272.31		87553-1.RAW	16:23:43	2282.15	Sample	OK	1
F710291-DUP1	C1	100	8.94	1033.85		87554-1.RAW	16:27:51	1856.10	Sample	OK	1
F710291-MS1	C2	400	8.94	6227.66	601.79	87555-1.RAW	16:31:59	2790.65	Sample	OK	1
F710291-MSD1	C3	400	8.94	5516.38		87556-1.RAW	16:36:08	2472.94	Sample	OK	1
F710291-MS2	C4	400	8.94	6130.98	111.10	87557-1.RAW	16:40:16	2747.46	Sample	OK	1
F710291-MSD2	C5	400	8.94	6114.31		87558-1.RAW	16:44:25	2740.02	Sample	OK	1
F710351-BLK1	C6	50	8.94	9.94		87559-1.RAW	16:48:33	44.44	Sample	OK	1
F710351-BLK2	C7	50	8.94	5.67		87560-1.RAW	16:52:41	29.20	Sample	OK	1
F710351-BS1	C8	400	8.94	2936.60		87561-1.RAW	16:56:50	1320.63	Sample	OK	1
F710351-BSD1	C9	400	8.94	2439.57		87562-1.RAW	17:00:58	1098.62	Sample	OK	1
SEQ-CCV9	C10	1	8.94	5.09	101.80	87563-1.RAW	17:05:07	918.40	Sample	OK	1
SEQ-CCB9	C11	1	8.94	0.14	0.00	87564-1.RAW	17:09:15	33.31	Sample	OK	1
1710455-01	C12	50	8.94	4.64		87565-1.RAW	17:13:24	25.53	Sample	OK	1
1710458-01	C13	50	8.94	3.95		87566-1.RAW	17:17:32	23.05	Sample	OK	1
F710351-DUP1	C14	50	8.94	2.23		87567-1.RAW	17:21:40	16.89	Sample	OK	1
F710351-MS1	C15	400	8.94	2883.66	89398.43	87568-1.RAW	17:25:49	1296.98	Sample	OK	1
F710351-MSD1	C16	400	8.94	2739.47		87569-1.RAW	17:29:57	1232.58	Sample	OK	1
SEQ-CCVA	C17	1	8.94	5.09		87570-1.RAW	17:34:06	918.05	Sample	OK	1
SEQ-CCBA	C18	1	8.94	0.11		87571-1.RAW	17:38:14	28.53	Sample	OK	1
SNCL 1706141	C19	1	8.94	0.06		87572-1.RAW	17:42:22	20.12	Sample	OK	1
CLEAN			0.00	0.05		87573-1.RAW	17:45:14	9.54	Clean	OK	1
CLEAN			0.00	0.05		87574-1.RAW	17:48:05	9.59	Clean	OK	1
WS			8.94	0.05		87575-1.RAW	17:52:14	17.45	Sample	OK	1
WS			8.94	0.00		87576-1.RAW	17:56:22	7.84	Sample	OK	1
WS			8.94	0.02		87577-1.RAW	18:00:30	13.09	Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE

PEER-REVIEWED

7J18020

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R 10/19/17* Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18020-IBL1 ✓	QC	1			
7J18020-IBL2 ✓	QC	2			
7J18020-IBL3 ✓	QC	3			
7J18020-CAL1 ✓	QC	4	1704505	✓	
7J18020-CAL2 ✓	QC	5	1704506	✓	
7J18020-CAL3 ✓	QC	6	1704507	✓	
7J18020-CAL4 ✓	QC	7	1704508	✓	
7J18020-CAL5 ✓	QC	8	1704509	✓	
7J18020-ICV1 ✓	QC	9	1705628	✓	
7J18020-CCV1 ✓	QC	10	1705628	✓	
7J18020-CCB1 ✓	QC	11			
F710215-BLK3 ✓	QC	12			
F710215-BLK4 ✓	QC	13			
F710215-BLK5 ✓	QC	14			
7J18020-CCV2 ✓	QC	15	1705628	✓	
7J18020-CCB2 ✓	QC	16			
F710215-BLK6 ✓	QC	17			
F710215-BLK7 ✓	QC	18			
F710215-BLK1 ✓	QC	19			
F710215-BLK2 ✓	QC	20			
F710215-BS1 ✓	QC	21			
F710215-BSD1 ✓	QC	22			
F710215-BS2 ✓	QC	23			
1709619-06 ✓	Hg-CVAFS-T-7030	24			
1709619-07 ✓	Hg-CVAFS-T-7030	25			
1709619-08 ✓	Hg-CVAFS-T-7030	26			
7J18020-CCV3	QC	27	1705628	✓	
7J18020-CCB3 ✓	QC	28			
1709619-09 ✓	Hg-CVAFS-T-7030	29			
1709619-10 ✓	Hg-CVAFS-T-7030	30			
1709619-11 ✓	Hg-CVAFS-T-7030	31			
1709619-12 ✓	Hg-CVAFS-T-7030	32			
1709619-13 ✓	Hg-CVAFS-T-7030	33			
1709619-14 ✓	Hg-CVAFS-T-7030	34			
1709619-15 ✓	Hg-CVAFS-T-7030	35			

ANALYSIS SEQUENCE

7J18020

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709619-16 ✓	Hg-CVAFS-T-7030	36			
1709619-17 ✓	Hg-CVAFS-T-7030	37			
1709619-18 ✓	Hg-CVAFS-T-7030	38			
7J18020-CCV4 ✓	QC	39	1705628	✓	
7J18020-CCB4 ✓	QC	40			
1709619-19 ✓	Hg-CVAFS-T-7030	41			
1709619-20 ✓	Hg-CVAFS-T-7030	42			
1709620-01 ✓	Hg-CVAFS-T-7030	43			
1709620-02 ✓	Hg-CVAFS-T-7030	44			
1709620-03 ✓	Hg-CVAFS-T-7030	45			
1709620-04 ✓	Hg-CVAFS-T-7030	46			
1709620-07 ✓	Hg-CVAFS-T-7030	47			
F710215-DUP1 ✓	QC	48			
F710215-MS1 ✓	QC	49			
F710215-MSD1 ✓	QC	50			
7J18020-CCV5 ✓	QC	51	1705628		
7J18020-CCB5 ✓	QC	52			
F710215-MS2 ✓	QC	53			
F710215-MSD2 ✓	QC	54			
F710291-BLK1 ✓	QC	55			
F710291-BLK2 ✓	QC	56			
F710291-BLK3 ✓	QC	57			
F710291-BLK4 ✓	QC	58			
F710291-BLK5 ✓	QC	59			
F710291-BS1 ✓	QC	60			
F710291-BSD1 ✓	QC	61			
7J18020-CCV6 ✓	QC	62	1705628	✓	
7J18020-CCB6 ✓	QC	63			
1709629-19 ✓	Hg-CVAFS-T-7030	64			
F710291-BS2 ✓	QC	65			
1709629-20 ✓	Hg-CVAFS-T-7030	66			
1709630-01 ✓	Hg-CVAFS-T-7030	67			
1709630-02 ✓	Hg-CVAFS-T-7030	68			
1709630-03 ✓	Hg-CVAFS-T-7030	69			
1709630-04 ✓	Hg-CVAFS-T-7030	70			

Due Date: 10/20/2017

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ANALYSIS SEQUENCE

7J18020

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709630-05 ✓	Hg-CVAFS-T-7030	71			
1709630-06 ✓	Hg-CVAFS-T-7030	72			
1709630-07 ✓	Hg-CVAFS-T-7030	73			
7J18020-CCV7 ✓	QC	74	1705628	✓	
7J18020-CCB7 ✓	QC	75			
1709630-08 ✓	Hg-CVAFS-T-7030	76			
1709630-09 ✓	Hg-CVAFS-T-7030	77			
1709630-10 ✓	Hg-CVAFS-T-7030	78			
1709630-11 ✓	Hg-CVAFS-T-7030	79			
1709630-12 ✓	Hg-CVAFS-T-7030	80			
1709630-13 ✓	Hg-CVAFS-T-7030	81			
1709630-14 ✓	Hg-CVAFS-T-7030	82			
1709630-15 ✓	Hg-CVAFS-T-7030	83			
1709630-16 ✓	Hg-CVAFS-T-7030	84			
1709630-17 ✓	Hg-CVAFS-T-7030	85		✓	
7J18020-CCV8 ✓	QC	86	1705628		
7J18020-CCB8 ✓	QC	87			
1709630-18 ✓	Hg-CVAFS-T-7030	88			
F710291-DUP1 ✓	QC	89			
F710291-MS1 ✓	QC	90			
F710291-MSD1 ✓	QC	91			
F710291-MS2 ✓	QC	92			
F710291-MSD2 ✓	QC	93			
7J18020-CCV9 ✓	QC	94	1705628	✓	
7J18020-CCB9 ✓	QC	95			

Beck 10/18/17
 Samples Loaded By Date

Beck 10/18/17
 Data Processed By Date

10767
 10/17/17

PREPARATION BENCH SHEET

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710215-BLK1	Blank	0.25	20					
F710215-BLK2	Blank	0.25	20					
F710215-BLK3	Blank	0.25	20					
F710215-BLK4	Blank	0.266	20					Pre-homogenization Blank for 1709619
F710215-BLK5	Blank	0.258	20					Post-homogenization Blank for 1709619
F710215-BLK6	Blank	0.276	20					Pre-homogenization Blank for 1709620
F710215-BLK7	Blank	0.252	20					Post-homogenization Blank for 1709620
F710215-BS1	LCS	0.25	20	1704421	20			
F710215-BS2	DORM4	0.1256	20	1705412	125.6			
F710215-BSD1	LCS Dup	0.25	20	1704421	20			
F710215-DUP1	Duplicate [1709619-06]	0.276	20					
F710215-MS1	Matrix Spike [1709619-06]	0.276	20	1705554	100			
F710215-MS2	Matrix Spike [1709619-07]	0.267	20	1705554	100			
F710215-MSD1	Matrix Spike Dup [1709619-06]	0.266	20	1705554	100			
F710215-MSD2	Matrix Spike Dup [1709619-07]	0.274	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709619-06	OB-05_17SN001_091517_MUM_06_WB	0.28	20	-	-	-		
1709619-07	OB-05_17SN001_091517_MUM_07_WB	0.254	20	-	-	-		
1709619-08	OB-05_17SN001_091517_MUM_08_WB	0.263	20	-	-	-		
1709619-09	OB-05_17SN001_091517_MUM_09_WB	0.252	20	-	-	-		
1709619-10	OB-05_17SN001_091517_MUM_10_WB	0.259	20	-	-	-		
1709619-11	OB-05_17SN001_091517_MUM_11_WB	0.262	20	-	-	-		
1709619-12	OB-05_17SN001_091517_MUM_12_WB	0.259	20	-	-	-		
1709619-13	OB-05_17SN001_091517_MUM_13_WB	0.268	20	-	-	-		
1709619-14	OB-05_17SN001_091517_MUM_14_WB	0.272	20	-	-	-		
1709619-15	OB-05_17SN001_091517_MUM_15_WB	0.261	20	-	-	-		
1709619-16	OB-05_17SN001_091517_MUM_16_WB	0.262	20	-	-	-		
1709619-17	OB-05_17SN001_091517_MUM_17_WB	0.265	20	-	-	-		
1709619-18	OB-05_17SN001_091517_MUM_18_WB	0.269	20	-	-	-		
1709619-19	OB-05_17SN001_091517_MUM_19_WB	0.255	20	-	-	-		
1709619-20	OB-05_17SN001_091517_MUM_20_WB	0.262	20	-	-	-		
1709620-01	MMMC-01_17MT001_091817_MUM_01_WB	0.254	20	-	-	-		
1709620-02	MMMC-01_17MT001_092017_MUM_02_WB	0.267	20	-	-	-		
1709620-03	MMMC-01_17MT004_092017_MUM_03_WB	0.271	20	-	-	-		
1709620-04	MMMC-01_17MT004_092017_MUM_04_WB	0.261	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710215

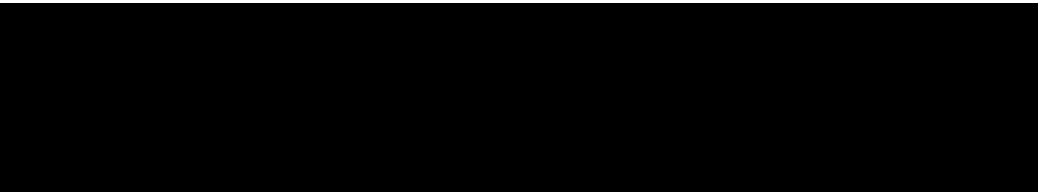
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709620-07	MMMC-01_17MT003_092017_MUM_07_WB	0.2702	20	-	-	-		
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PREPARATION BENCH SHEET

200-2
10/17/17 BC

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710215-BLK1	Blank	0.25	20					20X -
F710215-BLK2	Blank	0.25	20					20X -
F710215-BLK3	Blank	0.25	20					20X -
F710215-BLK4	Blank	0.266	20					Pre-homogenization Blank for 1709619 20X
F710215-BLK5	Blank	0.258	20					Post-homogenization Blank for 1709619 20X
F710215-BLK6	Blank	0.276	20					Pre-homogenization Blank for 1709620 20X
F710215-BLK7	Blank	0.252	20					Post-homogenization Blank for 1709620 20X
F710215-BS1	LCS	0.25	20	1704421	20			20X -
F710215-BS2	DORM4	0.1256	20	1705412	125.6			400X -
F710215-BSD1	LCS Dup	0.25	20	1704421	20			20X -
F710215-DUP1	Duplicate [1709619-06]	0.276	20					100X -
F710215-MS1	Matrix Spike [1709619-06]	0.276	20	1705554	100			400X -
F710215-MS2	Matrix Spike [1709619-07]	0.252	20	1705554	100			400X -
F710215-MSD1	Matrix Spike Dup [1709619-06]	0.266	20	1705554	100			400X -
F710215-MSD2	Matrix Spike Dup [1709619-07]	0.274	20	1705554	100			400X -

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705915	5% BrCl	14-Mar-18 00:00

~~BLK 8 is run of BLK 1~~
~~BLK 9 is run of BLK 2~~

1709182
1705961
1705410
1705411

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709619-06	OB-05_17SN001_091517_MUM_06_WB	0.28	20	-	-	-		100X ✓
1709619-07	OB-05_17SN001_091517_MUM_07_WB	0.254	20	-	-	-		100X ✓
1709619-08	OB-05_17SN001_091517_MUM_08_WB	0.263	20	-	-	-		100X ✓
1709619-09	OB-05_17SN001_091517_MUM_09_WB	0.252	20	-	-	-		100X ✓
1709619-10	OB-05_17SN001_091517_MUM_10_WB	0.259	20	-	-	-		100X ✓
1709619-11	OB-05_17SN001_091517_MUM_11_WB	0.262	20	-	-	-		100X ✓
1709619-12	OB-05_17SN001_091517_MUM_12_WB	0.259	20	-	-	-		100X ✓
1709619-13	OB-05_17SN001_091517_MUM_13_WB	0.268	20	-	-	-		100X ✓
1709619-14	OB-05_17SN001_091517_MUM_14_WB	0.272	20	-	-	-		100X ✓
1709619-15	OB-05_17SN001_091517_MUM_15_WB	0.261	20	-	-	-		100X ✓
1709619-16	OB-05_17SN001_091517_MUM_16_WB	0.262	20	-	-	-		100X ✓
1709619-17	OB-05_17SN001_091517_MUM_17_WB	0.265	20	-	-	-		100X ✓
1709619-18	OB-05_17SN001_091517_MUM_18_WB	0.269	20	-	-	-		100X ✓
1709619-19	OB-05_17SN001_091517_MUM_19_WB	0.255	20	-	-	-		100X ✓
1709619-20	OB-05_17SN001_091517_MUM_20_WB	0.262	20	-	-	-		100X ✓
1709620-01	MMMC-01_17MT001_091817_MUM_01_WB	0.254	20	-	-	-		100X ✓
1709620-02	MMMC-01_17MT001_092017_MUM_02_WB	0.267	20	-	-	-		100X ✓
1709620-03	MMMC-01_17MT004_092017_MUM_03_WB	0.271	20	-	-	-		100X ✓
1709620-04	MMMC-01_17MT004_092017_MUM_04_WB	0.261	20	-	-	-		100X ✓

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

F710215

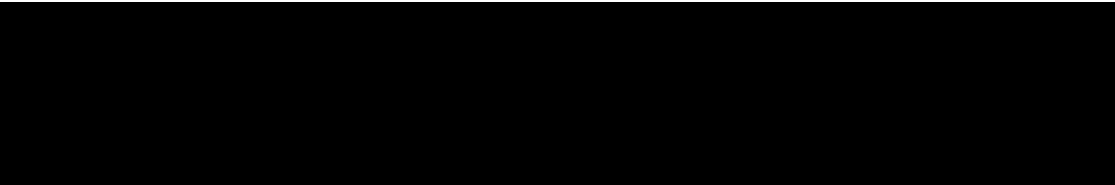
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709620-07	MMMC-01_17MT003_092017_MUM_07_WB	0.2702	20	-	-	-		100X ✓
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Batch#: F710215 Date: 10/4/17

- EFAS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6, 19 (DORM 4) Calibrated? Yes No Therm.#: 40418012 Calibrated? Yes No

*Time in: 17:00 Actual Temp. (raw): 80.12 °C w/ CF: 19.7 °C

Time out: 19:00 Actual Temp. (raw): Timer °C w/ CF: Timer °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705915) Spike vol.: 100 µL (LIMS ID: 1705554)

Spike Witness: DM 10/4/17 (initial and date)

HCl LIMS ID: NA

Pipette SN#: MM11619 Calibration Date: 10/2/17

HNO₃ LIMS ID: NA

Pipette SN#: NA Calibration Date: NA

70/30 LIMS ID: 1705859

Dispenser #: 02K2749 Calibrated? Yes No

Other Acid LIMS ID: NA

Dispenser #: 15406623

Glass Vial # 00063642, Boiling Chip lot # 1702551 *Hotblock Position: M5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F710215 - Blk1	0.266	23	1709619 - 17	0.265	BS2 = DORM 4 LIMS: 1705402
2	F710215 - Blk2	0.253	24	1709619 - 18	0.269	
3	F710215 - Blk3	0.272	25	1709619 - 19	0.255	
4	F710215 - BS1	0.258	26	1709619 - 20	0.262	Comments
5	F710215 - BSD1	0.277	27	1709620 - 01	0.254	DUP/ms1/msD1
6	F710215 - BS2	0.256	28	1709620 - 02	0.267	source: 1709619-06
7	1709619 - 06	0.280	29	1709620 - 03	0.271	ms2/msD2
8	F710215 - DUP1	0.276	30	1709620 - 04	0.261	source: 1709619-07
9	F710215 - ms1	0.276	31	1709620 - 05	0.261	BS1/BSD1 spilled with 20µL of 1704421
10	F710215 - msD1	0.266	32	F710215 - Blk4	0.266	
11	1709619 - 07	0.254	33	F710215 - Blk5	0.258	Blk4 + 5 are Pre/Post blanks
12	F710215 - ms2	0.267	34	F710215 - Blk6	0.276	
13	F710215 - msD2	0.274	35	F710215 - Blk7	0.252	Blk6 + 7 are Pre/Post blanks for 1709620
14	1709619 - 08	0.263	36	1709620 - 08 07	0.270	
15	1709619 - 09	0.252	37			Blk6 + 7 are Pre/Post blanks for 1709620
16	1709619 - 10	0.259	38			
17	1709619 - 11	0.262	39			Blk3 does not seem to be 1/20mL Final Volume cu 10/5/17
18	1709619 - 12	0.259	40			
19	1709619 - 13	0.268	41			
20	1709619 - 14	0.272	42			
21	1709619 - 15	0.261	43			
22	1709619 - 16	0.262	44			

PREPARATION BENCH SHEET

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710291-BLK1	Blank	0.25	20					
F710291-BLK2	Blank	0.25	20					
F710291-BLK3	Blank	0.25	20					
F710291-BLK4	Blank	0.298	20					Pre-homogenization Blank for 1709630 + 1709631
F710291-BLK5	Blank	0.295	20					Post-homogenization Blank for 1709630 + 1709631
F710291-BS1	LCS	0.25	20	1704421	20			
F710291-BS2	DORM4	0.1298	20	1705412	129.8			
F710291-BSD1	LCS Dup	0.25	20	1704421	20			
F710291-DUP1	Duplicate [1709629-19]	0.28	20					
F710291-MS1	Matrix Spike [1709629-19]	0.291	20	1705554	100			
F710291-MS2	Matrix Spike [1709630-08]	0.261	20	1705554	100			
F710291-MSD1	Matrix Spike Dup [1709629-19]	0.274	20	1705554	100			
F710291-MSD2	Matrix Spike Dup [1709630-08]	0.285	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705927	70/30 Digestion Acid	02-Apr-18 00:00
			1705961	3% SnCl ₂ THg reductant	25-Mar-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709629-19	ES-FP_17HC001_091917_BLM_19_WB	0.279	20	-	-	-		
1709629-20	ES-FP_17HC001_091917_BLM_20_WB	0.277	20	-	-	-		
1709630-01	ES-13_17HC001_091417_BLM_01_WB	0.29	20	-	-	-		
1709630-02	ES-13_17HC001_091417_BLM_02_WB	0.279	20	-	-	-		
1709630-03	ES-13_17HC001_091417_BLM_03_WB	0.269	20	-	-	-		
1709630-04	ES-13_17HC001_091417_BLM_04_WB	0.262	20	-	-	-		
1709630-05	ES-13_17HC001_091417_BLM_05_WB	0.277	20	-	-	-		
1709630-06	ES-13_17HC001_091417_BLM_06_WB	0.256	20	-	-	-		
1709630-07	ES-13_17HC001_091417_BLM_07_WB	0.267	20	-	-	-		
1709630-08	ES-13_17HC001_091417_BLM_08_WB	0.278	20	QC	-	-	MS/MSD	
1709630-09	ES-13_17HC001_091417_BLM_09_WB	0.277	20	-	-	-		
1709630-10	ES-13_17HC001_091417_BLM_10_WB	0.271	20	-	-	-		
1709630-11	ES-13_17HC001_091417_BLM_11_WB	0.27	20	-	-	-		
1709630-12	ES-13_17HC001_091417_BLM_12_WB	0.275	20	-	-	-		
1709630-13	ES-13_17HC001_091417_BLM_13_WB	0.285	20	-	-	-		
1709630-14	ES-13_17HC001_091417_BLM_14_WB	0.271	20	-	-	-		
1709630-15	ES-13_17HC001_091417_BLM_15_WB	0.259	20	-	-	-		
1709630-16	ES-13_17HC001_091417_BLM_16_WB	0.288	20	-	-	-		
1709630-17	ES-13_17HC001_091417_BLM_17_WB	0.254	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710291

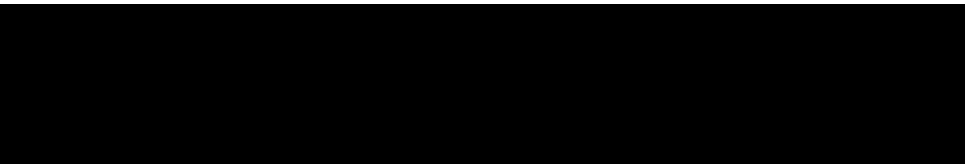
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709630-18	ES-13_17HC001_091417_BLM_18_WB	0.28	20	-	-	-		
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PREPARATION BENCH SHEET

2600-2
10/17/17 BC

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710291-BLK1	Blank	0.25	20					20X
F710291-BLK2	Blank	0.25	20					20X
F710291-BLK3	Blank	0.25	20					20X
F710291-BLK4	Blank	0.298	20					Pre-homogenization Blank for 1709630 + 1709631
F710291-BLK5	Blank	0.295	20					Post-homogenization Blank for 1709630 + 1709631
F710291-BS1	LCS	0.25	20	1704421	20			20X
F710291-BS2	DORM4	0.1298	20	1705412	129.8			400X
F710291-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710291-DUP1	Duplicate [1709629-19]	0.28	20					100X
F710291-MS1	Matrix Spike [1709629-19]	0.291	20	1705554	100			400X
F710291-MS2	Matrix Spike [1709630-08]	0.261	20	1705554	100			400X
F710291-MSD1	Matrix Spike Dup [1709629-19]	0.274	20	1705554	100			400X
F710291-MSD2	Matrix Spike Dup [1709630-08]	0.285	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705927	70/30 Digestion Acid	02-Apr-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706079	5% BrCl	14-Mar-18 00:00

20X = 2.5 mL
~~40X =~~
 100X = 500 µL
 400X = 125 µL

1705610
 1705611
 1705961
 1703182

2600-2
10/17/17 JCL

PREPARATION BENCH SHEET

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709629-19	ES-FP_17HC001_091917_BLM_19_WB	0.279	20	-	-	-	100X -	
1709629-20	ES-FP_17HC001_091917_BLM_20_WB	0.277	20	-	-	-	100X -	
1709630-01	ES-13_17HC001_091417_BLM_01_WB	0.29	20	-	-	-	100X -	
1709630-02	ES-13_17HC001_091417_BLM_02_WB	0.279	20	-	-	-	100X -	
1709630-03	ES-13_17HC001_091417_BLM_03_WB	0.269	20	-	-	-	100X -	
1709630-04	ES-13_17HC001_091417_BLM_04_WB	0.262	20	-	-	-	100X -	
1709630-05	ES-13_17HC001_091417_BLM_05_WB	0.277	20	-	-	-	100X -	
1709630-06	ES-13_17HC001_091417_BLM_06_WB	0.256	20	-	-	-	100X -	
1709630-07	ES-13_17HC001_091417_BLM_07_WB	0.267	20	-	-	-	100X -	
1709630-08	ES-13_17HC001_091417_BLM_08_WB	0.278	20	QC	-	-	MS/MSD 100X -	
1709630-09	ES-13_17HC001_091417_BLM_09_WB	0.277	20	-	-	-	100X -	
1709630-10	ES-13_17HC001_091417_BLM_10_WB	0.271	20	-	-	-	100X -	
1709630-11	ES-13_17HC001_091417_BLM_11_WB	0.27	20	-	-	-	100X -	
1709630-12	ES-13_17HC001_091417_BLM_12_WB	0.275	20	-	-	-	100X -	
1709630-13	ES-13_17HC001_091417_BLM_13_WB	0.285	20	-	-	-	100X -	
1709630-14	ES-13_17HC001_091417_BLM_14_WB	0.271	20	-	-	-	100X -	
1709630-15	ES-13_17HC001_091417_BLM_15_WB	0.259	20	-	-	-	100X -	
1709630-16	ES-13_17HC001_091417_BLM_16_WB	0.288	20	-	-	-	100X -	
1709630-17	ES-13_17HC001_091417_BLM_17_WB	0.254	20	-	-	-	100X -	

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2
10/17/17B

F710291

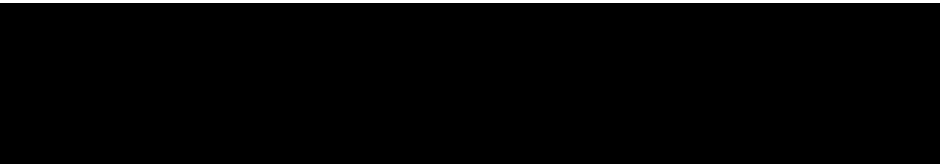
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709630-18	ES-13_17HC001_091417_BLM_18_WB	0.28	20	-	-	-	100%	
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Technician: wf Batch#: F710291 Date: 10/12/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19 (DORM) Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 18:10 Actual Temp. (raw): 72.0 °C w/ CF: 71.7 °C
 Time out: 9:45 Actual Temp. (raw): 80.0 °C w/ CF: 79.3 °C 79.7 °C

*Time in can't begin before target temperature is reached
 Final vol.: 20 mL (LIMS ID: 1706079) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: DM 10/12/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: M11619 Calibration Date: 10/9/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1706064 Dispenser #: 0262749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406523 JYS
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: A3

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710291 - Blk1	0.266	23	1709630 - 10	0.271	BS2=DORM
2	F710291 - Blk2	0.261	24	1709630 - 11	0.270	LIMS: 1705412 Balance: 19
3	F710291 - Blk3	0.259	25	1709630 - 12	0.275	
4	F710291 - BSI	0.261	26	1709630 - 13	0.285	Comments
5	F710291 - BSD1	0.283	27	1709630 - 14	0.271	BSI/BSD1 spiked
6	F710291 - BS2	0.1298	28	1709630 - 15	0.259	with 20µl of 1704421
7	1709629 - 19	0.279	29	1709630 - 16	0.288	
8	F710291 - DUP1	0.280	30	1709630 - 17	0.254	DUP1/MS1/MSD1
9	F710291 - MS1	0.291	31	1709630 - 18	0.280	source: 1709629-19
10	F710291 - MSD1	0.274	32			MS2/MSD2
11	1709629 - 20	0.277	33			source: 1709629-20 1709630-08 wf 10/12/17
12	1709630 - 01	0.290	34			
13	1709630 - 02	0.279	35			* Blk 4+5 Pre/Post
14	1709630 - 03	0.269	36			blanks for 1709630, 1709630
15	1709630 - 04	0.262	37			added 10/12/17 wf.
16	1709630 - 05	0.277	38			
17	1709630 - 06	0.256	39			5% BrCl added by
18	1709630 - 07	0.267	40			AMB.
19	1709630 - 08	0.278	41			*AMB 10/13/17
20	F710291 - MS2	0.261	42			
21	F710291 - MSD2	0.285	43			
22	1709630 - 09	0.277	44			

* 32 F710291 - Blk4 0.298
 wf 10/12/17
 * 33 F710291 - Blk5 0.295
 wf 10/12/17

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7J18019

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *pc 10/19/17*
 Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18019-IBL1	QC	1			
7J18019-IBL2	QC	2			
7J18019-IBL3	QC	3			
7J18019-CAL1	QC	4	1704505	✓	
7J18019-CAL2	QC	5	1704506	✓	
7J18019-CAL3	QC	6	1704507	✓	
7J18019-CAL4	QC	7	1704508	✓	
7J18019-CAL5	QC	8	1704509	✓	
7J18019-ICV1	QC	9	1705628	✓	
7J18019-CCV1	QC	10	1705628	✓	
7J18019-CCB1	QC	11			
7J18019-CCV2	QC	12	1705628	✓	
7J18019-CCB2	QC	13			
7J18019-CCV3	QC	14	1705628	✓	
7J18019-CCB3	QC	15			
7J18019-CCV4	QC	16	1705628	✓	
7J18019-CCB4	QC	17			
7J18019-CCV5	QC	18	1705628	✓	
7J18019-CCB5	QC	19			
7J18019-CCV6	QC	20	1705628	✓	
7J18019-CCB6	QC	21			
7J18019-CCV7	QC	22	1705628	✓	
7J18019-CCB7	QC	23			
7J18019-CCV8	QC	24	1705628	✓	
7J18019-CCB8	QC	25			
F710351-BLK1	QC	26			
F710351-BLK2	QC	27			
F710351-BS1	QC	28			
F710351-BSD1	QC	29			
7J18019-CCV9	QC	30	1705628	✓	
7J18019-CCB9	QC	31			
1710455-01	Hg-CVAFS-S-Bomb	32			QG00L-1 - Prep 2.0-2.15 grams
1710458-01	Hg-CVAFS-S-Bomb	33			QG00L-1 - Prep 2.0-2.15 grams
F710351-DUP1	QC	34			
F710351-MS1	QC	35			

ANALYSIS SEQUENCE

7J18019

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F710351-MSD1 ✓	QC	36			
7J18019-CCVA ✓	QC	37	1705628	✓	
7J18019-CCBA ✓	QC	38			

[Signature] 10/18/17
Samples Loaded By Date

[Signature] 10/18/17
Data Processed By Date

10/17/17
B.P.O.1

Failing Data Report - 7J18019

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
-----------	----------	--------	-----	---------------	------------------	---------------	-------	--------	-------------	-------------	-----	--------------	----------	---------	-----------

Be cing 10/18/17
Analyst Reviewed By Date

[Signature] 12/19/17
Peer Reviewed By Date

PREPARATION BENCH SHEET

F710351

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710351-BLK1	Blank	0.5	50					
F710351-BLK2	Blank	0.5	50					
F710351-BS1	LCS	0.5	50	1705879	50			
F710351-BSD1	LCS Dup	0.5	50	1705879	50			
F710351-DUP1	Duplicate [1710458-01]	2.0436	50					
F710351-MS1	Matrix Spike [1710458-01]	2.0093	50	1705879	50			
F710351-MSD1	Matrix Spike Dup [1710458-01]	2.0268	50	1705879	50			

Standard ID(s): 1705879
Description: EFGS-PREPSPIKE1/2, plus Hg

Expiration: 02-Jan-18 00:00

Reagent ID(s):
 1703182
 1705610
 1705611
 1705679
 1705961

Description:
 25% Hydroxylamine-HCl working solution
 THg Washstation (0.5% BrCl)
 THg Dilute 1% BrCl
 Fisher Nitric Acid, Tracemetal Grade
 3% SnCl2 THg reductant

Expiration:
 24-Nov-17 00:00
 22-Jan-18 00:00
 15-Mar-19 00:00
 25-Mar-18 00:00

PREPARATION BENCH SHEET

F710351

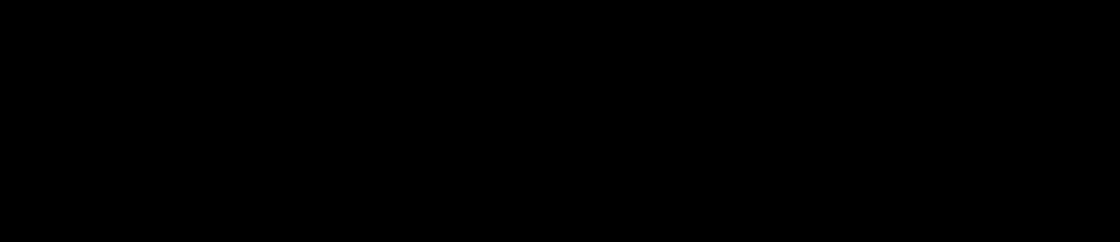
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710455-01	740-2017-10120001 EUUSBO2-00094885	2.04	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	
1710458-01	740-2017-10120002 EUUSBO2-00094886	2.0943	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	



Sample Preparation Review Checklist

Revision: 3
Effective: Dec. 5, 2013

Technician/Date: MMP 10/13/2017 Samples to lab: 1630 Batch #: F710357
 Upload/Date: MMP 10/13/2017 Reviewer/Date: _____

- EFGS Preparation Method**
- FGS-032 Co-APDC
 - FGS-052 Oven Digestion (Total Recoverable Metals) ICPMS AFS
 - FGS-058 Nitric Digestion ICPMS CVAFS
 - FGS-084 Modified Aqua Regia (Ag, Sb only)
 - FGS-108 Cr+6 Sediments/Tissues
 - FGS-109 RP
 - FGS-111 HF Bomb Digestion ICPMS CVAFS
 - FGS-141 Nitric Bomb Digestion ICPMS CVAFS
 - FGS-145 Oven Digestion (As, Se Speciation) As Se
 - FGS-146 Microwave Digestion (Nutraceuticals)
 - FGS-146 Microwave Digestion (CPSC-Metal)
 - FGS-146 Microwave Digestion (CPSC-Non-Metal/Paint)
 - FGS-149 Oven Digestion (Aqueous Nutraceuticals)
 - NA Other:

Initials	SOP Date	DOC Date
<u>MMP</u>	<u>2/4/2017</u>	<u>12/23/2016</u>

Comments: _____

Conditionally formatted training files located at:
 \\us34file\General and Admin\Quality Assurance\Training\Training Master
 (Contact QA for any problems regarding these training files.)

Analytes: Hg

- | | | | | |
|--|-------------------|------------|-----------------|----------|
| | Reviewer Initials | <u>MMP</u> | Tertiary Review | <u>R</u> |
|--|-------------------|------------|-----------------|----------|
1. Is any SOP/DOC expiring within one week of Submission Date? YES NO
 - Data cannot be reported without a current IDOC/CDOC. If YES, notify supervisor and technician immediately.**
 2. Check prep method YES
 - (a) For Ceuticals: Is correct Hg code being used in LIMS? ICPMS CV-AFS 70:30 N/A
 3. Compare sample ID with benchsheet YES N/A
 4. Verify time of submission? (if not met please explain in the comments) YES N/A
 - (a) Oven bomb - digestion start time before 14:00? YES N/A
 - (b) Microwave - submitted to the lab before 16:00? YES N/A
 5. Check for transcription errors from benchsheet YES
 - (a) Check and compare initial and final volumes YES N/A
 - (b) Check and compare mass YES N/A
 - (c) Has the number of pills been documented (benchsheet and LIMS)? YES N/A
 - (d) Benchsheet prep date MUST match actual prep date YES N/A
 6. Samples per Batch? **Check QC Requirements** ≤ 20 ≤ 10
 - (a) PBs per batch? 3 PBs 2 PB 1 PB
 - (b) BS, BS/BSD or CRM in batch? BS BS/BSD CRM
 - (c) MS/MSD in batch? YES N/A
 - (d) MD in batch? YES N/A
 - (e) Client specific WO #'s: _____ YES N/A
 - (f) Are there any client specific requests and/or alterations? YES N/A
 - Document: _____
 - (g) Correct LIMS spike ID included for BS, BS/BSD and/or MS/MSD? YES N/A
 - (h) Correct 'source' designated for MD/MS/MSD? YES N/A
 - (i) For EFGS-filtered samples, was a filtration blank included? YES N/A
 7. Are the samples appropriately spiked? YES N/A
 - (a) Is the spike and amount used appropriate and entered into LIMS? YES N/A
 - (b) For IDOCs, was there a spike witness? (initials must be in logbook) YES N/A
 - (c) Spikes added: YES N/A

NOTE: Due to LIMS software constraints, new LIMS IDs need to be created when multiple/ supplemental spikes are used. Enter new LIMS ID below and use table to list all spikes included in it.

Spike LIMS ID : 1705879

Spike Name	LIMS ID	μL	Spike Name	LIMS ID	μL
<u>Pyrophosphate</u>	<u>1703595</u>	<u>50</u>			
<u>Pyrophosphate</u>	<u>1703596</u>	<u>50</u>			
<u>T.Hg</u>	<u>1705876</u>	<u>50</u>			

PREPARATION BENCH SHEET

2000-2
10/18/17 BC
17

F710351

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710351-BLK1	Blank	0.5	50					50X -
F710351-BLK2	Blank	0.5	50					50X -
F710351-BS1	LCS	0.5	50	1705879	50			400X -
F710351-BSD1	LCS Dup	0.5	50	1705879	50			400X -
F710351-DUP1	Duplicate [1710458-01]	2.0436	50					50X -
F710351-MS1	Matrix Spike [1710458-01]	2.0093	50	1705879	50			400X -
F710351-MSD1	Matrix Spike Dup [1710458-01]	2.0268	50	1705879	50			400X -

Standard ID(s): 1705879
Description: EFGS-PREP SPIKE1/2, plus Hg

Expiration: 02-Jan-18 00:00

Reagent ID(s): 1705679
Description: Fisher Nitric Acid, Tracemetal Grade

Expiration: 15-Mar-19 00:00

50X = 1ml
400X = 125ul

1705610
1705611
1705961
1703182

PREPARATION BENCH SHEET

2600-2
10/17/17 BC

F710351

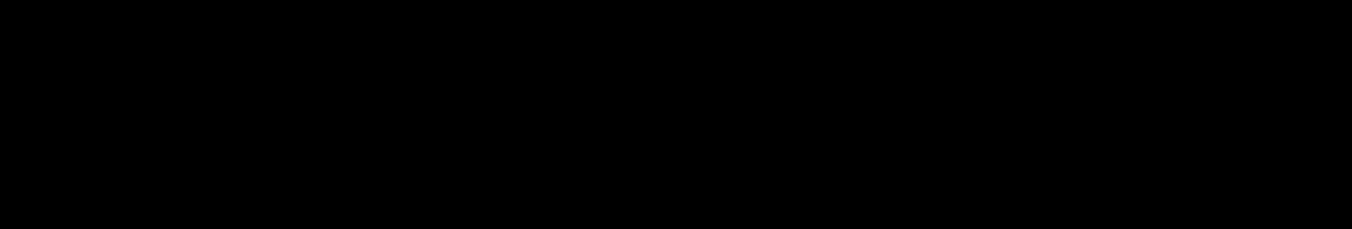
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710455-01	740-2017-10120001 EUUSBO2-00094885	2.04	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	SOX -
1710458-01	740-2017-10120002 EUUSBO2-00094886	2.0943	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	SOX -



Ceutical Digestions

Batch ~~TM~~ / (Hg (circle one)): F710349/35/334 Boiling Chip Lot # 2256A004

Batch continued on next page? Yes No

1° Tech.: MMR 2° Tech.: NA Date/Time In: 10/13/2017 1630

Date/Time Out: 10/14/2017 1030 by Timer

Spiked By: MMR Spike Witness (SW): W

Final Vol. (mL)/Initials/Date:

Balance ID/Cal.?(Y/N): 90 / 10/13/2017

50 MMR 10/16/2017

Digestion: Oven ID: OVN-02 Other ID: _____

Vial Type: 50 mL Centrifuge Tube Teflon

Analysis: ICP-MS CV-AFS

LC-ICP-MS Other: _____

Thermometer ID: 1312060130 Initial: Temp. (°C): 160 / 157.1 / 157.4
target raw corrected

Final: Temp. (°C): 160 / TIMER
target raw corrected

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (<input checked="" type="checkbox"/> g <input type="checkbox"/> mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
1	NA	X047	F710349-BUK1	D	0.5432	Ben Chips (BC)	/	
2	NA	X114	F710349-BUK2	D	0.6464	BC	/	
3	N4106	T11001	F710349-B51	D	0.6977	BC	/	
4	X196	X066	F710349-BSD1	D	0.7932	BC	/	
5	NA	N428	M10375-03	A	1.0572	Powder (P)	/	
6	NA	X1106	M10375-03DUP1	A	1.0316	P	/	
7	NA	X069	M10375-03MS112	A	1.0054	P	/	
8	N459	N380	M10375-03MSD1	A	1.0447	P	/	
9	X142	N378	M10443-01	A	1.2988	Food (F)	/	

Initials: MMR

Spike Name	SW	Volume (µL)	LIMS ID	Pipette ID	Cal. Date
1 Prep Spike 1	<input checked="" type="checkbox"/>	50	1703595	512664	10/11/2017
2 Prep Spike 2	<input checked="" type="checkbox"/>	50	1703596		
TH ₂	<input checked="" type="checkbox"/>	50	1705878		
	<input type="checkbox"/>				
	<input type="checkbox"/>				

Preparation Method SOP: EFGS-141		
Reagent	Volume (mL)	LIMS ID
HNO ₃	7.5	1705679

1 Combined Spike ID: _____ ; Batches: F710334/349/351
 2 Combined Spike ID: _____ ; Batches: _____

Batch continued on next page? Yes No

Ceutical Digestions

Batch (TM / Hg) (circle one): F710334/351

Boiling Chip Lot # 27569094

Batch continued on next page? Yes No

1° Tech.: _____ 2° Tech.: _____ Date/Time In: _____

Date/Time Out: _____

Spiked By: _____ Spike Witness (SW): _____

Final Vol. (mL)/Initials/Date: _____

Balance ID/Cal.? (Y/N): _____

Digestion: Oven ID: _____ Other ID: _____

Vial Type: 50 mL Centrifuge Tube Teflon

Analysis: ICP-MS CV-AFS

LC-ICP-MS Other: _____

Thermometer ID: _____ Initial: Temp. (°C): _____

target raw corrected

Final: Temp. (°C): _____

target raw corrected

See Pg 197

MMP 10/13/2017

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (<input type="checkbox"/> g <input type="checkbox"/> mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
1	NA	TH016	F710334-BLK1	D	0.6022	Beal Chips (BL)	/	
2	NA	X073	F710334-BLK2	D	0.9-0.6963	BC	/	
3	NA	X075	F710334-BS1	D	0.6246	BC	/	
4	NA	N442	F710334-BSD1	D	0.5916	BC	/	
5	NA	X117	M10456-01	A	2.0943	Powder (P)	/	
6	N382	TH031	M10456-01DUP1	A	2.0436	P	/	
7	NA	X168	M10456-01MS1	A	2.0093	P	/	
8	NA	TH058	M10456-01MSD1	A	2.0268	P	/	
9	NA	N355	M10457-01	A	0.5502	0.1105	/	

See Pg 197

Initials: MMP

Spike Name	SW	Volume (µL)	LIMS ID	Pipette ID	Cal. Date
	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				

Preparation Method SOP: EFGS-		
Reagent	Volume (mL)	LIMS ID

MMP 10/13/2017

1 Combined Spike ID: _____ ; Batches: _____

2 Combined Spike ID: _____ ; Batches: _____

Batch continued on next page? Yes No

Ceutical Digestions

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (□g □mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
10	NA	X111	1710452-01MSDZ	A	0.6656	O	/	
11	NA	N432	1710452-01MSDZ	A	0.5821	O	/	
12	X165	X022	1709717-01RE1	B	1.2623	Food (F)	/	
13	NA	X181	1709717-02RE1	B	1.1042	F	/	
14	TH058	X179	1709717-03RE1	B	1.0494	F	/	Dry MRP 10/16/2017
15	NA	X006	1709717-04RE1	B	1.0970	F	/	
16	NA	N379	1709717-05	B	1.0420	F	/	
17	NA	N367	1709717-06RE1	B	1.0867	F	/	
18	NA	N424	1709717-07RE1	B	1.0337	F	/	
19	NA	N365	1709717-08RE1	B	1.1661	F	/	
20	TH036	TH056	1709761-06RE1	A	1.1411	1 cap.	/	
21	X188	N387	1709761-01RE1	A	0.9479	1 cap.	/	
22	NA	N390	1709778-01RE1	A	0.8742	1 cap.	/	
23	NA	TH021	1709780-03RE1	B	1.2636	F	/	
24	NA	X174	1710453-01	A	0.5158	Gel	/	Dry MRP 10/16/2017
25	NA	N459	1710455-01	A	2.0400	P	/	
26	NA	N416	1710459-01	A	0.5450	Cream (C)	/	
27	NA	X105	1710459-02	A	0.6186	C	/	
28	X192	TH005	1710459-03	A	0.5606	MRP 10/13/2017 Gel	/	
29	NA	X090	1710461-01	A	0.5830	C	/	
30								
31								
32								
33								
34								

Initials: MP

Density by EFGS-019

Required? Yes No

Batch ID: _____

Density = [(D-C)/B]

A: Sample ID / Flask ID	B: Volume (mL)	C: Flask mass (g)	D: Flask + sample (g)	Density (g/mL)
/				
/				
/				
/				

ANALYSIS SEQUENCE

QUALITY ASSURANCE
PEER-REVIEWED

7J18021

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R* 10/10/17
Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18021-IBL1 ✓	QC	1			
7J18021-IBL2 ✓	QC	2			
7J18021-IBL3 ✓	QC	3			
7J18021-CAL1 ✓	QC	4	1704505 ✓		
7J18021-CAL2 ✓	QC	5	1704506 ✓		
7J18021-CAL3 ✓	QC	6	1704507 ✓		
7J18021-CAL4 ✓	QC	7	1704508 ✓		
7J18021-CAL5 ✓	QC	8	1704509 ✓		
7J18021-ICV1 ✓	QC	9	1705628 ✓		
F710376-BLK1 ✓	QC	10			
F710376-BLK2 ✓	QC	11			
F710376-BLK3 ✓	QC	12			
F710376-BLK4 ✓	QC	13			
F710376-BLK5 ✓	QC	14			
F710376-BLK6 ✓	QC	15			
1710146-01 ✓	Hg-CVAFS-W-1631-WI DNR	16			
1710146-02 ✓	Hg-CVAFS-W-1631-WI DNR	17			
1710329-01 ✓	Hg-CVAFS-W-1631-WI DNR	18			
1710329-02 ✓	Hg-CVAFS-W-1631-WI DNR	19			
7J18021-CCV1 ✓	QC	20	1705628 ✓		
7J18021-CCB1 ✓	QC	21			
F710376-BS1 ✓	QC	22			
F710376-BSD1 ✓	QC	23			
F710376-DUP1 ✓	QC	24			
F710376-MS1 ✓	QC	25			
F710376-MSD1 ✓	QC	26			
7J18021-CCV2 ✓	QC	27	1705628 ✓		
7J18021-CCB2 ✓	QC	28			

Becky 10/18/17 *Becky* 10/18/17
 Samples Loaded By Date Data Processed By Date

10/17/17
2:00

PREPARATION BENCH SHEET

F710376

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710376-BLK1	Blank	100	101					Source: 1710146-03
F710376-BLK2	Blank	100	101					Source: 1710146-03
F710376-BLK3	Blank	100	101					Source: 1710146-03
F710376-BLK4	Blank	100	101					Source: 1710329-03
F710376-BLK5	Blank	100	101					Source: 1710329-03
F710376-BLK6	Blank	100	101					Source: 1710329-03
F710376-BS1	LCS	50	50.5	1705054	100			
F710376-BSD1	LCS Dup	50	50.5	1705054	100			
F710376-DUP1	Duplicate [1710329-01] ✓	100	101					
F710376-MS1	Matrix Spike [1710329-01] ✓	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL ✓
F710376-MSD1	Matrix Spike Dup [1710329-01] ✓	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL ✓

<u>Standard ID(s):</u>	<u>Description:</u>
1704422	THg 10ng/mL Calibration Standard
1705054	Nist 1641D 200X

<u>Expiration:</u>
21-Oct-17 00:00
21-Aug-18 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705580	0.2 N BRCL SEPTEMBER 2017	14-Mar-18 00:00
1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
1705961	3% SnCl2 THg reductant	25-Mar-18 00:00

PREPARATION BENCH SHEET

F710376

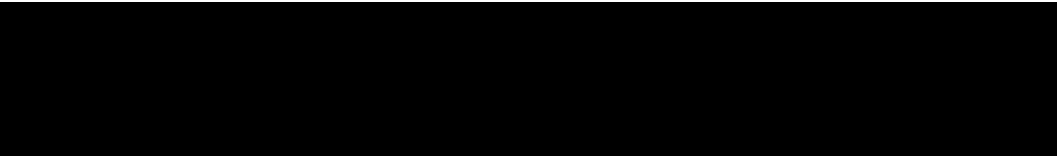
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710146-01	1710047-03 Monthly Effluent Mercury	100	101	-	-	-	Preservation Blank Created	
1710146-02	1710047-04 Monthly Effluent Mercury Blank	100	101	-	-	-	Preservation Blank Created	
1710329-01	1710150-01 Johnson Controls Outfall-Hg	100	101	-	-	-	Preservation Blank created	
1710329-02	1710150-02 Johnson Controls Outfall-Hg (Blank)	100	101	-	-	-	Preservation Blank created	



PREPARATION BENCH SHEET

2000-2
10/17/17 BC

F710376

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710376-BLK1	Blank	100	101					1710146-013 IX
F710376-BLK2	Blank	100	101					IX
F710376-BLK3	Blank	100	101					IX
F710376-BLK4	Blank	100	101					1710329-013 IX
F710376-BLK5	Blank	100	101					IX
F710376-BLK6	Blank	100	101					IX
F710376-BLK7	Blank	100	101					1710329
F710376-BLK8	Blank	100	101					
F710376-BLK9	Blank	100	101					
F710376-BS1	LCS	100	101	1705054	100			IX
F710376-BSD1	LCS Dup	100	101	1705054	100			IX
F710376-DUP1	Duplicate 1710329-01	100	101					IX
F710376-MS1	Matrix Spike 1710329-01	100	101	1704422	25			IX
F710376-MSD1	Matrix Spike Dup 1710329-01	100	101	1704422	25			IX

Standard ID(s): Description: Expiration:

IX = 50 mL

1705610
1705611
1705461
1703102

PREPARATION BENCH SHEET

2600-2

10/17/17 BC

F710376

Eurofins Frontier Global Sciences, Inc.

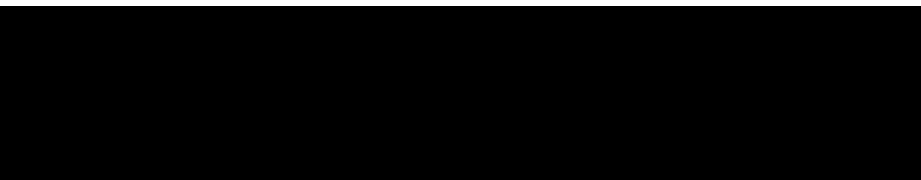
Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710146-01	1710047-03 Monthly Effluent Mercury	100	101	-	-	-	Preservation Blank Created	IX
1710146-02	1710047-04 Monthly Effluent Mercury Blank	100	101	-	-	-	Preservation Blank Created	IX
1710329-01	1710150-01 Johnson Controls Outfall-Hg	100	101	-	-	-	Preservation Blank created	IX
1710329-02	1710150-02 Johnson Controls Outfall-Hg (Blank)	100	101	-	-	-	Preservation Blank created	IX
1710388-01	1710188-01 Mayfair Semi-Annual	100	101	-	-	-	Preservation Blank Created	
1710388-02	1710188-02 Mayfair Semi-Annual - Blank	100	101	-	-	-	Preservation Blank Created	

010302
|
030206
|
010602
|
|



Total Mercury Preservation Logbook

cop 10/4/17

Initial preservation and/or verification

Technician: CSP Date: 10/4/17 Time Completed: 1730

Work Orders: ~~1710142~~ 1710142
1710143, 1710146

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1705580

Pipette SN: 507631

Cal. Date: 10/4/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710143-01A	300	3.00	y			
1710143-02A	300	3.00	y			
1710143-03A	300	3.00	y			
1710143-04A	300	3.00	y			
1710143-05A	300	3.00	y			
1710143-06A	300	3.00	y			
1710143-07A	300	3.00	y			
1710142-01A	300	3.00	y			
1710142-02A	300	3.00	y			
1710142-03A	300	3.00	y			
1710142-04A	300	3.00	y			
1710142-05B	10	10	y			
1710142-06A	300	3.00	y			
1710146-01A	300	3.00	y			
1710146-02A	300	3.00	y			
1710146-03A	300	3.00	y			
CSP 10/4/17						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
10/5/17 DM

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 10/11/17 Time Completed: 19:00

Work Orders: 1710328
1710324, 1710329, 1710276

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1705580

Pipette SN: 307631

Cal. Date: 10/9/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710328-24A	250	2.50	Y			
1710324-01A	250	2.50	Y			
1710329-01A	300	3.00	Y			
1710329-02A	300	3.00	Y			
1710329-03A	300	3.00	Y			
1710276-01A	600	6.00	Y			
1710276-02A	600	6.00+6.00	Y			
1710276-03A	600	6.00	Y			
LM 10/11/17						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J18019, 7J18020, 7J18021
Reviewer: 0 <i>PL 10/18/17</i>	Dataset ID(s): THg26002-171017-1
Date: 10/18/2017	WO (s) #: 0
Batch #(s): F710376, F710215, F710291, F710351	0

Analyst Initials BC Reviewer Initials PL 10/18/17

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: _____
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: _____
- (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
- (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
- (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
- (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J18019, 7J18020, 7J18021
Reviewer: 0 <i>R 10/10/17</i>	Dataset ID(s): THg26002-171017-1
Date: 10/18/2017	WO (s) #: 0
Batch #(s): F710376, F710215, F710291, F710351	0

Analyst Initials BC **Reviewer Initials** R 10/10/17

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
- Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs**
- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/11/17, 1/27/17 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 7/28/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 7/28/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709620

PO#

C012505850

October 21, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709620

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October 21, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 13:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MMMC-01_17MT001_091817_MUM_01_WB	1709620-01	Tissue	18-Sep-17 09:00	22-Sep-17 10:25
MMMC-01_17MT001_092017_MUM_02_WB	1709620-02	Tissue	20-Sep-17 10:25	22-Sep-17 10:25
MMMC-01_17MT004_092017_MUM_03_WB	1709620-03	Tissue	20-Sep-17 10:08	22-Sep-17 10:25
MMMC-01_17MT004_092017_MUM_04_WB	1709620-04	Tissue	20-Sep-17 10:08	22-Sep-17 10:25
MMMC-01_17MT003_092017_MUM_06_WB	1709620-06	Tissue	20-Sep-17 09:57	22-Sep-17 10:25
MMMC-01_17MT003_092017_MUM_07_WB	1709620-07	Tissue	20-Sep-17 09:57	22-Sep-17 10:25
MMMC-01_17MT003_092017_MUM_08_WB	1709620-08	Tissue	20-Sep-17 09:57	22-Sep-17 10:25
MMMC-01_17MT003_092017_MUM_09_WB	1709620-09	Tissue	20-Sep-17 09:57	22-Sep-17 10:25
MMMC-01_17MT003_092017_MUM_10_WB	1709620-10	Tissue	20-Sep-17 09:57	22-Sep-17 10:25
MMMC-01_17MT003_092017_MUM_11_WB	1709620-11	Tissue	20-Sep-17 09:57	22-Sep-17 10:25
MMMC-01_17MT003_092017_MUM_12_WB	1709620-12	Tissue	20-Sep-17 09:57	22-Sep-17 10:25
MMMC-01_17MT003_092017_MUM_13_WB	1709620-13	Tissue	20-Sep-17 09:57	22-Sep-17 10:25
MMMC-01_17MT003_092017_MUM_14_WB	1709620-14	Tissue	20-Sep-17 09:57	22-Sep-17 10:25
MMMC-01_17MT003_092017_MUM_15_WB	1709620-15	Tissue	20-Sep-17 09:57	22-Sep-17 10:25
MMMC-01_17MT003_092017_MUM_16_WB	1709620-16	Tissue	20-Sep-17 09:57	22-Sep-17 10:25
MMMC-01_17MT003_092017_MUM_17_WB	1709620-17	Tissue	20-Sep-17 09:57	22-Sep-17 10:25
MMMC-01_17MT003_092017_MUM_18_WB	1709620-18	Tissue	20-Sep-17 09:57	22-Sep-17 10:25
MMMC-01_17MT003_092017_MUM_19_WB	1709620-19	Tissue	20-Sep-17 09:57	22-Sep-17 10:25
MMMC-01_17MT003_092017_MUM_20_WB	1709620-20	Tissue	20-Sep-17 09:57	22-Sep-17 10:25

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 13:58

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM . The samples were received intact, on-ice within two sealed coolers at -27.1 and -21.6 degrees Celsius.

Client requested Lipids Analysis by NOAA1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

EFGS was unable to locate sample 1709620-05 after the sample was homogenized. Client was notified and the sample was cancelled in this work order. The QA group has started an investigation and will release a report (IR-2017-057) once they are complete.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches; F710215 and F710226. Sample 1709620-06 was used as the QC source in batch F710226. These samples were analyzed in two sequences; 7J18020 and 7J10017.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 13:58

duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

Client: AMSC Foster Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/23/17 Labeled By: CSJ

Project: _____

Received By: LM Label Verified By: BC

of Coolers Received: 2 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>1709620</u>	CF: <u>10.1 °C</u>	Date/time: <u>9/22/17 10:25</u>	By: <u>LM</u>
Cooler 1: <u>27.2°C</u>	w/ CF: <u>27.12°C</u>	Cooler 4: _____ °C	w/ CF: _____ °C
Cooler 2: <u>21.73°C</u>	w/ CF: <u>21.63°C</u>	Cooler 5: _____ °C	w/ CF: _____ °C
Cooler 3: _____ °C	w/ CF: _____ °C	Cooler 6: _____ °C	w/ CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	Y	
Preservation type:	N	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4846 Cooler 2: 7878 1037 1584

1709620



1709620



Environmental Analysis Request/Chain of Custody

Client: Armed Forces Wheeler 7511 Congress St Suite 200 Portland, ME 04101		Matrix		Analyses Requested												For Lab Use Only						
Project Name#: USDC Penobscot		PN # 3616166052_04A_055		<input type="checkbox"/> Soil	<input type="checkbox"/> Sediment	<input type="checkbox"/> Tissue	<input type="checkbox"/> Foliage	<input type="checkbox"/> Ground	<input type="checkbox"/> Surface	Preservation Codes												SF # _____
Project Manager: Rod Pendleton		P.O. # CD12505850		<input type="checkbox"/> Water	<input type="checkbox"/> NPDES	<input type="checkbox"/> Other	<input type="checkbox"/> NPDES	<input type="checkbox"/> Surface	<input type="checkbox"/> Tissue													SCR # _____
Sampler: JB		PWSID # _____		Composite		Total # of Containers		Total # of Containers														
Phone # _____		Quote # _____		Soil		Water		Other														
State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														
				Other		Tissue		Total # of Containers														
				Soil		Water		Other														
				Sediment		Foliage		Ground														
				NPDES		Surface		Tissue														



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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 13:58

MMMC-01_17MT001_091817_MUM_01_WB
1709620-01

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	51.4	0.441	3.94	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	
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**MMMC-01_17MT001_092017_MUM_02_WB
1709620-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	137	0.419	3.75	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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**MMMC-01_17MT004_092017_MUM_03_WB
1709620-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	173	0.413	3.69	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	



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**MMMC-01_17MT004_092017_MUM_04_WB
1709620-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	109	0.429	3.83	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	



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MMMC-01_17MT003_092017_MUM_06_WB
1709620-06

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	109	1.74	15.5	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	



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**MMMC-01_17MT003_092017_MUM_07_WB
1709620-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	122	0.415	3.70	ng/g	100	F710215	04-Oct-17	7J18020	18-Oct-17	EPA 1631B	

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**MMMC-01_17MT003_092017_MUM_08_WB
1709620-08**

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	107	1.70	15.2	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	



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**MMMC-01_17MT003_092017_MUM_09_WB
1709620-09**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	88.2	1.70	15.2	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	



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**MMMC-01_17MT003_092017_MUM_10_WB
1709620-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	207	1.59	14.2	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	



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**MMMC-01_17MT003_092017_MUM_11_WB
1709620-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	94.4	1.74	15.6	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	

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**MMMC-01_17MT003_092017_MUM_12_WB
1709620-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	73.2	1.69	15.1	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	

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Amy Goodall, Project Manager



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**MMMC-01_17MT003_092017_MUM_13_WB
1709620-13**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	104	1.76	15.7	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	

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**MMMC-01_17MT003_092017_MUM_14_WB
1709620-14**

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	150	1.78	15.9	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	

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**MMMC-01_17MT003_092017_MUM_15_WB
1709620-15**

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	145	1.74	15.5	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	



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**MMMC-01_17MT003_092017_MUM_16_WB
1709620-16**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	72.4	1.70	15.2	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	

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**MMMC-01_17MT003_092017_MUM_17_WB
1709620-17**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	136	1.53	13.7	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	

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**MMMC-01_17MT003_092017_MUM_18_WB
1709620-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	112	1.57	14.0	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	



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**MMMC-01_17MT003_092017_MUM_19_WB
1709620-19**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	100	1.58	14.1	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	



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**MMMC-01_17MT003_092017_MUM_20_WB
1709620-20**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	256	1.64	14.6	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	

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Project Manager: Denise King

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J10017 - F710226											
Cal Standard (7J10017-CAL1)					Prepared & Analyzed: 09-Oct-17						
Mercury	0.513	-		ng/L	0.50100		102				
Cal Standard (7J10017-CAL2)					Prepared & Analyzed: 09-Oct-17						
Mercury	1.034	-		ng/L	1.0020		103				
Cal Standard (7J10017-CAL3)					Prepared & Analyzed: 09-Oct-17						
Mercury	5.002	-		ng/L	5.0100		99.8				
Cal Standard (7J10017-CAL4)					Prepared & Analyzed: 09-Oct-17						
Mercury	19.38	-		ng/L	20.040		96.7				
Cal Standard (7J10017-CAL5)					Prepared & Analyzed: 09-Oct-17						
Mercury	38.87	-		ng/L	40.080		97.0				
Calibration Blank (7J10017-CCB1)					Prepared & Analyzed: 09-Oct-17						
Mercury	0.043	-		ng/L							
Calibration Blank (7J10017-CCB2)					Prepared & Analyzed: 09-Oct-17						
Mercury	0.018	-		ng/L							
Calibration Blank (7J10017-CCB3)					Prepared & Analyzed: 09-Oct-17						
Mercury	0.027	-		ng/L							
Calibration Blank (7J10017-CCB4)					Prepared & Analyzed: 09-Oct-17						
Mercury	0.074	-		ng/L							
Calibration Blank (7J10017-CCB5)					Prepared & Analyzed: 09-Oct-17						
Mercury	0.084	-		ng/L							

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J10017 - F710226

Calibration Blank (7J10017-CCB6)												Prepared & Analyzed: 09-Oct-17
Mercury	0.057	-		ng/L								
Calibration Blank (7J10017-CCB7)												Prepared & Analyzed: 09-Oct-17
Mercury	0.073	-		ng/L								
Calibration Blank (7J10017-CCB8)												Prepared & Analyzed: 09-Oct-17
Mercury	0.083	-		ng/L								
Calibration Blank (7J10017-CCB9)												Prepared & Analyzed: 09-Oct-17
Mercury	0.089	-		ng/L								
Calibration Blank (7J10017-CCBA)												Prepared & Analyzed: 09-Oct-17
Mercury	0.051	-		ng/L								
Calibration Check (7J10017-CCV1)												Prepared & Analyzed: 09-Oct-17
Mercury	4.763	-		ng/L	5.0000		95.3	77-123				
Calibration Check (7J10017-CCV2)												Prepared & Analyzed: 09-Oct-17
Mercury	4.881	-		ng/L	5.0000		97.6	77-123				
Calibration Check (7J10017-CCV3)												Prepared & Analyzed: 09-Oct-17
Mercury	4.840	-		ng/L	5.0000		96.8	77-123				
Calibration Check (7J10017-CCV4)												Prepared & Analyzed: 09-Oct-17
Mercury	4.897	-		ng/L	5.0000		97.9	77-123				
Calibration Check (7J10017-CCV5)												Prepared & Analyzed: 09-Oct-17
Mercury	4.677	-		ng/L	5.0000		93.5	77-123				

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J10017 - F710226

Calibration Check (7J10017-CCV6)												Prepared & Analyzed: 09-Oct-17	
Mercury	4.825	-		ng/L	5.0000		96.5	77-123					
Calibration Check (7J10017-CCV7)												Prepared & Analyzed: 09-Oct-17	
Mercury	4.702	-		ng/L	5.0000		94.0	77-123					
Calibration Check (7J10017-CCV8)												Prepared & Analyzed: 09-Oct-17	
Mercury	4.858	-		ng/L	5.0000		97.2	77-123					
Calibration Check (7J10017-CCV9)												Prepared & Analyzed: 09-Oct-17	
Mercury	5.031	-		ng/L	5.0000		101	77-123					
Calibration Check (7J10017-CCVA)												Prepared & Analyzed: 09-Oct-17	
Mercury	4.957	-		ng/L	5.0000		99.1	77-123					
Instrument Blank (7J10017-IBL1)												Prepared & Analyzed: 09-Oct-17	
Mercury	ND	0.004	0.040	ng/L							U		
Instrument Blank (7J10017-IBL2)												Prepared & Analyzed: 09-Oct-17	
Mercury	ND	0.004	0.040	ng/L							U		
Instrument Blank (7J10017-IBL3)												Prepared & Analyzed: 09-Oct-17	
Mercury	ND	0.004	0.040	ng/L							U		
Initial Cal Check (7J10017-ICV1)												Prepared & Analyzed: 09-Oct-17	
Mercury	4.986	-		ng/L	5.0000		99.7	79-121					

Batch 7J18020 - F710291

Cal Standard (7J18020-CAL1)												Prepared: 17-Oct-17 Analyzed: 18-Oct-17	
Mercury	0.498	-		ng/L	0.50100		99.5						

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21-Oct-17 13:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J18020 - F710291

Cal Standard (7J18020-CAL2)						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	1.042	-		ng/L	1.0020		104				
Cal Standard (7J18020-CAL3)						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	5.049	-		ng/L	5.0100		101				
Cal Standard (7J18020-CAL4)						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	19.83	-		ng/L	20.040		99.0				
Cal Standard (7J18020-CAL5)						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	38.38	-		ng/L	40.080		95.8				
Calibration Blank (7J18020-CCB1)						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	0.036	-		ng/L							
Calibration Blank (7J18020-CCB2)						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	0.051	-		ng/L							
Calibration Blank (7J18020-CCB3)						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	0.070	-		ng/L							
Calibration Blank (7J18020-CCB4)						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	0.053	-		ng/L							
Calibration Blank (7J18020-CCB5)						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	0.145	-		ng/L							
Calibration Blank (7J18020-CCB6)						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	0.085	-		ng/L							

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 13:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J18020 - F710291

Calibration Blank (7J18020-CCB7)											
						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	0.122	-		ng/L							
Calibration Blank (7J18020-CCB8)											
						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	0.155	-		ng/L							
Calibration Blank (7J18020-CCB9)											
						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	0.136	-		ng/L							
Calibration Check (7J18020-CCV1)											
						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	4.895	-		ng/L	5.0000		97.9	77-123			
Calibration Check (7J18020-CCV2)											
						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	5.022	-		ng/L	5.0000		100	77-123			
Calibration Check (7J18020-CCV3)											
						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	4.868	-		ng/L	5.0000		97.4	77-123			
Calibration Check (7J18020-CCV4)											
						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	5.199	-		ng/L	5.0000		104	77-123			
Calibration Check (7J18020-CCV5)											
						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	5.228	-		ng/L	5.0000		105	77-123			
Calibration Check (7J18020-CCV6)											
						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	4.961	-		ng/L	5.0000		99.2	77-123			
Calibration Check (7J18020-CCV7)											
						Prepared: 17-Oct-17 Analyzed: 18-Oct-17					
Mercury	5.106	-		ng/L	5.0000		102	77-123			

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271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 13:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J18020 - F710291

Calibration Check (7J18020-CCV8)											
					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.130	-		ng/L	5.0000		103	77-123			
Calibration Check (7J18020-CCV9)											
					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.090	-		ng/L	5.0000		102	77-123			
Instrument Blank (7J18020-IBL1)											
					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J18020-IBL2)											
					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7J18020-IBL3)											
					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7J18020-ICV1)											
					Prepared: 17-Oct-17 Analyzed: 18-Oct-17						
Mercury	5.020	-		ng/L	5.0000		100	79-121			

Batch F710215 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710215-BLK1)											
					Prepared: 04-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.133	0.090	0.800	ng/g							J
Blank (F710215-BLK2)											
					Prepared: 04-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.097	0.090	0.800	ng/g							J
Blank (F710215-BLK3)											
					Prepared: 04-Oct-17 Analyzed: 18-Oct-17						
Mercury	0.189	0.090	0.800	ng/g							J

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 13:58
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710215 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710215-BLK4) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	ND	0.084	0.752	ng/g							F-03, U
Blank (F710215-BLK5) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	ND	0.087	0.775	ng/g							F-03, U
Blank (F710215-BLK6) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	ND	0.081	0.725	ng/g							F-03, U
Blank (F710215-BLK7) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	ND	0.089	0.794	ng/g							F-03, U
LCS (F710215-BS1) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	7.846	0.090	0.800	ng/g	8.0160		97.9	75-125			
LCS (F710215-BS2) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	343.0	3.57	31.8	ng/g	373.70		91.8	75-125			
LCS Dup (F710215-BSD1) Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	8.280	0.090	0.800	ng/g	8.0160		103	75-125	5.38	24	
Duplicate (F710215-DUP1) Source: 1709619-06 Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	72.08	0.406	3.62	ng/g		76.54			6.00	24	
Matrix Spike (F710215-MS1) Source: 1709619-06 Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	408.8	1.62	14.5	ng/g	362.32	76.54	91.7	71-125			
Matrix Spike (F710215-MS2) Source: 1709619-07 Prepared: 04-Oct-17 Analyzed: 18-Oct-17											
Mercury	424.3	1.68	15.0	ng/g	374.53	71.45	94.2	71-125			

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710215 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F710215-MSD1)		Source: 1709619-06			Prepared: 04-Oct-17 Analyzed: 18-Oct-17						
Mercury	425.3	1.68	15.0	ng/g	375.94	76.54	92.8	71-125	1.15	24	
Matrix Spike Dup (F710215-MSD2)		Source: 1709619-07			Prepared: 04-Oct-17 Analyzed: 18-Oct-17						
Mercury	440.7	1.64	14.6	ng/g	364.96	71.45	101	71-125	7.13	24	

Batch F710226 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710226-BLK1)		Prepared: 05-Oct-17 Analyzed: 09-Oct-17									
Mercury	0.177	0.090	0.800	ng/g							J
Blank (F710226-BLK2)		Prepared: 05-Oct-17 Analyzed: 09-Oct-17									
Mercury	ND	0.090	0.800	ng/g							U
Blank (F710226-BLK3)		Prepared: 05-Oct-17 Analyzed: 09-Oct-17									
Mercury	ND	0.090	0.800	ng/g							U
Blank (F710226-BLK4)		Prepared: 05-Oct-17 Analyzed: 09-Oct-17									
Mercury	ND	0.090	0.800	ng/g							F-03, U
Blank (F710226-BLK5)		Prepared: 05-Oct-17 Analyzed: 09-Oct-17									
Mercury	ND	0.090	0.800	ng/g							F-03, U
Blank (F710226-BLK6)		Prepared: 05-Oct-17 Analyzed: 09-Oct-17									
Mercury	ND	0.090	0.800	ng/g							F-03, U
Blank (F710226-BLK7)		Prepared: 05-Oct-17 Analyzed: 09-Oct-17									
Mercury	ND	0.090	0.800	ng/g							F-03, U

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.055 Project Manager: Denise King	Reported: 21-Oct-17 13:58
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710226 - EFGS-011 Nitric/Sulfuric Hg Digestion

LCS (F710226-BS1)					Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	8.256	0.090	0.800	ng/g	8.0160		103	75-125			
LCS (F710226-BS2)					Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	322.0	3.58	32.0	ng/g	373.70		86.2	75-125			
LCS Dup (F710226-BSD1)					Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	8.212	0.090	0.800	ng/g	8.0160		102	75-125	0.529	24	
Duplicate (F710226-DUP1)					Source: 1709620-06 Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	120.1	1.62	14.5	ng/g		109.1			9.63	24	
Matrix Spike (F710226-MS1)					Source: 1709620-06 Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	481.9	1.61	14.4	ng/g	359.71	109.1	104	71-125			
Matrix Spike (F710226-MS2)					Source: 1709621-02 Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	365.8	1.72	15.4	ng/g	384.62	20.14	89.9	71-125			
Matrix Spike Dup (F710226-MSD1)					Source: 1709620-06 Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	488.1	1.71	15.3	ng/g	381.68	109.1	99.3	71-125	4.27	24	
Matrix Spike Dup (F710226-MSD2)					Source: 1709621-02 Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	353.8	1.63	14.5	ng/g	363.64	20.14	91.7	71-125	2.06	24	

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AMEC Foster Wheeler
271 Mill Road
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Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
21-Oct-17 13:58

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- AD This matrix duplicate is an analytical duplicate.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26002-171017-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 18, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7J18019, 7J18020, 7J18021

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	97.99 units	195.98	89.05 units	178.11	99.7 %Rec
SEQ-CAL2	1	1.00 ng/L	195.16 units	195.16	186.22 units	186.22	104.2 %Rec
SEQ-CAL3	1	5.00 ng/L	910.96 units	182.19	902.02 units	180.40	101.0 %Rec
SEQ-CAL4	1	20.00 ng/L	3552.62 units	177.63	3543.68 units	177.18	99.2 %Rec
SEQ-CAL5	1	40.00 ng/L	6865.94 units	171.65	6857.00 units	171.43	95.9 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 178.67 +/- 5.36 3.0% RSD 184.52

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	8.94 units	±1.62	0.05 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	6	-0.002 ng/L	±0.008
BLK	2	3	1.747 ng/L	±0.575
BLK	3	3	2.840 ng/L	±0.886
BLK	4	2	7.802 ng/L	±3.016
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: p 10/19/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	CAL	SEQ-IBL1	1	10/18/2017 8:48:34	87447-1.RAW	8:48:34 AM	10.80			1.9	0.010	0.010	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	10/18/2017 8:52:43	87448-1.RAW	8:52:43 AM	8.09			-0.8	-0.005	-0.005	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	10/18/2017 8:56:51	87449-1.RAW	8:56:51 AM	7.92			-1.0	-0.006	-0.006	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	10/18/2017 9:01:00	87450-1.RAW	9:01:00 AM	97.99			89.1	0.498	0.498	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	10/18/2017 9:05:08	87451-1.RAW	9:05:08 AM	195.16			186.2	1.042	1.042	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	10/18/2017 9:09:17	87452-1.RAW	9:09:17 AM	910.96			902.0	5.049	5.049	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	10/18/2017 9:13:25	87453-1.RAW	9:13:25 AM	3552.62			3543.7	19.834	19.834	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	10/18/2017 9:17:34	87454-1.RAW	9:17:34 AM	6865.94			6857.0	38.378	38.378	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	10/18/2017 9:21:42	87455-1.RAW	9:21:42 AM	905.88			896.9	5.020	5.020	ng/L	
Hg2600-3	BC	SAM	WS	1	10/18/2017 9:39:08	87456-1.RAW	9:39:08 AM	46.72		x	37.8	0.211	0.000	ng/L	
Hg2600-3	BC	BLK	F710376-BLK1	1	10/18/2017 9:43:17	87457-1.RAW	9:43:17 AM	8.83	1	x	-0.1	-0.001	-0.001	ng/L	
Hg2600-3	BC	BLK	F710376-BLK2	1	10/18/2017 9:47:25	87458-1.RAW	9:47:25 AM	8.79	1	x	-0.1	-0.001	-0.001	ng/L	
Hg2600-3	BC	BLK	F710376-BLK3	1	10/18/2017 9:51:34	87459-1.RAW	9:51:34 AM	10.89	1	x	2.0	0.011	0.011	ng/L	
Hg2600-3	BC	BLK	F710376-BLK4	1	10/18/2017 9:55:42	87460-1.RAW	9:55:42 AM	6.34	1	x	-2.6	-0.015	-0.015	ng/L	
Hg2600-3	BC	BLK	F710376-BLK5	1	10/18/2017 9:59:51	87461-1.RAW	9:59:51 AM	8.60	1	x	-0.3	-0.002	-0.002	ng/L	
Hg2600-3	BC	BLK	F710376-BLK6	1	10/18/2017 10:03:59	87462-1.RAW	10:03:59 AM	8.32	1	x	-0.6	-0.003	-0.003	ng/L	
Hg2600-3	BC	SAM	1710146-01	1	10/18/2017 10:08:08	87463-1.RAW	10:08:08 AM	93.25	1	x	84.3	0.472	0.472	ng/L	
Hg2600-3	BC	SAM	1710146-02	1	10/18/2017 10:12:16	87464-1.RAW	10:12:16 AM	16.05	1	x	7.1	0.040	0.040	ng/L	
Hg2600-3	BC	SAM	1710329-01	1	10/18/2017 10:16:25	87465-1.RAW	10:16:25 AM	332.89	1	x	323.9	1.813	1.813	ng/L	
Hg2600-3	BC	SAM	1710329-02	1	10/18/2017 10:20:33	87466-1.RAW	10:20:33 AM	13.26	1	x	4.3	0.024	0.024	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	10/18/2017 10:24:41	87467-1.RAW	10:24:41 AM	883.51			874.6	4.895	4.895	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	10/18/2017 10:28:50	87468-1.RAW	10:28:50 AM	15.31			6.4	0.036	0.036	ng/L	
Hg2600-3	BC	SAM	F710376-BS1	1	10/18/2017 10:32:58	87469-1.RAW	10:32:58 AM	2742.19	1	x	2733.3	15.298	15.298	ng/L	
Hg2600-3	BC	SAM	F710376-BSD1	1	10/18/2017 10:37:07	87470-1.RAW	10:37:07 AM	2897.31	1	x	2888.4	16.166	16.166	ng/L	
Hg2600-3	BC	SAM	F710376-DUP1	1	10/18/2017 10:41:15	87471-1.RAW	10:41:15 AM	342.88	1	x	333.9	1.869	1.869	ng/L	
Hg2600-3	BC	SAM	F710376-MS1	1	10/18/2017 10:45:24	87472-1.RAW	10:45:24 AM	1204.78	1	x	1195.8	6.693	6.693	ng/L	
Hg2600-3	BC	SAM	F710376-MSD1	1	10/18/2017 10:49:32	87473-1.RAW	10:49:32 AM	1218.64	1	x	1209.7	6.771	6.771	ng/L	
Hg2600-3	BC	SAM	ws	20	10/18/2017 10:53:41	87474-1.RAW	10:53:41 AM	936.17		x	927.2	5.190	103.794	ng/L	
Hg2600-3	BC	SAM	ws	20	10/18/2017 10:57:49	87475-1.RAW	10:57:49 AM	3494.33		x	3485.4	19.508	390.153	ng/L	
Hg2600-3	BC	BLK	F710215-BLK3	20	10/18/2017 11:03:44	87476-2.RAW	11:03:44 AM	30.01	2		21.1	0.118	2.358	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK4	20	10/18/2017 11:07:53	87477-1.RAW	11:07:53 AM	27.90	2		19.0	0.019	0.375	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK5	20	10/18/2017 11:12:01	87478-1.RAW	11:12:01 AM	20.34	2		11.4	-0.024	-0.470	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	10/18/2017 11:16:10	87479-1.RAW	11:16:10 AM	906.16			897.2	5.022	5.022	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	10/18/2017 11:20:18	87480-1.RAW	11:20:18 AM	18.09			9.1	0.051	0.051	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK6	20	10/18/2017 11:24:27	87481-1.RAW	11:24:27 AM	18.25	2		9.3	-0.035	-0.704	ng/L	
Hg2600-3	BC	SAM	*F710215-BLK7	20	10/18/2017 11:28:35	87482-1.RAW	11:28:35 AM	15.07	2		6.1	-0.053	-1.060	ng/L	
Hg2600-3	BC	BLK	F710215-BLK1	20	10/18/2017 11:32:43	87483-1.RAW	11:32:43 AM	23.82	2		14.9	0.083	1.666	ng/L	
Hg2600-3	BC	BLK	F710215-BLK2	20	10/18/2017 11:36:52	87484-1.RAW	11:36:52 AM	19.81	2		10.9	0.061	1.217	ng/L	
Hg2600-3	BC	SAM	F710215-BS1	20	10/18/2017 11:41:00	87485-1.RAW	11:41:00 AM	900.71	2		891.8	4.904	98.078	ng/L	
Hg2600-3	BC	SAM	F710215-BSD1	20	10/18/2017 11:45:09	87486-1.RAW	11:45:09 AM	949.16	2		940.2	5.175	103.501	ng/L	
Hg2600-3	BC	SAM	F710215-BS2	400	10/18/2017 11:49:17	87487-1.RAW	11:49:17 AM	971.90	2		963.0	5.385	2154.121	ng/L	
Hg2600-3	BC	SAM	1709619-06	100	10/18/2017 11:53:26	87488-1.RAW	11:53:26 AM	1926.50	2		1917.6	10.715	1071.505	ng/L	
Hg2600-3	BC	SAM	1709619-07	100	10/18/2017 11:57:34	87489-1.RAW	11:57:34 AM	1633.34	2		1624.4	9.074	907.427	ng/L	
Hg2600-3	BC	SAM	1709619-08	100	10/18/2017 12:01:43	87490-1.RAW	12:01:43 PM	1835.83	2		1826.9	10.208	1020.759	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	10/18/2017 12:05:51	87491-1.RAW	12:05:51 PM	878.64			869.7	4.868	4.868	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	10/18/2017 12:09:59	87492-1.RAW	12:09:59 PM	21.49			12.6	0.070	0.070	ng/L	
Hg2600-3	BC	SAM	1709619-09	100	10/18/2017 12:14:08	87493-1.RAW	12:14:08 PM	1680.62	2		1671.7	9.339	933.891	ng/L	
Hg2600-3	BC	SAM	1709619-10	100	10/18/2017 12:18:16	87494-1.RAW	12:18:16 PM	1737.63	2		1728.7	9.658	965.797	ng/L	
Hg2600-3	BC	SAM	1709619-11	100	10/18/2017 12:22:25	87495-1.RAW	12:22:25 PM	1815.57	2		1806.6	10.094	1009.418	ng/L	
Hg2600-3	BC	SAM	1709619-12	100	10/18/2017 12:26:33	87496-1.RAW	12:26:33 PM	1881.97	2		1873.0	10.466	1046.582	ng/L	
Hg2600-3	BC	SAM	1709619-13	100	10/18/2017 12:30:42	87497-1.RAW	12:30:42 PM	1852.77	2		1843.8	10.302	1030.241	ng/L	
Hg2600-3	BC	SAM	1709619-14	100	10/18/2017 12:34:50	87498-1.RAW	12:34:50 PM	1987.76	2		1978.8	11.058	1105.791	ng/L	
Hg2600-3	BC	SAM	1709619-15	100	10/18/2017 12:38:59	87499-1.RAW	12:38:59 PM	1820.77	2		1811.8	10.123	1012.331	ng/L	
Hg2600-3	BC	SAM	1709619-16	100	10/18/2017 12:43:07	87500-1.RAW	12:43:07 PM	1534.09	2		1525.2	8.519	851.878	ng/L	
Hg2600-3	BC	SAM	1709619-17	100	10/18/2017 12:47:15	87501-1.RAW	12:47:15 PM	1585.61	2		1576.7	8.807	880.711	ng/L	
Hg2600-3	BC	SAM	1709619-18	100	10/18/2017 12:51:24	87502-1.RAW	12:51:24 PM	1692.12	2		1683.2	9.403	940.325	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	10/18/2017 12:55:32	87503-1.RAW	12:55:32 PM	937.83			928.9	5.199	5.199	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber													
Hg2600-3	BC	CAL	SEQ-CCB4	1	10/18/2017 12:59:41	87504-1.RAW	12:59:41 PM	18.47				9.5	0.053	0.053	ng/L	
Hg2600-3	BC	SAM	1709619-19	100	10/18/2017 13:03:49	87505-1.RAW	1:03:49 PM	1754.58	2			1745.6	9.753	975.282	ng/L	
Hg2600-3	BC	SAM	1709619-20	100	10/18/2017 13:07:58	87506-1.RAW	1:07:58 PM	1477.18	2			1468.2	8.200	820.021	ng/L	
Hg2600-3	BC	SAM	1709620-01	100	10/18/2017 13:12:06	87507-1.RAW	1:12:06 PM	1178.13	2			1169.2	6.526	652.647	ng/L	
Hg2600-3	BC	SAM	1709620-02	100	10/18/2017 13:16:15	87508-1.RAW	1:16:15 PM	3271.75	2			3262.8	18.244	1824.440	ng/L	
Hg2600-3	BC	SAM	1709620-03	100	10/18/2017 13:20:23	87509-1.RAW	1:20:23 PM	4188.28	2			4179.3	23.374	2337.414	ng/L	
Hg2600-3	BC	SAM	1709620-04	100	10/18/2017 13:24:31	87510-1.RAW	1:24:31 PM	2545.18	2			2536.2	14.178	1417.780	ng/L	
Hg2600-3	BC	SAM	1709620-07	100	10/18/2017 13:28:40	87511-1.RAW	1:28:40 PM	2954.67	2			2945.7	16.470	1646.972	ng/L	
Hg2600-3	BC	SAM	F710215-DUP1	100	10/18/2017 13:32:48	87512-1.RAW	1:32:48 PM	1789.30	2			1780.4	9.947	994.714	ng/L	
Hg2600-3	BC	SAM	F710215-MS1	400	10/18/2017 13:36:57	87513-1.RAW	1:36:57 PM	2529.76	2			2520.8	14.105	5641.839	ng/L	
Hg2600-3	BC	SAM	F710215-MSD1	400	10/18/2017 13:41:05	87514-1.RAW	1:41:05 PM	2536.27247	2			2527.3	14.141	5656.417	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	10/18/2017 13:45:14	87515-1.RAW	1:45:14 PM	942.94				934.0	5.228	5.228	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	10/18/2017 13:49:22	87516-1.RAW	1:49:22 PM	34.80				25.9	0.145	0.145	ng/L	
Hg2600-3	BC	SAM	F710215-MS2	400	10/18/2017 13:53:30	87517-1.RAW	1:53:30 PM	2539.67	2			2530.7	14.160	5664.025	ng/L	
Hg2600-3	BC	SAM	F710215-MSD2	400	10/18/2017 13:57:39	87518-1.RAW	1:57:39 PM	2706.28	2			2697.3	15.093	6037.038	ng/L	
Hg2600-3	BC	BLK	F710291-BLK1	20	10/18/2017 14:01:47	87519-1.RAW	2:01:47 PM	43.35	3			34.4	0.193	3.852	ng/L	
Hg2600-3	BC	BLK	F710291-BLK2	20	10/18/2017 14:05:56	87520-1.RAW	2:05:56 PM	28.60	3			19.7	0.110	2.200	ng/L	
Hg2600-3	BC	BLK	F710291-BLK3	20	10/18/2017 14:10:04	87521-1.RAW	2:10:04 PM	30.99	3			22.1	0.123	2.468	ng/L	
Hg2600-3	BC	SAM	*F710291-BLK4	20	10/18/2017 14:14:13	87522-1.RAW	2:14:13 PM	24.55	3			15.6	-0.055	-1.092	ng/L	
Hg2600-3	BC	SAM	*F710291-BLK5	20	10/18/2017 14:18:21	87523-1.RAW	2:18:21 PM	24.83	3			15.9	-0.053	-1.061	ng/L	
Hg2600-3	BC	SAM	WS	100	10/18/2017 14:22:30	87524-1.RAW	2:22:30 PM	875.97	x			867.0	4.853	485.276	ng/L	
Hg2600-3	BC	SAM	F710291-BS1	20	10/18/2017 14:26:38	87525-1.RAW	2:26:38 PM	966.14	3			957.2	5.215	104.309	ng/L	
Hg2600-3	BC	SAM	F710291-BSD1	20	10/18/2017 14:30:46	87526-1.RAW	2:30:46 PM	989.96	3			981.0	5.349	106.975	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	10/18/2017 14:34:55	87527-1.RAW	2:34:55 PM	895.36				886.4	4.961	4.961	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	10/18/2017 14:39:03	87528-1.RAW	2:39:03 PM	24.04				15.1	0.085	0.085	ng/L	
Hg2600-3	BC	SAM	1709629-19	100	10/18/2017 14:44:22	87529-2.RAW	2:44:22 PM	1809.16	3			1800.2	10.047	1004.737	ng/L	
Hg2600-3	BC	SAM	F710291-BS2	400	10/18/2017 14:48:30	87530-1.RAW	2:48:30 PM	1084.89	3			1076.0	6.015	2405.990	ng/L	
Hg2600-3	BC	SAM	1709629-20	100	10/18/2017 14:52:39	87531-1.RAW	2:52:39 PM	2421.15	3			2412.2	13.473	1347.269	ng/L	
Hg2600-3	BC	SAM	1709630-01	100	10/18/2017 14:56:47	87532-1.RAW	2:56:47 PM	2094.50	3			2085.6	11.644	1164.444	ng/L	
Hg2600-3	BC	SAM	1709630-02	100	10/18/2017 15:00:56	87533-1.RAW	3:00:56 PM	2169.65	3			2160.7	12.065	1206.504	ng/L	
Hg2600-3	BC	SAM	1709630-03	100	10/18/2017 15:05:04	87534-1.RAW	3:05:04 PM	1177.18	3			1168.2	6.510	651.020	ng/L	
Hg2600-3	BC	SAM	1709630-04	100	10/18/2017 15:09:12	87535-1.RAW	3:09:12 PM	3392.02	3			3383.1	18.907	1890.658	ng/L	
Hg2600-3	BC	SAM	1709630-05	100	10/18/2017 15:13:21	87536-1.RAW	3:13:21 PM	1792.48	3			1783.5	9.954	995.404	ng/L	
Hg2600-3	BC	SAM	1709630-06	100	10/18/2017 15:17:29	87537-1.RAW	3:17:29 PM	2507.07	3			2498.1	13.954	1395.358	ng/L	
Hg2600-3	BC	SAM	1709630-07	100	10/18/2017 15:21:38	87538-1.RAW	3:21:38 PM	2625.83	3			2616.9	14.618	1461.828	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	10/18/2017 15:25:46	87539-1.RAW	3:25:46 PM	921.29				912.4	5.106	5.106	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	10/18/2017 15:29:55	87540-1.RAW	3:29:55 PM	30.69				21.7	0.122	0.122	ng/L	
Hg2600-3	BC	SAM	1709630-08	100	10/18/2017 15:34:03	87541-1.RAW	3:34:03 PM	3035.66	3			3026.7	16.912	1691.207	ng/L	
Hg2600-3	BC	SAM	1709630-09	100	10/18/2017 15:38:12	87542-1.RAW	3:38:12 PM	2627.13	3			2618.2	14.626	1462.551	ng/L	
Hg2600-3	BC	SAM	1709630-10	100	10/18/2017 15:42:20	87543-1.RAW	3:42:20 PM	1511.24	3			1502.3	8.380	837.996	ng/L	
Hg2600-3	BC	SAM	1709630-11	100	10/18/2017 15:46:28	87544-1.RAW	3:46:28 PM	1954.56	3			1945.6	10.861	1086.118	ng/L	
Hg2600-3	BC	SAM	1709630-12	100	10/18/2017 15:50:36	87545-1.RAW	3:50:36 PM	1382.72	3			1373.8	7.661	766.064	ng/L	
Hg2600-3	BC	SAM	1709630-13	100	10/18/2017 15:54:44	87546-1.RAW	3:54:44 PM	2213.58	3			2204.6	12.311	1231.093	ng/L	
Hg2600-3	BC	SAM	1709630-14	100	10/18/2017 15:58:52	87547-1.RAW	3:58:52 PM	2114.21	3			2105.3	11.755	1175.471	ng/L	
Hg2600-3	BC	SAM	1709630-15	100	10/18/2017 16:03:01	87548-1.RAW	4:03:01 PM	2911.77	3			2902.8	16.219	1621.866	ng/L	
Hg2600-3	BC	SAM	1709630-16	100	10/18/2017 16:07:09	87549-1.RAW	4:07:09 PM	1897.84	3			1888.9	10.544	1054.373	ng/L	
Hg2600-3	BC	SAM	1709630-17	100	10/18/2017 16:11:17	87550-1.RAW	4:11:17 PM	2532.17	3			2523.2	14.094	1409.406	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8	1	10/18/2017 16:15:26	87551-1.RAW	4:15:26 PM	925.45				916.5	5.130	5.130	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8	1	10/18/2017 16:19:34	87552-1.RAW	4:19:34 PM	36.62				27.7	0.155	0.155	ng/L	
Hg2600-3	BC	SAM	1709630-18	100	10/18/2017 16:23:43	87553-1.RAW	4:23:43 PM	2282.15	3			2273.2	12.695	1269.470	ng/L	
Hg2600-3	BC	SAM	F710291-DUP1	100	10/18/2017 16:27:51	87554-1.RAW	4:27:51 PM	1856.10	3			1847.2	10.310	1031.010	ng/L	
Hg2600-3	BC	SAM	F710291-MS1	400	10/18/2017 16:31:59	87555-1.RAW	4:31:59 PM	2790.65	3			2781.7	15.562	6224.819	ng/L	
Hg2600-3	BC	SAM	F710291-MSD1	400	10/18/2017 16:36:08	87556-1.RAW	4:36:08 PM	2472.94	3			2464.0	13.784	5513.544	ng/L	
Hg2600-3	BC	SAM	F710291-MS2	400	10/18/2017 16:40:16	87557-1.RAW	4:40:16 PM	2747.46	3			2738.5	15.320	6128.137	ng/L	
Hg2600-3	BC	SAM	F710291-MSD2	400	10/18/2017 16:44:25	87558-1.RAW	4:44:25 PM	2740.02	3			2731.1	15.279	6111.467	ng/L	
Hg2600-3	BC	BLK	F710351-BLK1	50	10/18/2017 16:48:33	87559-1.RAW	4:48:33 PM	44.44	4			35.5	0.199	9.935	ng/L	
Hg2600-3	BC	BLK	F710351-BLK2	50	10/18/2017 16:52:41	87560-1.RAW	4:52:41 PM	29.20	4			20.3	0.113	5.670	ng/L	
Hg2600-3	BC	SAM	F710351-BS1	400	10/18/2017 16:56:50	87561-1.RAW	4:56:50 PM	1320.63	4			1311.7	7.322	2928.797	ng/L	
Hg2600-3	BC	SAM	F710351-BSD1	400	10/18/2017 17:00:58	87562-1.RAW	5:00:58 PM	1098.62	4			1089.7	6.079	2431.770	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV9	1	10/18/2017 17:05:07	87563-1.RAW	5:05:07 PM	918.40				909.5	5.090	5.090	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB9	1	10/18/2017 17:09:15	87564-1.RAW	5:09:15 PM	33.31				24.4	0.136	0.136	ng/L	
Hg2600-3	BC	SAM	1710455-01	50	10/18/2017 17:13:24	87565-1.RAW	5:13:24 PM	25.53	4			16.6	-0.063	-3.159	ng/L	
Hg2600-3	BC	SAM	1710458-01	50	10/18/2017 17:17:32	87566-1.RAW	5:17:32 PM	23.05	4			14.1	-0.077	-3.854	ng/L	
Hg2600-3	BC	SAM	F710351-DUP1	50	10/18/2017 17:21:40	87567-1.RAW	5:21:40 PM	16.89	4			8.0	-0.112	-5.577	ng/L	
Hg2600-3	BC	SAM	F710351-MS1	400	10/18/2017 17:25:49	87568-1.RAW	5:25:49 PM	1296.98	4			1288.0	7.190	2875.856	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	SAM	F710351-MSD1	400	10/18/2017 17:29:57	87569-1.RAW	5:29:57 PM	1232.58	4		1223.6	6.829	2731.670	ng/L	
Hg2600-3	BC	CAL	SEQ-CCVA	1	10/18/2017 17:34:06	87570-1.RAW	5:34:06 PM	918.05			909.1	5.088	5.088	ng/L	
Hg2600-3	BC	CAL	SEQ-CCBA	1	10/18/2017 17:38:14	87571-1.RAW	5:38:14 PM	28.53			19.6	0.110	0.110	ng/L	

TotalMercury EPA1631
 Operati BC BlankSi 8.9373 Calib Eqn: Conc = (Area-8.937 Run Date: ##### Blank SD: 1.619207196
 Worksh THg260(CalibFa 178.67 Status: QC Warnings:11/QC Run Time: 14:40:13 Blank RSD%: 18.11738586
 Method ##### R: 0.9999 R2: 0.9997 CF SD: 5.361978241
 Descrip THg26002-171017-1 CF RSD%: 3.001081205

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean				0.00	3.37					87442-1.RAW	8:29:09	601.91	Clean	OK	1	
clean				0.00	0.02					87443-1.RAW	8:32:01	4.33	Clean	OK	1	
ws				8.94	0.00					87444-1.RAW	8:36:09	9.38	Sample	OK	1	
ws				8.94	0.00					87445-1.RAW	8:40:17	6.19	Sample	OK	1	
ws				8.94	0.00					87446-1.RAW	8:44:26	6.02	Sample	OK	1	
SEQ-IBL1	A1		1	0.00	0.06					87447-1.RAW	8:48:34	10.80	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.05					87448-1.RAW	8:52:43	8.09	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.04					87449-1.RAW	8:56:51	7.92	Sample	OK	1	
SEQ-CAL1	A4		1	8.94	0.50			99.69		87450-1.RAW	9:01:00	97.99	Sample	OK	1	
SEQ-CAL2	A5		1	8.94	1.04			104.23		87451-1.RAW	9:05:08	195.16	Sample	OK	1	
SEQ-CAL3	A6		1	8.94	5.05			100.97		87452-1.RAW	9:09:17	910.96	Sample	OK	1	
SEQ-CAL4	A7		1	8.94	19.83			99.17		87453-1.RAW	9:13:25	3552.62	Sample	OK	1	
SEQ-CAL5	A8		1	8.94	38.38			95.95		87454-1.RAW	9:17:34	6865.94	Sample	OK	1	
SEQ-ICV1	A9		1	8.94	5.02			100.40		87455-1.RAW	9:21:42	905.88	Sample	OK	1	
WS				8.94	0.21					87456-1.RAW	9:39:08	46.72	Sample	OK	1	
F710376-BLK1	A10		1	8.94	0.00					87457-1.RAW	9:43:17	8.83	Sample	OK	1	
F710376-BLK2	A11		1	8.94	0.00					87458-1.RAW	9:47:25	8.79	Sample	OK	1	
F710376-BLK3	A12		1	8.94	0.01					87459-1.RAW	9:51:34	10.89	Sample	OK	1	
F710376-BLK4	A13		1	8.94	0.00					87460-1.RAW	9:55:42	6.34	Sample	OK	1	
F710376-BLK5	A14		1	8.94	0.00					87461-1.RAW	9:59:51	8.60	Sample	OK	1	
F710376-BLK6	A15		1	8.94	0.00					87462-1.RAW	10:03:59	8.32	Sample	OK	1	
1710146-01	A16		1	8.94	0.47					87463-1.RAW	10:08:08	93.25	Sample	OK	1	
1710146-02	A17		1	8.94	0.04					87464-1.RAW	10:12:16	16.05	Sample	OK	1	
1710329-01	A18		1	8.94	1.81					87465-1.RAW	10:16:25	332.89	Sample	OK	1	
1710329-02	A19		1	8.94	0.02					87466-1.RAW	10:20:33	13.26	Sample	OK	1	
SEQ-CCV1	A20		1	8.94	4.89			97.90		87467-1.RAW	10:24:41	883.51	Sample	OK	1	
SEQ-CCB1	A21		1	8.94	0.04			0.00		87468-1.RAW	10:28:50	15.31	Sample	OK	1	
F710376-BS1	B1		1	8.94	15.30					87469-1.RAW	10:32:58	2742.19	Sample	OK	1	
F710376-BSD1	B2		1	8.94	16.17					87470-1.RAW	10:37:07	2897.31	Sample	OK	1	
F710376-DUP1	B3		1	8.94	1.87					87471-1.RAW	10:41:15	342.88	Sample	OK	1	
F710376-MS1	B4		1	8.94	6.69			233.28		87472-1.RAW	10:45:24	1204.78	Sample	OK	1	
F710376-MSD1	B5		1	8.94	6.77					87473-1.RAW	10:49:32	1218.64	Sample	OK	1	
ws	A6		20	8.94	103.79					87474-1.RAW	10:53:41	936.17	Sample	OK	1	WRONG LOCATION
ws	A7		20	8.94	390.15					87475-1.RAW	10:57:49	3494.33	Sample	OK	1	WRONG LOCATION
F710215-BLK3	B8		20	8.94	2.36					87476-2.RAW	11:03:44	30.01	Sample	OK	1	
*F710215-BLK4	B9		20	8.94	2.12					87477-1.RAW	11:07:53	27.90	Sample	OK	1	
*F710215-BLK5	B10		20	8.94	1.28					87478-1.RAW	11:12:01	20.34	Sample	OK	1	
SEQ-CCV2	B11		1	8.94	5.02			100.43		87479-1.RAW	11:16:10	906.16	Sample	OK	1	
SEQ-CCB2	B12		1	8.94	0.05			0.00		87480-1.RAW	11:20:18	18.09	Sample	OK	1	
*F710215-BLK6	B13		20	8.94	1.04					87481-1.RAW	11:24:27	18.25	Sample	OK	1	
*F710215-BLK7	B14		20	8.94	0.69					87482-1.RAW	11:28:35	15.07	Sample	OK	1	
F710215-BLK1	B15		20	8.94	1.67					87483-1.RAW	11:32:43	23.82	Sample	OK	1	
F710215-BLK2	B16		20	8.94	1.22					87484-1.RAW	11:36:52	19.81	Sample	OK	1	
F710215-BS1	B17		20	8.94	99.82					87485-1.RAW	11:41:00	900.71	Sample	OK	1	
F710215-BSD1	B18		20	8.94	105.25					87486-1.RAW	11:45:09	949.16	Sample	OK	1	
F710215-BS2	B19		400	8.94	2155.87					87487-1.RAW	11:49:17	971.90	Sample	OK	1	
1709619-06	B20		100	8.94	1073.25					87488-1.RAW	11:53:26	1926.50	Sample	OK	1	
1709619-07	B21		100	8.94	909.17					87489-1.RAW	11:57:34	1633.34	Sample	OK	1	
1709619-08	C1		100	8.94	1022.51					87490-1.RAW	12:01:43	1835.83	Sample	OK	1	

SEQ-CCV3	C2	1	8.94	4.87	97.35	87491-1.RAW	12:05:51	878.64	Sample	OK	1
SEQ-CCB3	C3	1	8.94	0.07	0.00	87492-1.RAW	12:09:59	21.49	Sample	OK	1
1709619-09	C4	100	8.94	935.64		87493-1.RAW	12:14:08	1680.62	Sample	OK	1
1709619-10	C5	100	8.94	967.54		87494-1.RAW	12:18:16	1737.63	Sample	OK	1
1709619-11	C6	100	8.94	1011.16		87495-1.RAW	12:22:25	1815.57	Sample	OK	1
1709619-12	C7	100	8.94	1048.33		87496-1.RAW	12:26:33	1881.97	Sample	OK	1
1709619-13	C8	100	8.94	1031.99		87497-1.RAW	12:30:42	1852.77	Sample	OK	1
1709619-14	C9	100	8.94	1107.54		87498-1.RAW	12:34:50	1987.76	Sample	OK	1
1709619-15	C10	100	8.94	1014.08		87499-1.RAW	12:38:59	1820.77	Sample	OK	1
1709619-16	C11	100	8.94	853.62		87500-1.RAW	12:43:07	1534.09	Sample	OK	1
1709619-17	C12	100	8.94	882.46		87501-1.RAW	12:47:15	1585.61	Sample	OK	1
1709619-18	C13	100	8.94	942.07		87502-1.RAW	12:51:24	1692.12	Sample	OK	1
SEQ-CCV4	C14	1	8.94	5.20	103.98	87503-1.RAW	12:55:32	937.83	Sample	OK	1
SEQ-CCB4	C15	1	8.94	0.05	0.00	87504-1.RAW	12:59:41	18.47	Sample	OK	1
1709619-19	C16	100	8.94	977.03		87505-1.RAW	13:03:49	1754.58	Sample	OK	1
1709619-20	C17	100	8.94	821.77		87506-1.RAW	13:07:58	1477.18	Sample	OK	1
1709620-01	C18	100	8.94	654.39		87507-1.RAW	13:12:06	1178.13	Sample	OK	1
1709620-02	C19	100	8.94	1826.19		87508-1.RAW	13:16:15	3271.75	Sample	OK	1
1709620-03	C20	100	8.94	2339.16		87509-1.RAW	13:20:23	4188.28	Sample	OK	1
1709620-04	C21	100	8.94	1419.53		87510-1.RAW	13:24:31	2545.18	Sample	OK	1
1709620-07	A1	100	8.94	1648.72		87511-1.RAW	13:28:40	2954.67	Sample	OK	1
F710215-DUP1	A2	100	8.94	996.46		87512-1.RAW	13:32:48	1789.30	Sample	OK	1
F710215-MS1	A3	400	8.94	5643.59	565.80	87513-1.RAW	13:36:57	2529.76	Sample	OK	1
F710215-MSD1	A4	400	8.94	5658.16		87514-1.RAW	13:41:05	2536.27	Sample	OK	1
SEQ-CCV5	A5	1	8.94	5.23	104.55	87515-1.RAW	13:45:14	942.94	Sample	OK	1
SEQ-CCB5	A6	1	8.94	0.14	0.00	87516-1.RAW	13:49:22	34.80	Sample	OK	1
F710215-MS2	A7	400	8.94	5665.77	264166.22	87517-1.RAW	13:53:30	2539.67	Sample	OK	1
F710215-MSD2	A8	400	8.94	6038.79		87518-1.RAW	13:57:39	2706.28	Sample	OK	1
F710291-BLK1	A9	20	8.94	3.85		87519-1.RAW	14:01:47	43.35	Sample	OK	1
F710291-BLK2	A10	20	8.94	2.20		87520-1.RAW	14:05:56	28.60	Sample	OK	1
F710291-BLK3	A11	20	8.94	2.47		87521-1.RAW	14:10:04	30.99	Sample	OK	1
*F710291-BLK4	A12	20	8.94	1.75		87522-1.RAW	14:14:13	24.55	Sample	OK	1
*F710291-BLK5	A13	20	8.94	1.78		87523-1.RAW	14:18:21	24.83	Sample	OK	1
WS	A17	100	8.94	485.28		87524-1.RAW	14:22:30	875.97	Sample	OK	1
F710291-BS1	A14	20	8.94	107.15		87525-1.RAW	14:26:38	966.14	Sample	OK	1
F710291-BSD1	A15	20	8.94	109.81		87526-1.RAW	14:30:46	989.96	Sample	OK	1
SEQ-CCV6	A17	1	8.94	4.96	99.23	87527-1.RAW	14:34:55	895.36	Sample	OK	1
SEQ-CCB6	A18	1	8.94	0.08	0.00	87528-1.RAW	14:39:03	24.04	Sample	OK	1
1709629-19	A19	100	8.94	1007.58		87529-2.RAW	14:44:22	1809.16	Sample	OK	1
F710291-BS2	A16	400	8.94	2408.83		87530-1.RAW	14:48:30	1084.89	Sample	OK	1
1709629-20	A20	100	8.94	1350.11		87531-1.RAW	14:52:39	2421.15	Sample	OK	1
1709630-01	A21	100	8.94	1167.28		87532-1.RAW	14:56:47	2094.50	Sample	OK	1
1709630-02	B1	100	8.94	1209.34		87533-1.RAW	15:00:56	2169.65	Sample	OK	1
1709630-03	B2	100	8.94	653.86		87534-1.RAW	15:05:04	1177.18	Sample	OK	1
1709630-04	B3	100	8.94	1893.50		87535-1.RAW	15:09:12	3392.02	Sample	OK	1
1709630-05	B4	100	8.94	998.24		87536-1.RAW	15:13:21	1792.48	Sample	OK	1
1709630-06	B5	100	8.94	1398.20		87537-1.RAW	15:17:29	2507.07	Sample	OK	1
1709630-07	B6	100	8.94	1464.67		87538-1.RAW	15:21:38	2625.83	Sample	OK	1
SEQ-CCV7	B7	1	8.94	5.11	102.13	87539-1.RAW	15:25:46	921.29	Sample	OK	1
SEQ-CCB7	B8	1	8.94	0.12	0.00	87540-1.RAW	15:29:55	30.69	Sample	OK	1
1709630-08	B9	100	8.94	1694.05		87541-1.RAW	15:34:03	3035.66	Sample	OK	1
1709630-09	B10	100	8.94	1465.39		87542-1.RAW	15:38:12	2627.13	Sample	OK	1
1709630-10	B11	100	8.94	840.84		87543-1.RAW	15:42:20	1511.24	Sample	OK	1
1709630-11	B12	100	8.94	1088.96		87544-1.RAW	15:46:28	1954.56	Sample	OK	1

WRONG LOCATION

1709630-12	B13	100	8.94	768.90		87545-1.RAW	15:50:36	1382.72	Sample	OK	1
1709630-13	B14	100	8.94	1233.93		87546-1.RAW	15:54:44	2213.58	Sample	OK	1
1709630-14	B15	100	8.94	1178.31		87547-1.RAW	15:58:52	2114.21	Sample	OK	1
1709630-15	B16	100	8.94	1624.71		87548-1.RAW	16:03:01	2911.77	Sample	OK	1
1709630-16	B17	100	8.94	1057.21		87549-1.RAW	16:07:09	1897.84	Sample	OK	1
1709630-17	B18	100	8.94	1412.25		87550-1.RAW	16:11:17	2532.17	Sample	OK	1
SEQ-CCV8	B19	1	8.94	5.13	102.59	87551-1.RAW	16:15:26	925.45	Sample	OK	1
SEQ-CCB8	B20	1	8.94	0.15	0.00	87552-1.RAW	16:19:34	36.62	Sample	OK	1
1709630-18	B21	100	8.94	1272.31		87553-1.RAW	16:23:43	2282.15	Sample	OK	1
F710291-DUP1	C1	100	8.94	1033.85		87554-1.RAW	16:27:51	1856.10	Sample	OK	1
F710291-MS1	C2	400	8.94	6227.66	601.79	87555-1.RAW	16:31:59	2790.65	Sample	OK	1
F710291-MSD1	C3	400	8.94	5516.38		87556-1.RAW	16:36:08	2472.94	Sample	OK	1
F710291-MS2	C4	400	8.94	6130.98	111.10	87557-1.RAW	16:40:16	2747.46	Sample	OK	1
F710291-MSD2	C5	400	8.94	6114.31		87558-1.RAW	16:44:25	2740.02	Sample	OK	1
F710351-BLK1	C6	50	8.94	9.94		87559-1.RAW	16:48:33	44.44	Sample	OK	1
F710351-BLK2	C7	50	8.94	5.67		87560-1.RAW	16:52:41	29.20	Sample	OK	1
F710351-BS1	C8	400	8.94	2936.60		87561-1.RAW	16:56:50	1320.63	Sample	OK	1
F710351-BSD1	C9	400	8.94	2439.57		87562-1.RAW	17:00:58	1098.62	Sample	OK	1
SEQ-CCV9	C10	1	8.94	5.09	101.80	87563-1.RAW	17:05:07	918.40	Sample	OK	1
SEQ-CCB9	C11	1	8.94	0.14	0.00	87564-1.RAW	17:09:15	33.31	Sample	OK	1
1710455-01	C12	50	8.94	4.64		87565-1.RAW	17:13:24	25.53	Sample	OK	1
1710458-01	C13	50	8.94	3.95		87566-1.RAW	17:17:32	23.05	Sample	OK	1
F710351-DUP1	C14	50	8.94	2.23		87567-1.RAW	17:21:40	16.89	Sample	OK	1
F710351-MS1	C15	400	8.94	2883.66	89398.43	87568-1.RAW	17:25:49	1296.98	Sample	OK	1
F710351-MSD1	C16	400	8.94	2739.47		87569-1.RAW	17:29:57	1232.58	Sample	OK	1
SEQ-CCVA	C17	1	8.94	5.09		87570-1.RAW	17:34:06	918.05	Sample	OK	1
SEQ-CCBA	C18	1	8.94	0.11		87571-1.RAW	17:38:14	28.53	Sample	OK	1
SNCL 1706141	C19	1	8.94	0.06		87572-1.RAW	17:42:22	20.12	Sample	OK	1
CLEAN			0.00	0.05		87573-1.RAW	17:45:14	9.54	Clean	OK	1
CLEAN			0.00	0.05		87574-1.RAW	17:48:05	9.59	Clean	OK	1
WS			8.94	0.05		87575-1.RAW	17:52:14	17.45	Sample	OK	1
WS			8.94	0.00		87576-1.RAW	17:56:22	7.84	Sample	OK	1
WS			8.94	0.02		87577-1.RAW	18:00:30	13.09	Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7J18020

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R 10/19/17* Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18020-IBL1 ✓	QC	1			
7J18020-IBL2 ✓	QC	2			
7J18020-IBL3 ✓	QC	3			
7J18020-CAL1 ✓	QC	4	1704505	✓	
7J18020-CAL2 ✓	QC	5	1704506	✓	
7J18020-CAL3 ✓	QC	6	1704507	✓	
7J18020-CAL4 ✓	QC	7	1704508	✓	
7J18020-CAL5 ✓	QC	8	1704509	✓	
7J18020-ICV1 ✓	QC	9	1705628	✓	
7J18020-CCV1 ✓	QC	10	1705628	✓	
7J18020-CCB1 ✓	QC	11			
F710215-BLK3 ✓	QC	12			
F710215-BLK4 ✓	QC	13			
F710215-BLK5 ✓	QC	14			
7J18020-CCV2 ✓	QC	15	1705628	✓	
7J18020-CCB2 ✓	QC	16			
F710215-BLK6 ✓	QC	17			
F710215-BLK7 ✓	QC	18			
F710215-BLK1 ✓	QC	19			
F710215-BLK2 ✓	QC	20			
F710215-BS1 ✓	QC	21			
F710215-BSD1 ✓	QC	22			
F710215-BS2 ✓	QC	23			
1709619-06 ✓	Hg-CVAFS-T-7030	24			
1709619-07 ✓	Hg-CVAFS-T-7030	25			
1709619-08 ✓	Hg-CVAFS-T-7030	26			
7J18020-CCV3	QC	27	1705628	✓	
7J18020-CCB3 ✓	QC	28			
1709619-09 ✓	Hg-CVAFS-T-7030	29			
1709619-10 ✓	Hg-CVAFS-T-7030	30			
1709619-11 ✓	Hg-CVAFS-T-7030	31			
1709619-12 ✓	Hg-CVAFS-T-7030	32			
1709619-13 ✓	Hg-CVAFS-T-7030	33			
1709619-14 ✓	Hg-CVAFS-T-7030	34			
1709619-15 ✓	Hg-CVAFS-T-7030	35			

ANALYSIS SEQUENCE

7J18020

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709619-16 ✓	Hg-CVAFS-T-7030	36			
1709619-17 ✓	Hg-CVAFS-T-7030	37			
1709619-18 ✓	Hg-CVAFS-T-7030	38			
7J18020-CCV4 ✓	QC	39	1705628	✓	
7J18020-CCB4 ✓	QC	40			
1709619-19 ✓	Hg-CVAFS-T-7030	41			
1709619-20 ✓	Hg-CVAFS-T-7030	42			
1709620-01 ✓	Hg-CVAFS-T-7030	43			
1709620-02 ✓	Hg-CVAFS-T-7030	44			
1709620-03 ✓	Hg-CVAFS-T-7030	45			
1709620-04 ✓	Hg-CVAFS-T-7030	46			
1709620-07 ✓	Hg-CVAFS-T-7030	47			
F710215-DUP1 ✓	QC	48			
F710215-MS1 ✓	QC	49			
F710215-MSD1 ✓	QC	50			
7J18020-CCV5 ✓	QC	51	1705628		
7J18020-CCB5 ✓	QC	52			
F710215-MS2 ✓	QC	53			
F710215-MSD2 ✓	QC	54			
F710291-BLK1 ✓	QC	55			
F710291-BLK2 ✓	QC	56			
F710291-BLK3 ✓	QC	57			
F710291-BLK4 ✓	QC	58			
F710291-BLK5 ✓	QC	59			
F710291-BS1 ✓	QC	60			
F710291-BSD1 ✓	QC	61			
7J18020-CCV6 ✓	QC	62	1705628	✓	
7J18020-CCB6 ✓	QC	63			
1709629-19 ✓	Hg-CVAFS-T-7030	64			
F710291-BS2 ✓	QC	65			
1709629-20 ✓	Hg-CVAFS-T-7030	66			
1709630-01 ✓	Hg-CVAFS-T-7030	67			
1709630-02 ✓	Hg-CVAFS-T-7030	68			
1709630-03 ✓	Hg-CVAFS-T-7030	69			
1709630-04 ✓	Hg-CVAFS-T-7030	70			

Due Date: 10/20/2017

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ANALYSIS SEQUENCE

7J18020

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709630-05 ✓	Hg-CVAFS-T-7030	71			
1709630-06 ✓	Hg-CVAFS-T-7030	72			
1709630-07 ✓	Hg-CVAFS-T-7030	73			
7J18020-CCV7 ✓	QC	74	1705628	✓	
7J18020-CCB7 ✓	QC	75			
1709630-08 ✓	Hg-CVAFS-T-7030	76			
1709630-09 ✓	Hg-CVAFS-T-7030	77			
1709630-10 ✓	Hg-CVAFS-T-7030	78			
1709630-11 ✓	Hg-CVAFS-T-7030	79			
1709630-12 ✓	Hg-CVAFS-T-7030	80			
1709630-13 ✓	Hg-CVAFS-T-7030	81			
1709630-14 ✓	Hg-CVAFS-T-7030	82			
1709630-15 ✓	Hg-CVAFS-T-7030	83			
1709630-16 ✓	Hg-CVAFS-T-7030	84			
1709630-17 ✓	Hg-CVAFS-T-7030	85		✓	
7J18020-CCV8 ✓	QC	86	1705628		
7J18020-CCB8 ✓	QC	87			
1709630-18 ✓	Hg-CVAFS-T-7030	88			
F710291-DUP1 ✓	QC	89			
F710291-MS1 ✓	QC	90			
F710291-MSD1 ✓	QC	91			
F710291-MS2 ✓	QC	92			
F710291-MSD2 ✓	QC	93			
7J18020-CCV9 ✓	QC	94	1705628	✓	
7J18020-CCB9 ✓	QC	95			

Beck 10/18/17
 Samples Loaded By Date

Beck 10/18/17
 Data Processed By Date

10787
 10/17/17

PREPARATION BENCH SHEET

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710215-BLK1	Blank	0.25	20					
F710215-BLK2	Blank	0.25	20					
F710215-BLK3	Blank	0.25	20					
F710215-BLK4	Blank	0.266	20					Pre-homogenization Blank for 1709619
F710215-BLK5	Blank	0.258	20					Post-homogenization Blank for 1709619
F710215-BLK6	Blank	0.276	20					Pre-homogenization Blank for 1709620
F710215-BLK7	Blank	0.252	20					Post-homogenization Blank for 1709620
F710215-BS1	LCS	0.25	20	1704421	20			
F710215-BS2	DORM4	0.1256	20	1705412	125.6			
F710215-BSD1	LCS Dup	0.25	20	1704421	20			
F710215-DUP1	Duplicate [1709619-06]	0.276	20					
F710215-MS1	Matrix Spike [1709619-06]	0.276	20	1705554	100			
F710215-MS2	Matrix Spike [1709619-07]	0.267	20	1705554	100			
F710215-MSD1	Matrix Spike Dup [1709619-06]	0.266	20	1705554	100			
F710215-MSD2	Matrix Spike Dup [1709619-07]	0.274	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709619-06	OB-05_17SN001_091517_MUM_06_WB	0.28	20	-	-	-		
1709619-07	OB-05_17SN001_091517_MUM_07_WB	0.254	20	-	-	-		
1709619-08	OB-05_17SN001_091517_MUM_08_WB	0.263	20	-	-	-		
1709619-09	OB-05_17SN001_091517_MUM_09_WB	0.252	20	-	-	-		
1709619-10	OB-05_17SN001_091517_MUM_10_WB	0.259	20	-	-	-		
1709619-11	OB-05_17SN001_091517_MUM_11_WB	0.262	20	-	-	-		
1709619-12	OB-05_17SN001_091517_MUM_12_WB	0.259	20	-	-	-		
1709619-13	OB-05_17SN001_091517_MUM_13_WB	0.268	20	-	-	-		
1709619-14	OB-05_17SN001_091517_MUM_14_WB	0.272	20	-	-	-		
1709619-15	OB-05_17SN001_091517_MUM_15_WB	0.261	20	-	-	-		
1709619-16	OB-05_17SN001_091517_MUM_16_WB	0.262	20	-	-	-		
1709619-17	OB-05_17SN001_091517_MUM_17_WB	0.265	20	-	-	-		
1709619-18	OB-05_17SN001_091517_MUM_18_WB	0.269	20	-	-	-		
1709619-19	OB-05_17SN001_091517_MUM_19_WB	0.255	20	-	-	-		
1709619-20	OB-05_17SN001_091517_MUM_20_WB	0.262	20	-	-	-		
1709620-01	MMMC-01_17MT001_091817_MUM_01_WB	0.254	20	-	-	-		
1709620-02	MMMC-01_17MT001_092017_MUM_02_WB	0.267	20	-	-	-		
1709620-03	MMMC-01_17MT004_092017_MUM_03_WB	0.271	20	-	-	-		
1709620-04	MMMC-01_17MT004_092017_MUM_04_WB	0.261	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709620-07	MMMC-01_17MT003_092017_MUM_07_WB	0.2702	20	-	-	-		
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PREPARATION BENCH SHEET

200-2
10/17/17 BC

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710215-BLK1	Blank	0.25	20					20X -
F710215-BLK2	Blank	0.25	20					20X -
F710215-BLK3	Blank	0.25	20					20X -
F710215-BLK4	Blank	0.266	20					Pre-homogenization Blank for 1709619 20X
F710215-BLK5	Blank	0.258	20					Post-homogenization Blank for 1709619 20X
F710215-BLK6	Blank	0.276	20					Pre-homogenization Blank for 1709620 20X
F710215-BLK7	Blank	0.252	20					Post-homogenization Blank for 1709620 20X
F710215-BS1	LCS	0.25	20	1704421	20			20X -
F710215-BS2	DORM4	0.1256	20	1705412	125.6			400X -
F710215-BSD1	LCS Dup	0.25	20	1704421	20			20X -
F710215-DUP1	Duplicate [1709619-06]	0.276	20					100X -
F710215-MS1	Matrix Spike [1709619-06]	0.276	20	1705554	100			400X -
F710215-MS2	Matrix Spike [1709619-07]	0.266	20	1705554	100			400X -
F710215-MSD1	Matrix Spike Dup [1709619-06]	0.266	20	1705554	100			400X -
F710215-MSD2	Matrix Spike Dup [1709619-07]	0.274	20	1705554	100			400X -

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705915	5% BrCl	14-Mar-18 00:00

~~BLK 8 is run of BLK 1~~
~~BLK 9 is run of BLK 2~~

1709182
1705961
1705410
1705411

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

F710215

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709619-06	OB-05_17SN001_091517_MUM_06_WB	0.28	20	-	-	-		100X ✓
1709619-07	OB-05_17SN001_091517_MUM_07_WB	0.254	20	-	-	-		100X ✓
1709619-08	OB-05_17SN001_091517_MUM_08_WB	0.263	20	-	-	-		100X ✓
1709619-09	OB-05_17SN001_091517_MUM_09_WB	0.252	20	-	-	-		100X ✓
1709619-10	OB-05_17SN001_091517_MUM_10_WB	0.259	20	-	-	-		100X ✓
1709619-11	OB-05_17SN001_091517_MUM_11_WB	0.262	20	-	-	-		100X ✓
1709619-12	OB-05_17SN001_091517_MUM_12_WB	0.259	20	-	-	-		100X ✓
1709619-13	OB-05_17SN001_091517_MUM_13_WB	0.268	20	-	-	-		100X ✓
1709619-14	OB-05_17SN001_091517_MUM_14_WB	0.272	20	-	-	-		100X ✓
1709619-15	OB-05_17SN001_091517_MUM_15_WB	0.261	20	-	-	-		100X ✓
1709619-16	OB-05_17SN001_091517_MUM_16_WB	0.262	20	-	-	-		100X ✓
1709619-17	OB-05_17SN001_091517_MUM_17_WB	0.265	20	-	-	-		100X ✓
1709619-18	OB-05_17SN001_091517_MUM_18_WB	0.269	20	-	-	-		100X ✓
1709619-19	OB-05_17SN001_091517_MUM_19_WB	0.255	20	-	-	-		100X ✓
1709619-20	OB-05_17SN001_091517_MUM_20_WB	0.262	20	-	-	-		100X ✓
1709620-01	MMMC-01_17MT001_091817_MUM_01_WB	0.254	20	-	-	-		100X ✓
1709620-02	MMMC-01_17MT001_092017_MUM_02_WB	0.267	20	-	-	-		100X ✓
1709620-03	MMMC-01_17MT004_092017_MUM_03_WB	0.271	20	-	-	-		100X ✓
1709620-04	MMMC-01_17MT004_092017_MUM_04_WB	0.261	20	-	-	-		100X ✓

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

F710215

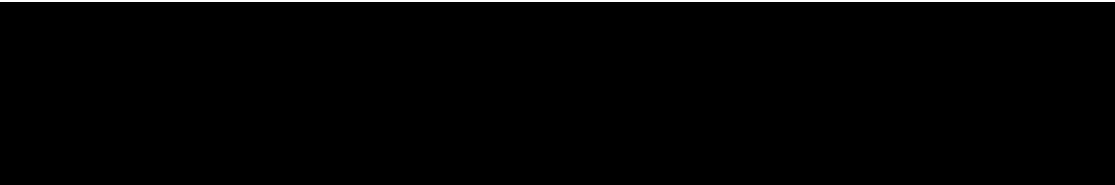
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/4/2017

1709620-07	MMMC-01_17MT003_092017_MUM_07_WB	0.2702	20	-	-	-		100X ✓
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Batch#: F710215 Date: 10/4/17

- EFAS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6, 19 (DORM 4) Calibrated? Yes No Therm.#: 40418012 Calibrated? Yes No

*Time in: 17:00 Actual Temp. (raw): 80.12 °C w/ CF: 19.7 °C

Time out: 19:00 Actual Temp. (raw): Timer °C w/ CF: Timer °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705915) Spike vol.: 100 µL (LIMS ID: 1705554)

Spike Witness: DM 10/4/17 (initial and date)

HCl LIMS ID: NA

Pipette SN#: MM11619 Calibration Date: 10/2/17

HNO₃ LIMS ID: NA

Pipette SN#: NA Calibration Date: NA

70/30 LIMS ID: 1705859

Dispenser #: 02K2749 Calibrated? Yes No

Other Acid LIMS ID: NA

Dispenser #: 15406623

Glass Vial # 00063642, Boiling Chip lot # 1702551 *Hotblock Position: M5

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> µg	CRM LIMS ID <input type="checkbox"/> NA
1	F710215 - Blk1	0.266	23	1709619 - 17	0.265	BS2 = DORM 4 LIMS: 1705402
2	F710215 - Blk2	0.253	24	1709619 - 18	0.269	
3	F710215 - Blk3	0.272	25	1709619 - 19	0.255	
4	F710215 - BS1	0.258	26	1709619 - 20	0.262	Comments
5	F710215 - BSD1	0.277	27	1709620 - 01	0.254	DUP/ms1/msD1
6	F710215 - BS2	0.256	28	1709620 - 02	0.267	source: 1709619-06
7	1709619 - 06	0.280	29	1709620 - 03	0.271	ms2/msD2
8	F710215 - DUP1	0.276	30	1709620 - 04	0.261	source: 1709619-07
9	F710215 - ms1	0.276	31	1709620 - 05	0.261	BS1/BSD1 spilled with 20µL of 1704421
10	F710215 - msD1	0.266	32	F710215 - Blk4	0.266	
11	1709619 - 07	0.254	33	F710215 - Blk5	0.258	Blk4 + 5 are Pre/Post blanks
12	F710215 - ms2	0.267	34	F710215 - Blk6	0.276	
13	F710215 - msD2	0.274	35	F710215 - Blk7	0.252	Blk6 + 7 are Pre/Post blanks for 1709620
14	1709619 - 08	0.263	36	1709620 - 08 07	0.270	
15	1709619 - 09	0.252	37			Blk6 + 7 are Pre/Post blanks for 1709620
16	1709619 - 10	0.259	38			
17	1709619 - 11	0.262	39			Blk3 does not seem to be 1/20mL Final Volume cu 10/5/17
18	1709619 - 12	0.259	40			
19	1709619 - 13	0.268	41			
20	1709619 - 14	0.272	42			
21	1709619 - 15	0.261	43			
22	1709619 - 16	0.262	44			

PREPARATION BENCH SHEET

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710291-BLK1	Blank	0.25	20					
F710291-BLK2	Blank	0.25	20					
F710291-BLK3	Blank	0.25	20					
F710291-BLK4	Blank	0.298	20					Pre-homogenization Blank for 1709630 + 1709631
F710291-BLK5	Blank	0.295	20					Post-homogenization Blank for 1709630 + 1709631
F710291-BS1	LCS	0.25	20	1704421	20			
F710291-BS2	DORM4	0.1298	20	1705412	129.8			
F710291-BSD1	LCS Dup	0.25	20	1704421	20			
F710291-DUP1	Duplicate [1709629-19]	0.28	20					
F710291-MS1	Matrix Spike [1709629-19]	0.291	20	1705554	100			
F710291-MS2	Matrix Spike [1709630-08]	0.261	20	1705554	100			
F710291-MSD1	Matrix Spike Dup [1709629-19]	0.274	20	1705554	100			
F710291-MSD2	Matrix Spike Dup [1709630-08]	0.285	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705927	70/30 Digestion Acid	02-Apr-18 00:00
			1705961	3% SnCl2 THg reductant	25-Mar-18 00:00
			1706079	5% BrCl	14-Mar-18 00:00

PREPARATION BENCH SHEET

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709629-19	ES-FP_17HC001_091917_BLM_19_WB	0.279	20	-	-	-		
1709629-20	ES-FP_17HC001_091917_BLM_20_WB	0.277	20	-	-	-		
1709630-01	ES-13_17HC001_091417_BLM_01_WB	0.29	20	-	-	-		
1709630-02	ES-13_17HC001_091417_BLM_02_WB	0.279	20	-	-	-		
1709630-03	ES-13_17HC001_091417_BLM_03_WB	0.269	20	-	-	-		
1709630-04	ES-13_17HC001_091417_BLM_04_WB	0.262	20	-	-	-		
1709630-05	ES-13_17HC001_091417_BLM_05_WB	0.277	20	-	-	-		
1709630-06	ES-13_17HC001_091417_BLM_06_WB	0.256	20	-	-	-		
1709630-07	ES-13_17HC001_091417_BLM_07_WB	0.267	20	-	-	-		
1709630-08	ES-13_17HC001_091417_BLM_08_WB	0.278	20	QC	-	-	MS/MSD	
1709630-09	ES-13_17HC001_091417_BLM_09_WB	0.277	20	-	-	-		
1709630-10	ES-13_17HC001_091417_BLM_10_WB	0.271	20	-	-	-		
1709630-11	ES-13_17HC001_091417_BLM_11_WB	0.27	20	-	-	-		
1709630-12	ES-13_17HC001_091417_BLM_12_WB	0.275	20	-	-	-		
1709630-13	ES-13_17HC001_091417_BLM_13_WB	0.285	20	-	-	-		
1709630-14	ES-13_17HC001_091417_BLM_14_WB	0.271	20	-	-	-		
1709630-15	ES-13_17HC001_091417_BLM_15_WB	0.259	20	-	-	-		
1709630-16	ES-13_17HC001_091417_BLM_16_WB	0.288	20	-	-	-		
1709630-17	ES-13_17HC001_091417_BLM_17_WB	0.254	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710291

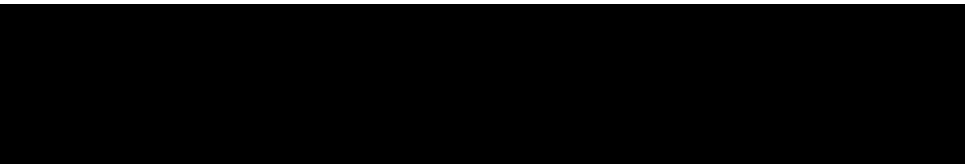
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709630-18	ES-13_17HC001_091417_BLM_18_WB	0.28	20	-	-	-		
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PREPARATION BENCH SHEET

2600-2
10/17/17 BC

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710291-BLK1	Blank	0.25	20					20x
F710291-BLK2	Blank	0.25	20					20x
F710291-BLK3	Blank	0.25	20					20x
F710291-BLK4	Blank	0.298	20					Pre-homogenization Blank for 1709630 + 1709631
F710291-BLK5	Blank	0.295	20					Post-homogenization Blank for 1709630 + 1709631
F710291-BS1	LCS	0.25	20	1704421	20			20x
F710291-BS2	DORM4	0.1298	20	1705412	129.8			400x
F710291-BSD1	LCS Dup	0.25	20	1704421	20			20x
F710291-DUP1	Duplicate [1709629-19]	0.28	20					100x
F710291-MS1	Matrix Spike [1709629-19]	0.291	20	1705554	100			400x
F710291-MS2	Matrix Spike [1709630-08]	0.261	20	1705554	100			400x
F710291-MSD1	Matrix Spike Dup [1709629-19]	0.274	20	1705554	100			400x
F710291-MSD2	Matrix Spike Dup [1709630-08]	0.285	20	1705554	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00
1705412	DORM-4	06-Jan-20 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705927	70/30 Digestion Acid	02-Apr-18 00:00
1706079	5% BrCl	14-Mar-18 00:00

20x = 2.5 mL
~~40x =~~
 100x = 500 µL
 400x = 125 µL

1705610
 1705611
 1705961
 1703182

2600-2
10/17/17 JCL

PREPARATION BENCH SHEET

F710291

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709629-19	ES-FP_17HC001_091917_BLM_19_WB	0.279	20	-	-	-	100X -	
1709629-20	ES-FP_17HC001_091917_BLM_20_WB	0.277	20	-	-	-	100X -	
1709630-01	ES-13_17HC001_091417_BLM_01_WB	0.29	20	-	-	-	100X -	
1709630-02	ES-13_17HC001_091417_BLM_02_WB	0.279	20	-	-	-	100X -	
1709630-03	ES-13_17HC001_091417_BLM_03_WB	0.269	20	-	-	-	100X -	
1709630-04	ES-13_17HC001_091417_BLM_04_WB	0.262	20	-	-	-	100X -	
1709630-05	ES-13_17HC001_091417_BLM_05_WB	0.277	20	-	-	-	100X -	
1709630-06	ES-13_17HC001_091417_BLM_06_WB	0.256	20	-	-	-	100X -	
1709630-07	ES-13_17HC001_091417_BLM_07_WB	0.267	20	-	-	-	100X -	
1709630-08	ES-13_17HC001_091417_BLM_08_WB	0.278	20	QC	-	-	MS/MSD 100X -	
1709630-09	ES-13_17HC001_091417_BLM_09_WB	0.277	20	-	-	-	100X -	
1709630-10	ES-13_17HC001_091417_BLM_10_WB	0.271	20	-	-	-	100X -	
1709630-11	ES-13_17HC001_091417_BLM_11_WB	0.27	20	-	-	-	100X -	
1709630-12	ES-13_17HC001_091417_BLM_12_WB	0.275	20	-	-	-	100X -	
1709630-13	ES-13_17HC001_091417_BLM_13_WB	0.285	20	-	-	-	100X -	
1709630-14	ES-13_17HC001_091417_BLM_14_WB	0.271	20	-	-	-	100X -	
1709630-15	ES-13_17HC001_091417_BLM_15_WB	0.259	20	-	-	-	100X -	
1709630-16	ES-13_17HC001_091417_BLM_16_WB	0.288	20	-	-	-	100X -	
1709630-17	ES-13_17HC001_091417_BLM_17_WB	0.254	20	-	-	-	100X -	

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2
10/17/17B

F710291

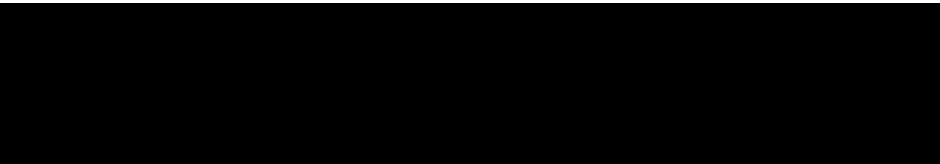
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/10/2017

1709630-18	ES-13_17HC001_091417_BLM_18_WB	0.28	20	-	-	-	100%	
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Technician: wf Batch#: F710291 Date: 10/12/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19 (DORM) Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 18:10 Actual Temp. (raw): 72.0 °C w/ CF: 71.7 °C
 Time out: 9:45 Actual Temp. (raw): 80.0 °C w/ CF: 79.3 °C 79.7 °C

*Time in can't begin before target temperature is reached
 Final vol.: 20 mL (LIMS ID: 1706079) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: DM 10/12/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: M11619 Calibration Date: 10/9/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1706064 Dispenser #: 0262749 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406523 JYS
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: A3

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710291 - Blk1	0.266	23	1709630 - 10	0.271	BS2=DORM
2	F710291 - Blk2	0.261	24	1709630 - 11	0.270	LIMS: 1705412
3	F710291 - Blk3	0.259	25	1709630 - 12	0.275	Balance: 19
4	F710291 - BSI	0.261	26	1709630 - 13	0.285	Comments
5	F710291 - BSD1	0.283	27	1709630 - 14	0.271	BSI/BSD1 spiked
6	F710291 - BS2	0.1298	28	1709630 - 15	0.259	with 20µl of
7	1709629 - 19	0.279	29	1709630 - 16	0.288	1704421
8	F710291 - DUP1	0.280	30	1709630 - 17	0.254	DUP1/MS1/MSD1
9	F710291 - MS1	0.291	31	1709630 - 18	0.280	source: 1709629-19
10	F710291 - MSD1	0.274	32			MS2/MSD2
11	1709629 - 20	0.277	33			source: 1709629-20
12	1709630 - 01	0.290	34			1709630-08 wf 10/12/17
13	1709630 - 02	0.279	35			* Blk 4+5 Pre/Post
14	1709630 - 03	0.269	36			blanks for 1709630, 1709630
15	1709630 - 04	0.262	37			added 10/12/17 wf.
16	1709630 - 05	0.277	38			
17	1709630 - 06	0.256	39			5% BrCl added by
18	1709630 - 07	0.267	40			AMB.
19	1709630 - 08	0.278	41			*AMB 10/13/17
20	F710291 - MS2	0.261	42			
21	F710291 - MSD2	0.285	43			
22	1709630 - 09	0.277	44			

* 32 F710291 - Blk4 (0.298) wf 10/12/17 * 33 F710291 - Blk5 (0.295) wf 10/12/17

ANALYSIS SEQUENCE

QUALITY ASSURANCE

PEER-REVIEWED

7J18019

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *pc 10/19/17*
Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18019-IBL1	QC	1			
7J18019-IBL2	QC	2			
7J18019-IBL3	QC	3			
7J18019-CAL1	QC	4	1704505	✓	
7J18019-CAL2	QC	5	1704506	✓	
7J18019-CAL3	QC	6	1704507	✓	
7J18019-CAL4	QC	7	1704508	✓	
7J18019-CAL5	QC	8	1704509	✓	
7J18019-ICV1	QC	9	1705628	✓	
7J18019-CCV1	QC	10	1705628	✓	
7J18019-CCB1	QC	11			
7J18019-CCV2	QC	12	1705628	✓	
7J18019-CCB2	QC	13			
7J18019-CCV3	QC	14	1705628	✓	
7J18019-CCB3	QC	15			
7J18019-CCV4	QC	16	1705628	✓	
7J18019-CCB4	QC	17			
7J18019-CCV5	QC	18	1705628	✓	
7J18019-CCB5	QC	19			
7J18019-CCV6	QC	20	1705628	✓	
7J18019-CCB6	QC	21			
7J18019-CCV7	QC	22	1705628	✓	
7J18019-CCB7	QC	23			
7J18019-CCV8	QC	24	1705628	✓	
7J18019-CCB8	QC	25			
F710351-BLK1	QC	26			
F710351-BLK2	QC	27			
F710351-BS1	QC	28			
F710351-BSD1	QC	29			
7J18019-CCV9	QC	30	1705628	✓	
7J18019-CCB9	QC	31			
1710455-01	Hg-CVAFS-S-Bomb	32			QG00L-1 - Prep 2.0-2.15 grams
1710458-01	Hg-CVAFS-S-Bomb	33			QG00L-1 - Prep 2.0-2.15 grams
F710351-DUP1	QC	34			
F710351-MS1	QC	35			

ANALYSIS SEQUENCE

7J18019

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F710351-MSD1 ✓	QC	36			
7J18019-CCVA ✓	QC	37	1705628	✓	
7J18019-CCBA ✓	QC	38			

[Signature] 10/18/17
Samples Loaded By Date

[Signature] 10/18/17
Data Processed By Date

10/17/17
B.P.O.1

Failing Data Report - 7J18019

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
-----------	----------	--------	-----	---------------	------------------	---------------	-------	--------	-------------	-------------	-----	--------------	----------	---------	-----------

Be cing 10/18/17
Analyst Reviewed By Date

[Signature] 12/19/17
Peer Reviewed By Date

PREPARATION BENCH SHEET

F710351

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710351-BLK1	Blank	0.5	50					
F710351-BLK2	Blank	0.5	50					
F710351-BS1	LCS	0.5	50	1705879	50			
F710351-BSD1	LCS Dup	0.5	50	1705879	50			
F710351-DUP1	Duplicate [1710458-01]	2.0436	50					
F710351-MS1	Matrix Spike [1710458-01]	2.0093	50	1705879	50			
F710351-MSD1	Matrix Spike Dup [1710458-01]	2.0268	50	1705879	50			

Standard ID(s): 1705879
Description: EFGS-PREPSPIKE1/2, plus Hg

Expiration: 02-Jan-18 00:00

Reagent ID(s):
 1703182
 1705610
 1705611
 1705679
 1705961

Description:
 25% Hydroxylamine-HCl working solution
 THg Washstation (0.5% BrCl)
 THg Dilute 1% BrCl
 Fisher Nitric Acid, Tracemetal Grade
 3% SnCl2 THg reductant

Expiration:
 24-Nov-17 00:00
 22-Jan-18 00:00
 15-Mar-19 00:00
 25-Mar-18 00:00

PREPARATION BENCH SHEET

F710351

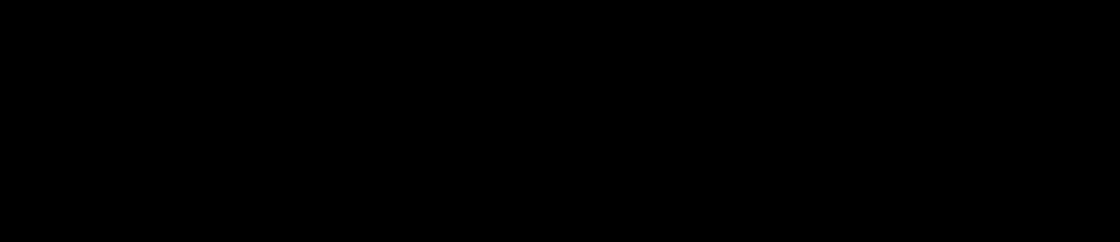
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710455-01	740-2017-10120001 EUUSBO2-00094885	2.04	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	
1710458-01	740-2017-10120002 EUUSBO2-00094886	2.0943	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	



Sample Preparation Review Checklist

Revision: 3
Effective: Dec. 5, 2013

Technician/Date: MMP 10/13/2017 Samples to lab: 1630 Batch #: F710357
 Upload/Date: MMP 10/13/2017 Reviewer/Date: _____

- EFGS Preparation Method**
- FGS-032 Co-APDC
 - FGS-052 Oven Digestion (Total Recoverable Metals) ICPMS AFS
 - FGS-058 Nitric Digestion ICPMS CVAFS
 - FGS-084 Modified Aqua Regia (Ag, Sb only)
 - FGS-108 Cr+6 Sediments/Tissues
 - FGS-109 RP
 - FGS-111 HF Bomb Digestion ICPMS CVAFS
 - FGS-141 Nitric Bomb Digestion ICPMS CVAFS
 - FGS-145 Oven Digestion (As, Se Speciation) As Se
 - FGS-146 Microwave Digestion (Nutraceuticals)
 - FGS-146 Microwave Digestion (CPSC-Metal)
 - FGS-146 Microwave Digestion (CPSC-Non-Metal/Paint)
 - FGS-149 Oven Digestion (Aqueous Nutraceuticals)
 - NA Other:

Initials	SOP Date	DOC Date
<u>MMP</u>	<u>2/4/2017</u>	<u>12/23/2016</u>
_____	_____	_____
_____	_____	_____

Comments: _____

Conditionally formatted training files located at:
 \\us34file\General and Admin\Quality Assurance\Training\Training Master
 (Contact QA for any problems regarding these training files.)

Analytes: Hg

- | | Reviewer Initials | Tertiary Review |
|---|-------------------|-----------------|
| 1. Is any SOP/DOC expiring within one week of Submission Date? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <u>DM</u> | <u>R</u> |
| Data cannot be reported without a current IDOC/CDOC. If YES, notify supervisor and technician immediately. | | |
| 2. Check prep method <input checked="" type="checkbox"/> YES | <u>DM</u> | <u>R</u> |
| (a) For Ceuticals: Is correct Hg code being used in LIMS? <input type="checkbox"/> ICPMS <input checked="" type="checkbox"/> CV-AFS <input type="checkbox"/> 70:30 <input type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| 3. Compare sample ID with benchsheet <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| 4. Verify time of submission? (if not met please explain in the comments) <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| (a) Oven bomb - digestion start time before 14:00? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| (b) Microwave - submitted to the lab before 16:00? <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| 5. Check for transcription errors from benchsheet <input checked="" type="checkbox"/> YES | <u>DM</u> | <u>R</u> |
| (a) Check and compare initial and final volumes <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| (b) Check and compare mass <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| (c) Has the number of pills been documented (benchsheet and LIMS)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| (d) Benchsheet prep date MUST match actual prep date <input checked="" type="checkbox"/> YES | <u>DM</u> | <u>R</u> |
| 6. Samples per Batch? Check QC Requirements <input type="checkbox"/> ≤ 20 <input checked="" type="checkbox"/> ≤ 10 | <u>DM</u> | <u>R</u> |
| (a) PBs per batch? <input type="checkbox"/> 3 PBs <input checked="" type="checkbox"/> 2 PB <input type="checkbox"/> 1 PB | <u>DM</u> | <u>R</u> |
| (b) BS, BS/BSD or CRM in batch? <input type="checkbox"/> BS <input checked="" type="checkbox"/> BS/BSD <input type="checkbox"/> CRM | <u>DM</u> | <u>R</u> |
| (c) MS/MSD in batch? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| (d) MD in batch? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| (e) Client specific WO #'s: _____ <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| (f) Are there any client specific requests and/or alterations? <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| Document: _____ | | |
| (g) Correct LIMS spike ID included for BS, BS/BSD and/or MS/MSD? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| (h) Correct 'source' designated for MD/MS/MSD? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| (i) For EFGS-filtered samples, was a filtration blank included? <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| 7. Are the samples appropriately spiked? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| (a) Is the spike and amount used appropriate and entered into LIMS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| (b) For IDOCs, was there a spike witness? (initials <u>must</u> be in logbook) <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |
| (c) Spikes added: <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A | <u>DM</u> | <u>R</u> |

NOTE: Due to LIMS software constraints, new LIMS IDs need to be created when multiple/ supplemental spikes are used. Enter new LIMS ID below and use table to list all spikes included in it.

Spike LIMS ID : 1705879

Spike Name	LIMS ID	μL	Spike Name	LIMS ID	μL
<u>Pyrophosphate</u>	<u>1703595</u>	<u>50</u>			
<u>Pyrophosphate 2</u>	<u>1703596</u>	<u>50</u>			
<u>T.Hg</u>	<u>1705876</u>	<u>50</u>			

PREPARATION BENCH SHEET

2000-2
10/18/17 BC
17

F710351

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710351-BLK1	Blank	0.5	50					50X -
F710351-BLK2	Blank	0.5	50					50X -
F710351-BS1	LCS	0.5	50	1705879	50			400X -
F710351-BSD1	LCS Dup	0.5	50	1705879	50			400X -
F710351-DUP1	Duplicate [1710458-01]	2.0436	50					50X -
F710351-MS1	Matrix Spike [1710458-01]	2.0093	50	1705879	50			400X -
F710351-MSD1	Matrix Spike Dup [1710458-01]	2.0268	50	1705879	50			400X -

Standard ID(s): 1705879
Description: EFGS-PREP SPIKE1/2, plus Hg

Expiration: 02-Jan-18 00:00

Reagent ID(s): 1705679
Description: Fisher Nitric Acid, Tracemetal Grade

Expiration: 15-Mar-19 00:00

50X = 1ml
400X = 125ul

1705610
1705611
1705961
1703182

PREPARATION BENCH SHEET

2600-2
10/17/17 BC

F710351

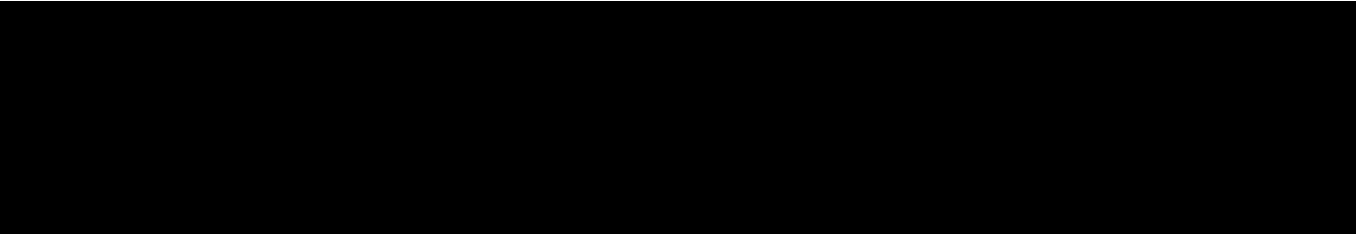
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/13/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710455-01	740-2017-10120001 EUUSBO2-00094885	2.04	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	SOX -
1710458-01	740-2017-10120002 EUUSBO2-00094886	2.0943	50	-	See COC	-	MSM, Powder QG00L-1 - Prep 2.0-2.1	SOX -



Ceutical Digestions

Batch ~~TM~~ / (Hg (circle one)): F710349/35/334 Boiling Chip Lot # 2256A004

Batch continued on next page? Yes No

1° Tech.: MMP 2° Tech.: NA Date/Time In: 10/13/2017 1630

Date/Time Out: 10/14/2017 1030 by Timer

Spiked By: MMP Spike Witness (SW): W

Final Vol. (mL)/Initials/Date:
50 MMP 10/16/2017

Balance ID/Cal.?(Y/N): 90 / 10/13/2017

Digestion: Oven ID: OVN-02 Other ID: _____

Vial Type: 50 mL Centrifuge Tube Teflon

Analysis: ICP-MS CV-AFS
 LC-ICP-MS Other: _____

Thermometer ID: 1312060130 Initial: Temp. (°C): 160 / 157.1 / 157.4
target raw corrected

Final: Temp. (°C): 160 / TIMER
target raw corrected

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (<input checked="" type="checkbox"/> g <input type="checkbox"/> mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
1	NA	X047	F710349-BUK1	D	0.5432	Ben Chips (BC)	/	
2	NA	X114	F710349-BUK2	D	0.6464	BC	/	
3	N4106	T11001	F710349-B51	D	0.6977	BC	/	
4	X196	X066	F710349-BSD1	D	0.7932	BC	/	
5	NA	N428	M10375-03	A	1.0572	Powder (P)	/	
6	NA	X1106	M10375-03DUP1	A	1.0316	P	/	
7	NA	X069	M10375-03MS112	A	1.0054	P	/	
8	N459	N380	M10375-03MSD1	A	1.0447	P	/	
9	X142	N378	M10443-01	A	1.2988	Food (F)	/	

Initials: MMP

Spike Name	SW	Volume (µL)	LIMS ID	Pipette ID	Cal. Date
Prep Spike 1	<input checked="" type="checkbox"/>	50	1703595	512664	10/11/2017
Prep Spike 2	<input checked="" type="checkbox"/>	50	1703596		
TH ₂	<input checked="" type="checkbox"/>	50	1705878		
	<input type="checkbox"/>				
	<input type="checkbox"/>				

Preparation Method SOP: EFGS-141		
Reagent	Volume (mL)	LIMS ID
HNO ₃	7.5	1705679

1 Combined Spike ID: _____ ; Batches: F710334/349/351
2 Combined Spike ID: _____ ; Batches: _____

Batch continued on next page? Yes No

Ceutical Digestions

Batch (TM / Hg) (circle one): F710334/351

Boiling Chip Lot # 27569094

Batch continued on next page? Yes No

1° Tech.: _____ 2° Tech.: _____ Date/Time In: _____

Date/Time Out: _____

Spiked By: _____ Spike Witness (SW): _____

Final Vol. (mL)/Initials/Date: _____

Balance ID/Cal.? (Y/N): _____

Digestion: Oven ID: _____ Other ID: _____

Vial Type: 50 mL Centrifuge Tube Teflon

Analysis: ICP-MS CV-AFS

LC-ICP-MS Other: _____

Thermometer ID: _____ Initial: Temp. (°C): _____

target raw corrected

Final: Temp. (°C): _____

target raw corrected

See Pg 197

MMP 10/13/2017

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (<input type="checkbox"/> g <input type="checkbox"/> mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
1	NA	TH016	F710334-BLK1	D	0.6022	Beal Chips (BL)	/	
2	NA	X073	F710334-BLK2	D	0.9-0.6963	BC	/	
3	NA	X075	F710334-BS1	D	0.6246	BC	/	
4	NA	N442	F710334-BSD1	D	0.5916	BC	/	
5	NA	X117	M10456-01	A	2.0943	Powder (P)	/	
6	N382	TH031	M10456-01DUP1	A	2.0436	P	/	
7	NA	X168	M10456-01MS1	A	2.0093	P	/	
8	NA	TH058	M10456-01MSD1	A	2.0268	P	/	
9	NA	N355	M10457-01	A	0.5502	0.1107	/	

See Pg 197

Initials: *MMP*

Spike Name	SW	Volume (µL)	LIMS ID	Pipette ID	Cal. Date
	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				

Preparation Method SOP: EFGS-		
Reagent	Volume (mL)	LIMS ID

MMP 10/13/2017

1 Combined Spike ID: _____ ; Batches: _____

2 Combined Spike ID: _____ ; Batches: _____

Batch continued on next page? Yes No

Ceutical Digestions

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount (□g □mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
10	NA	X111	1710452-01MSDZ	A	0.6656	O	/	
11	NA	N432	1710452-01MSDZ	A	0.5821	O	/	
12	X165	X022	1709717-01RE1	B	1.2623	Food (F)	/	
13	NA	X181	1709717-02RE1	B	1.1042	F	/	
14	TH058	X179	1709717-03RE1	B	1.0494	F	/	Dry MPP 10/16/2017
15	NA	X006	1709717-04RE1	B	1.0970	F	/	
16	NA	N379	1709717-05	B	1.0420	F	/	
17	NA	N367	1709717-06RE1	B	1.0867	F	/	
18	NA	N424	1709717-07RE1	B	1.0337	F	/	
19	NA	N365	1709717-08RE1	B	1.1661	F	/	
20	TH036	TH056	1709761-06RE1	A	1.1411	1 cap.	/	
21	X188	N387	1709761-01RE1	A	0.9479	1 cap.	/	
22	NA	N390	1709778-01RE1	A	0.8742	1 cap.	/	
23	NA	TH021	1709780-03RE1	B	1.2636	F	/	
24	NA	X174	1710453-01	A	0.5158	Gel	/	Dry MPP 10/16/2017
25	NA	N459	1710455-01	A	2.0400	P	/	
26	NA	N416	1710459-01	A	0.5450	Cream (C)	/	
27	NA	X105	1710459-02	A	0.6186	C	/	
28	X192	TH005	1710459-03	A	0.5606	MPP 10/13/2017 Gel	/	
29	NA	X090	1710461-01	A	0.5830	C	/	
30								
31								
32								
33								
34								

Initials: MPP

Density by EFGS-019

Required? Yes No

Batch ID: _____

Density = [(D-C)/B]

A: Sample ID / Flask ID	B: Volume (mL)	C: Flask mass (g)	D: Flask + sample (g)	Density (g/mL)
/				
/				
/				
/				

ANALYSIS SEQUENCE

QUALITY ASSURANCE
PEER-REVIEWED

7J18021

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R* 10/10/17
Analyzed: 10/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J18021-IBL1 ✓	QC	1			
7J18021-IBL2 ✓	QC	2			
7J18021-IBL3 ✓	QC	3			
7J18021-CAL1 ✓	QC	4	1704505 ✓		
7J18021-CAL2 ✓	QC	5	1704506 ✓		
7J18021-CAL3 ✓	QC	6	1704507 ✓		
7J18021-CAL4 ✓	QC	7	1704508 ✓		
7J18021-CAL5 ✓	QC	8	1704509 ✓		
7J18021-ICV1 ✓	QC	9	1705628 ✓		
F710376-BLK1 ✓	QC	10			
F710376-BLK2 ✓	QC	11			
F710376-BLK3 ✓	QC	12			
F710376-BLK4 ✓	QC	13			
F710376-BLK5 ✓	QC	14			
F710376-BLK6 ✓	QC	15			
1710146-01 ✓	Hg-CVAFS-W-1631-WI DNR	16			
1710146-02 ✓	Hg-CVAFS-W-1631-WI DNR	17			
1710329-01 ✓	Hg-CVAFS-W-1631-WI DNR	18			
1710329-02 ✓	Hg-CVAFS-W-1631-WI DNR	19			
7J18021-CCV1 ✓	QC	20	1705628 ✓		
7J18021-CCB1 ✓	QC	21			
F710376-BS1 ✓	QC	22			
F710376-BSD1 ✓	QC	23			
F710376-DUP1 ✓	QC	24			
F710376-MS1 ✓	QC	25			
F710376-MSD1 ✓	QC	26			
7J18021-CCV2 ✓	QC	27	1705628 ✓		
7J18021-CCB2 ✓	QC	28			

Becky 10/18/17 *Becky* 10/18/17
 Samples Loaded By Date Data Processed By Date

10/17/17
2:00

PREPARATION BENCH SHEET

F710376

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710376-BLK1	Blank	100	101					Source: 1710146-03
F710376-BLK2	Blank	100	101					Source: 1710146-03
F710376-BLK3	Blank	100	101					Source: 1710146-03
F710376-BLK4	Blank	100	101					Source: 1710329-03
F710376-BLK5	Blank	100	101					Source: 1710329-03
F710376-BLK6	Blank	100	101					Source: 1710329-03
F710376-BS1	LCS	50	50.5	1705054	100			
F710376-BSD1	LCS Dup	50	50.5	1705054	100			
F710376-DUP1	Duplicate [1710329-01] ✓	100	101					
F710376-MS1	Matrix Spike [1710329-01] ✓	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL ✓
F710376-MSD1	Matrix Spike Dup [1710329-01] ✓	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL ✓

<u>Standard ID(s):</u>	<u>Description:</u>
1704422	THg 10ng/mL Calibration Standard
1705054	Nist 1641D 200X

<u>Expiration:</u>
21-Oct-17 00:00
21-Aug-18 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705580	0.2 N BRCL SEPTEMBER 2017	14-Mar-18 00:00
1705610	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
1705961	3% SnCl2 THg reductant	25-Mar-18 00:00

PREPARATION BENCH SHEET

F710376

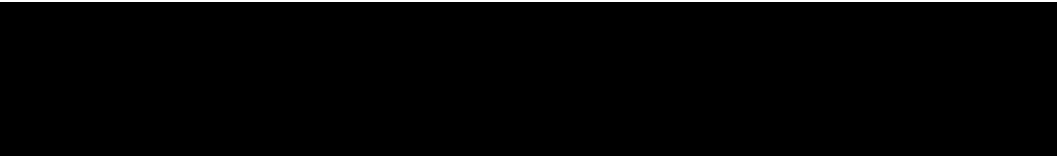
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710146-01	1710047-03 Monthly Effluent Mercury	100	101	-	-	-	Preservation Blank Created	
1710146-02	1710047-04 Monthly Effluent Mercury Blank	100	101	-	-	-	Preservation Blank Created	
1710329-01	1710150-01 Johnson Controls Outfall-Hg	100	101	-	-	-	Preservation Blank created	
1710329-02	1710150-02 Johnson Controls Outfall-Hg (Blank)	100	101	-	-	-	Preservation Blank created	



PREPARATION BENCH SHEET

2000-2
10/17/17 BC

F710376

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710376-BLK1	Blank	100	101					1710146-013 IX
F710376-BLK2	Blank	100	101					IX
F710376-BLK3	Blank	100	101					IX
F710376-BLK4	Blank	100	101					1710329-013 IX
F710376-BLK5	Blank	100	101					IX
F710376-BLK6	Blank	100	101					IX
F710376-BLK7	Blank	100	101					1710329
F710376-BLK8	Blank	100	101					
F710376-BLK9	Blank	100	101					
F710376-BS1	LCS	100	101	1705054	100			IX
F710376-BSD1	LCS Dup	100	101	1705054	100			IX
F710376-DUP1	Duplicate 1710329 01	100	101					IX
F710376-MS1	Matrix Spike 1710329 01	100	101	1704422	25			IX
F710376-MSD1	Matrix Spike Dup 1710329 01	100	101	1704422	25			IX

Standard ID(s): Description:

Expiration:

IX = 50 mL

1705610
1705611
1705461
1703102

PREPARATION BENCH SHEET

2600-2

10/17/17 BC

F710376

Eurofins Frontier Global Sciences, Inc.

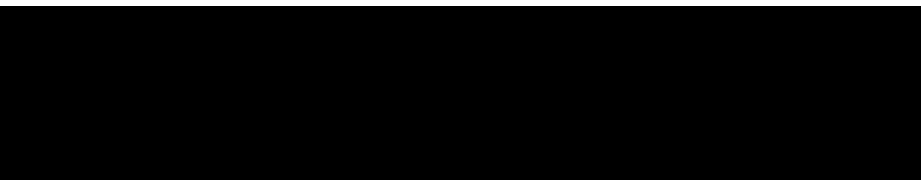
Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 10/17/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710146-01	1710047-03 Monthly Effluent Mercury	100	101	-	-	-	Preservation Blank Created	IX
1710146-02	1710047-04 Monthly Effluent Mercury Blank	100	101	-	-	-	Preservation Blank Created	IX
1710329-01	1710150-01 Johnson Controls Outfall-Hg	100	101	-	-	-	Preservation Blank created	IX
1710329-02	1710150-02 Johnson Controls Outfall-Hg (Blank)	100	101	-	-	-	Preservation Blank created	IX
1710388-01	1710188-01 Mayfair Semi-Annual	100	101	-	-	-	Preservation Blank Created	
1710388-02	1710188-02 Mayfair Semi-Annual - Blank	100	101	-	-	-	Preservation Blank Created	

010302
|
030206
|
010602
|
|



Total Mercury Preservation Logbook

cop 10/4/17

Initial preservation and/or verification

Technician: CSP Date: 10/4/17 Time Completed: 1730

Work Orders: ~~1710142~~ 1710142
1710143, 1710146

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1705580

Pipette SN: 507631

Cal. Date: 10/4/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710143-01A	300	3.00	y			
1710143-02A	300	3.00	y			
1710143-03A	300	3.00	y			
1710143-04A	300	3.00	y			
1710143-05A	300	3.00	y			
1710143-06A	300	3.00	y			
1710143-07A	300	3.00	y			
1710142-01A	300	3.00	y			
1710142-02A	300	3.00	y			
1710142-03A	300	3.00	y			
1710142-04A	300	3.00	y			
1710142-05B	10	10	y			
1710142-06A	300	3.00	y			
1710146-01A	300	3.00	y			
1710146-02A	300	3.00	y			
1710146-03A	300	3.00	y			
CSP 10/4/17						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
10/5/17 DM

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 10/11/17 Time Completed: 19:00

Work Orders: 1710328
1710324, 1710329, 1710276

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1705580

Pipette SN: 307631

Cal. Date: 10/9/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1710328-24A	250	2.50	Y			
1710324-01A	250	2.50	Y			
1710329-01A	300	3.00	Y			
1710329-02A	300	3.00	Y			
1710329-03A	300	3.00	Y			
1710276-01A	600	6.00	Y			
1710276-02A	600	6.00+6.00	Y			
1710276-03A	600	6.00	Y			
LM 10/11/17						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J18019, 7J18020, 7J18021
Reviewer: 0 <i>PL 10/18/17</i>	Dataset ID(s): THg26002-171017-1
Date: 10/18/2017	WO (s) #: 0
Batch #(s): F710376, F710215, F710291, F710351	0

Analyst Initials BC Reviewer Initials PL 10/18/17

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF ($\leq 15\%$) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J18019, 7J18020, 7J18021
Reviewer: 0 <i>R 10/10/17</i>	Dataset ID(s): THg26002-171017-1
Date: 10/18/2017	WO (s) #: 0
Batch #(s): F710376, F710215, F710291, F710351	0

Analyst Initials BC **Reviewer Initials** R 10/10/17

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs

- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/11/17, 1/27/17 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 7/28/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 7/28/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.



Frontier Global Sciences

THg26002-171009-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 09, 2017
Instrument #: Hg2600-2
LIMS Sequence #: 7J10017

Analyst: BC
Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	107.86 units	215.72	100.21 units	200.41	102.5 %Rec
SEQ-CAL2	1	1.00 ng/L	209.79 units	209.79	202.14 units	202.14	103.4 %Rec
SEQ-CAL3	1	5.00 ng/L	985.66 units	197.13	978.01 units	195.60	100.0 %Rec
SEQ-CAL4	1	20.00 ng/L	3796.53 units	189.83	3788.88 units	189.44	96.9 %Rec
SEQ-CAL5	1	40.00 ng/L	7608.06 units	190.20	7600.41 units	190.01	97.2 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
195.52	+/- 5.81	3.0% RSD	200.53

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	7.65 units	±2.69	0.04 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.184 ng/L	±0.932
BLK	2	3	0.958 ng/L	±0.098
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: DM 10/10/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-2	BC	CAL	SEQ-IBL1	1	10/9/2017 10:10:03	86821-1.RAW	10:10:03 AM	7.50							
Hg2600-2	BC	CAL	SEQ-IBL2	1	10/9/2017 10:14:12	86822-1.RAW	10:14:12 AM	10.42			-0.2	-0.001	-0.001	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	10/9/2017 10:18:20	86823-1.RAW	10:18:20 AM	5.04			2.8	0.014	0.014	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	10/9/2017 10:22:28	86824-1.RAW	10:22:28 AM	107.86			-2.6	-0.013	-0.013	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	10/9/2017 10:26:37	86825-1.RAW	10:26:37 AM	209.79			100.2	0.513	0.513	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	10/9/2017 10:30:45	86826-1.RAW	10:30:45 AM	985.66			202.1	1.034	1.034	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	10/9/2017 10:34:54	86827-1.RAW	10:34:54 AM	3796.53			978.0	5.002	5.002	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	10/9/2017 10:39:02	86828-1.RAW	10:39:02 AM	7608.06			3788.9	19.378	19.378	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	10/9/2017 10:43:11	86829-1.RAW	10:43:11 AM	982.52			7600.4	38.873	38.873	ng/L	
Hg2600-2	BC	BLK	F710226-BLK1	20	10/9/2017 10:47:36	86830-1.RAW	10:47:36 AM	29.27			974.9	4.986	4.986	ng/L	
Hg2600-2	BC	BLK	F710226-BLK2	20	10/9/2017 10:51:44	86831-1.RAW	10:51:44 AM	16.89	1		21.6	0.111	2.211	ng/L	
Hg2600-2	BC	BLK	F710226-BLK3	20	10/9/2017 10:55:53	86832-1.RAW	10:55:53 AM	11.51	1		9.2	0.047	0.945	ng/L	
Hg2600-2	BC	SAM	*F710226-BLK4	20	10/9/2017 11:00:01	86833-1.RAW	11:00:01 AM	15.96	1		3.9	0.020	0.395	ng/L	
Hg2600-2	BC	SAM	*F710226-BLK5	20	10/9/2017 11:04:10	86834-1.RAW	11:04:10 AM	17.97	1		8.3	-0.017	-0.334	ng/L	
Hg2600-2	BC	SAM	*F710226-BLK6	20	10/9/2017 11:08:18	86835-1.RAW	11:08:18 AM	11.51	1		10.3	-0.006	-0.128	ng/L	
Hg2600-2	BC	SAM	*F710226-BLK7	20	10/9/2017 11:12:27	86836-1.RAW	11:12:27 AM	16.19	1		3.9	-0.039	-0.789	ng/L	
Hg2600-2	BC	SAM	F710226-BS1	20	10/9/2017 11:16:35	86837-1.RAW	11:16:35 AM	1028.07	1		8.5	-0.016	-0.310	ng/L	
Hg2600-2	BC	SAM	F710226-BSD1	20	10/9/2017 11:20:44	86838-1.RAW	11:20:44 AM	1022.75	1		1020.4	5.160	103.196	ng/L	
Hg2600-2	BC	SAM	F710226-BS2	400	10/9/2017 11:24:52	86839-1.RAW	11:24:52 AM	992.61	1		1015.1	5.133	102.652	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	10/9/2017 11:29:01	86840-1.RAW	11:29:01 AM	938.92	1		985.0	5.035	2013.856	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	10/9/2017 11:33:09	86841-1.RAW	11:33:09 AM	15.99			931.3	4.763	4.763	ng/L	
Hg2600-2	BC	SAM	1709620-06	400	10/9/2017 11:37:18	86842-1.RAW	11:37:18 AM	696.10	1		8.3	0.043	0.043	ng/L	
Hg2600-2	BC	SAM	1709620-08	400	10/9/2017 11:41:26	86843-1.RAW	11:41:26 AM	695.70	1		688.4	3.518	1407.251	ng/L	
Hg2600-2	BC	SAM	1709620-09	400	10/9/2017 11:45:34	86844-1.RAW	11:45:34 AM	574.94	1		688.0	3.516	1406.433	ng/L	
Hg2600-2	BC	SAM	1709620-10	400	10/9/2017 11:49:43	86845-1.RAW	11:49:43 AM	1433.30	1		567.3	2.898	1159.380	ng/L	
Hg2600-2	BC	SAM	1709620-11	400	10/9/2017 11:53:51	86846-1.RAW	11:53:51 AM	601.47	1		1425.6	7.289	2915.426	ng/L	
Hg2600-2	BC	SAM	1709620-12	400	10/9/2017 11:58:00	86847-1.RAW	11:58:00 AM	482.22	1		593.8	3.034	1213.656	ng/L	
Hg2600-2	BC	SAM	1709620-13	400	10/9/2017 12:02:08	86848-1.RAW	12:02:08 PM	658.96	1		474.6	2.424	969.692	ng/L	
Hg2600-2	BC	SAM	1709620-14	400	10/9/2017 12:06:17	86849-1.RAW	12:06:17 PM	930.75	1		651.3	3.328	1331.270	ng/L	
Hg2600-2	BC	SAM	1709620-15	400	10/9/2017 12:10:25	86850-1.RAW	12:10:25 PM	923.15	1		923.1	4.718	1887.302	ng/L	
Hg2600-2	BC	SAM	1709620-16	400	10/9/2017 12:14:34	86851-1.RAW	12:14:34 PM	473.71	1		915.5	4.679	1871.754	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	10/9/2017 12:18:42	86852-1.RAW	12:18:42 PM	961.95	1		466.1	2.381	952.282	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	10/9/2017 12:22:50	86853-1.RAW	12:22:50 PM	11.21			954.3	4.881	4.881	ng/L	
Hg2600-2	BC	SAM	1709620-17	400	10/9/2017 12:26:59	86854-1.RAW	12:26:59 PM	977.31	1		3.6	0.018	0.018	ng/L	
Hg2600-2	BC	SAM	1709620-18	400	10/9/2017 12:31:07	86855-1.RAW	12:31:07 PM	791.53	1		969.7	4.956	1982.555	ng/L	
Hg2600-2	BC	SAM	1709620-19	400	10/9/2017 12:35:16	86856-1.RAW	12:35:16 PM	700.72	1		783.9	4.006	1602.483	ng/L	
Hg2600-2	BC	SAM	1709620-20	400	10/9/2017 12:39:24	86857-1.RAW	12:39:24 PM	1720.43	1		693.1	3.542	1416.703	ng/L	
Hg2600-2	BC	SAM	1709621-01	400	10/9/2017 12:43:33	86858-1.RAW	12:43:33 PM	426.30	1		1712.8	8.757	3502.841	ng/L	
Hg2600-2	BC	SAM	1709621-02	400	10/9/2017 12:47:41	86859-1.RAW	12:47:41 PM	138.68	1		418.6	2.138	855.290	ng/L	
Hg2600-2	BC	SAM	1709621-03	400	10/9/2017 12:51:50	86860-1.RAW	12:51:50 PM	11.47	1		131.0	0.667	266.873	ng/L	
Hg2600-2	BC	SAM	1709622-01	400	10/9/2017 12:55:58	86861-1.RAW	12:55:58 PM	218.58	1		3.8	0.017	6.625	ng/L	
Hg2600-2	BC	SAM	1709622-03	400	10/9/2017 13:00:06	86862-1.RAW	1:00:06 PM	268.02	1		210.9	1.076	430.334	ng/L	
Hg2600-2	BC	SAM	1709622-04	400	10/9/2017 13:04:15	86863-1.RAW	1:04:15 PM	224.91	1		260.4	1.329	531.479	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	10/9/2017 13:08:23	86864-1.RAW	1:08:23 PM	953.90	1		217.3	1.108	443.284	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	10/9/2017 13:12:32	86865-1.RAW	1:12:32 PM	13.01			946.2	4.840	4.840	ng/L	
Hg2600-2	BC	SAM	ws		10/9/2017 13:16:41	86866-1.RAW	1:16:41 PM	30.24			5.4	0.027	0.027	ng/L	
Hg2600-2	BC	SAM	1709621-01RE1	20	10/9/2017 13:20:49	86867-1.RAW	1:20:49 PM	7496.90	1		22.6	0.116	0.000	ng/L	
Hg2600-2	BC	SAM	1709621-02RE1	20	10/9/2017 13:24:57	86868-1.RAW	1:24:57 PM	2109.17	1		7489.2	38.245	764.897	ng/L	
Hg2600-2	BC	SAM	F710226-DUP1	400	10/9/2017 13:33:54	86869-1.RAW	1:33:54 PM	818.53	1		2101.5	10.689	213.782	ng/L	
Hg2600-2	BC	SAM	F710226-MS1	400	10/9/2017 13:38:03	86870-1.RAW	1:38:03 PM	3282.51	1		810.9	4.144	1657.720	ng/L	
Hg2600-2	BC	SAM	F710226-MSD1	400	10/9/2017 13:42:11	86871-1.RAW	1:42:11 PM	3133.92	1		3274.9	16.746	6698.569	ng/L	
Hg2600-2	BC	SAM	F710226-MS2	400	10/9/2017 13:46:20	86872-1.RAW	1:46:20 PM	2332.71	1		3126.3	15.986	6394.581	ng/L	
Hg2600-2	BC	SAM	F710226-MSD2	400	10/9/2017 13:50:28	86873-1.RAW	1:50:28 PM	2385.86	1		2325.1	11.889	4755.453	ng/L	
Hg2600-2	BC	SAM	1709621-01RE2	400	10/9/2017 13:54:37	86874-1.RAW	1:54:37 PM	445.60	1		2378.2	12.160	4864.188	ng/L	
Hg2600-2	BC	SAM	1709621-02RE2	400	10/9/2017 13:58:45	86875-1.RAW	1:58:45 PM	144.21	1		437.9	2.237	894.775	ng/L	
Hg2600-2	BC	SAM	1709621-03RE1	20	10/9/2017 14:02:54	86876-1.RAW	2:02:54 PM	32.22	1		136.6	0.695	278.186	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	10/9/2017 14:07:02	86877-1.RAW	2:07:02 PM	965.12	1		24.6	0.066	1.329	ng/L	
					10/9/2017 14:11:10		2:11:10 PM				957.5	4.897	4.897	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP					
Hg2600-2	BC	CAL	SEQ-CCB4	1	10/9/2017 14:15:19	86878-1.RAW	2:15:19 PM	22.15								
Hg2600-2	BC	SAM	*F710227-BLK1	20	10/9/2017 14:19:27	86879-1.RAW	2:19:27 PM	18.38				14.5	0.074	0.074	ng/L	
Hg2600-2	BC	SAM	*F710227-BLK2	20	10/9/2017 14:23:36	86880-1.RAW	2:23:36 PM	15.01		2		10.7	0.007	0.139	ng/L	
Hg2600-2	BC	SAM	*F710227-BLK3	20	10/9/2017 14:27:44	86881-1.RAW	2:27:44 PM	17.33		2		7.4	-0.010	-0.206	ng/L	
Hg2600-2	BC	SAM	F710227-BS1	20	10/9/2017 14:31:53	86882-1.RAW	2:31:53 PM	972.26		2		9.7	0.002	0.031	ng/L	
Hg2600-2	BC	SAM	F710227-BSD1	20	10/9/2017 14:36:01	86883-1.RAW	2:36:01 PM	996.22		2		964.6	4.886	97.712	ng/L	
Hg2600-2	BC	SAM	F710227-BS2	400	10/9/2017 14:40:09	86884-1.RAW	2:40:09 PM	1079.81		2		988.6	5.008	100.163	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 14:44:18	86885-1.RAW	2:44:18 PM	526.56			x	1072.2	5.481	2192.476	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 14:48:26	86886-1.RAW	2:48:26 PM	537.68			x	518.9	2.654	1061.587	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 14:52:35	86887-1.RAW	2:52:35 PM	440.83			x	530.0	2.711	1084.337	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 14:56:43	86888-1.RAW	2:56:43 PM	1121.65			x	433.2	2.215	886.199	ng/L	
Hg2600-2	BC	SAM	ws	1	10/9/2017 15:00:52	86889-1.RAW	3:00:52 PM	502.84			x	1114.0	5.698	2279.031	ng/L	
Hg2600-2	BC	SAM	ws	1	10/9/2017 15:05:00	86890-1.RAW	3:05:00 PM	417.53			x	495.2	2.533	2.533	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 15:09:09	86891-1.RAW	3:09:09 PM	552.79			x	409.9	2.096	2.096	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 15:13:17	86892-1.RAW	3:13:17 PM	801.05			x	545.1	2.788	1115.249	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 15:17:26	86893-1.RAW	3:17:26 PM	818.05			x	793.4	4.058	1623.143	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 15:32:23	86895-1.RAW	3:32:23 PM	478.40			x	810.4	4.145	1657.922	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	10/9/2017 15:36:31	86896-1.RAW	3:36:31 PM	922.10				470.7	2.408	0.000	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	10/9/2017 15:40:40	86897-1.RAW	3:40:40 PM	24.10				914.4	4.677	4.677	ng/L	
Hg2600-2	BC	SAM	1709622-02	400	10/9/2017 15:44:48	86894-2.RAW	3:44:48 PM	544.75		2		16.4	0.084	0.084	ng/L	
Hg2600-2	BC	SAM	1709622-05	400	10/9/2017 15:48:56	86898-1.RAW	3:48:56 PM	214.31		2		537.1	2.745	1097.842	ng/L	
Hg2600-2	BC	SAM	1709622-06	400	10/9/2017 15:53:05	86899-1.RAW	3:53:05 PM	542.31		2		206.7	1.055	421.823	ng/L	
Hg2600-2	BC	SAM	1709622-07	400	10/9/2017 15:57:13	86900-1.RAW	3:57:13 PM	530.18		2		534.7	2.732	1092.850	ng/L	
Hg2600-2	BC	SAM	1709622-08	400	10/9/2017 16:01:22	86901-1.RAW	4:01:22 PM	232.01		2		522.5	2.670	1068.035	ng/L	
Hg2600-2	BC	SAM	1709622-09	400	10/9/2017 16:05:30	86902-1.RAW	4:05:30 PM	175.07		2		224.4	1.145	458.034	ng/L	
Hg2600-2	BC	SAM	1709622-10	400	10/9/2017 16:09:39	86903-1.RAW	4:09:39 PM	256.91		2		167.4	0.854	341.545	ng/L	
Hg2600-2	BC	SAM	1709622-11	400	10/9/2017 16:13:47	86904-1.RAW	4:13:47 PM	268.22		2		249.3	1.272	508.975	ng/L	
Hg2600-2	BC	SAM	1709622-12	400	10/9/2017 16:17:56	86905-1.RAW	4:17:56 PM	189.95		2		260.6	1.330	532.113	ng/L	
Hg2600-2	BC	SAM	1709622-13	400	10/9/2017 16:22:04	86906-1.RAW	4:22:04 PM	452.05		2		182.3	0.930	371.987	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	10/9/2017 16:26:13	86907-1.RAW	4:26:13 PM	951.03				444.4	2.270	908.195	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	10/9/2017 16:30:21	86908-1.RAW	4:30:21 PM	18.86				943.4	4.825	4.825	ng/L	
Hg2600-2	BC	SAM	1709622-14	400	10/9/2017 16:34:29	86909-1.RAW	4:34:29 PM	293.26		2		11.2	0.057	0.057	ng/L	
Hg2600-2	BC	SAM	1709622-15	400	10/9/2017 16:38:37	86910-1.RAW	4:38:37 PM	256.67		2		285.6	1.458	583.340	ng/L	
Hg2600-2	BC	SAM	1709622-16	400	10/9/2017 16:42:45	86911-1.RAW	4:42:45 PM	245.95		2		249.0	1.271	508.484	ng/L	
Hg2600-2	BC	SAM	1709622-17	400	10/9/2017 16:46:53	86912-1.RAW	4:46:53 PM	412.01		2		238.3	1.216	486.553	ng/L	
Hg2600-2	BC	BLK	F710227-BLK4	20	10/9/2017 16:51:01	86913-1.RAW	4:51:01 PM	17.98		2		404.4	2.066	826.281	ng/L	
Hg2600-2	BC	BLK	F710227-BLK5	20	10/9/2017 16:55:10	86914-1.RAW	4:55:10 PM	17.03		2		10.3	0.053	1.056	ng/L	
Hg2600-2	BC	BLK	F710227-BLK6	20	10/9/2017 16:59:18	86915-1.RAW	4:59:18 PM	16.06		2		9.4	0.048	0.959	ng/L	
Hg2600-2	BC	SAM	F710227-BS3	20	10/9/2017 17:03:27	86916-1.RAW	5:03:27 PM	951.49		2		8.4	0.043	0.860	ng/L	
Hg2600-2	BC	SAM	F710227-BSD3	20	10/9/2017 17:07:35	86917-1.RAW	5:07:35 PM	994.78		2		943.8	4.779	95.587	ng/L	
Hg2600-2	BC	SAM	F710227-BS4	400	10/9/2017 17:11:43	86918-1.RAW	5:11:43 PM	1069.17		2		987.1	5.001	100.015	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	10/9/2017 17:15:52	86919-1.RAW	5:15:52 PM	926.97				1061.5	5.427	2170.709	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	10/9/2017 17:20:00	86920-1.RAW	5:20:00 PM	21.86				919.3	4.702	4.702	ng/L	
Hg2600-2	BC	SAM	1709622-18	400	10/9/2017 17:24:09	86921-1.RAW	5:24:09 PM	263.61		2		14.2	0.073	0.073	ng/L	
Hg2600-2	BC	SAM	1709622-19	400	10/9/2017 17:28:17	86922-1.RAW	5:28:17 PM	274.44		2		256.0	1.307	522.682	ng/L	
Hg2600-2	BC	SAM	1709622-20	400	10/9/2017 17:32:25	86923-1.RAW	5:32:25 PM	215.74		2		266.8	1.362	544.838	ng/L	
Hg2600-2	BC	SAM	1709623-01	400	10/9/2017 17:36:34	86924-1.RAW	5:36:34 PM	132.65		2		208.1	1.062	424.748	ng/L	
Hg2600-2	BC	SAM	1709623-02	400	10/9/2017 17:40:42	86925-1.RAW	5:40:42 PM	102.53		2		125.0	0.637	254.762	ng/L	
Hg2600-2	BC	SAM	1709623-03	400	10/9/2017 17:44:51	86926-1.RAW	5:44:51 PM	56.79		2		94.9	0.483	193.142	ng/L	
Hg2600-2	BC	SAM	F710227-DUP1	400	10/9/2017 17:48:59	86927-1.RAW	5:48:59 PM	424.13		2		49.1	0.249	99.566	ng/L	
Hg2600-2	BC	SAM	F710227-MS1	400	10/9/2017 17:53:08	86928-1.RAW	5:53:08 PM	2590.37		2		416.5	2.128	851.076	ng/L	
Hg2600-2	BC	SAM	F710227-MSD1	400	10/9/2017 17:57:16	86929-1.RAW	5:57:16 PM	2714.86		2		2582.7	13.207	5282.803	ng/L	
Hg2600-2	BC	SAM	F710227-MS2	400	10/9/2017 18:01:24	86930-1.RAW	6:01:24 PM	2272.57		2		2707.2	13.844	5537.486	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8	1	10/9/2017 18:05:33	86931-1.RAW	6:05:33 PM	957.57				2264.9	11.582	4632.643	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB8	1	10/9/2017 18:09:41	86932-1.RAW	6:09:41 PM	23.89				949.9	4.858	4.858	ng/L	
Hg2600-2	BC	SAM	F710227-MSD2	400	10/9/2017 18:13:50	86933-1.RAW	6:13:50 PM	2112.72		2		16.2	0.083	0.083	ng/L	
Hg2600-2	BC	SAM	1709623-01RE1	50	10/9/2017 18:17:58	86934-1.RAW	6:17:58 PM	930.20		2		2105.1	10.764	4305.619	ng/L	
Hg2600-2	BC	SAM	1709623-02RE1	50	10/9/2017 18:22:06	86935-1.RAW	6:22:06 PM	739.31		2		922.5	4.699	234.962	ng/L	
Hg2600-2	BC	SAM	1709623-03RE1	50	10/9/2017 18:26:15	86936-1.RAW	6:26:15 PM	391.00		2		731.7	3.723	186.146	ng/L	
Hg2600-2	BC	SAM	F710227-DUP2	400	10/9/2017 18:30:23	86937-1.RAW	6:30:23 PM	1979.26		2		383.3	1.941	97.074	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV9	1	10/9/2017 18:34:32	86938-1.RAW	6:34:32 PM	991.38				1971.6	10.081	4032.585	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB9	1	10/9/2017 18:38:40	86939-1.RAW	6:38:40 PM	25.14				983.7	5.031	5.031	ng/L	
Hg2600-2	BC	SAM	F710227-DUP3	400	10/9/2017 18:43:53	86940-1.RAW	6:43:53 PM	528.27		2		17.5	0.089	0.089	ng/L	
Hg2600-2	BC	CAL	SEQ-CCVA	1	10/9/2017 18:48:01	86941-1.RAW	6:48:01 PM	976.82				520.6	2.660	1064.127	ng/L	
Hg2600-2	BC	CAL	SEQ-CCBA	1	10/9/2017 18:52:10	86942-1.RAW	6:52:10 PM	17.59				969.2	4.957	4.957	ng/L	
Hg2600-2	BC	CAL	SEQ-CCBB	1	10/9/2017 18:56:19	86943-1.RAW	6:56:19 PM	17.59				9.9	0.051	0.051	ng/L	

TotalMercury
EPA1631

Operat BC BlankSi 7.6567 Calib Eqn: Conc = (Area-7.656 Run Date: 10/9/2017 Blank SD: 2.693651937
 Worksh THg260(CalibFa 195.52 Status: QC Warnings:5/QC E Run Time: 18:39:44 Blank RSD%: 35.18040433
 Method #### R: 1 R²: 1 CF SD: 5.809243066
 Descrip THg26002-171009-1 CF RSD%: 2.971166102

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean				0.00	9.45					86816-1.RAW	9:50:38	1847.46	Clean	OK	1	
clean				0.00	0.00					86817-1.RAW	9:53:29	0.76	Clean	OK	1	
ws				7.66	0.02					86818-1.RAW	9:57:38	12.02	Sample	OK	1	
ws				7.66	0.00					86819-1.RAW	10:01:46	5.15	Sample	OK	1	
ws				7.66	0.00					86820-1.RAW	10:05:55	6.59	Sample	OK	1	
SEQ-IBL1	A1		1	0.00	0.04					86821-1.RAW	10:10:03	7.50	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.05					86822-1.RAW	10:14:12	10.42	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.03					86823-1.RAW	10:18:20	5.04	Sample	OK	1	
SEQ-CAL1	A4		1	7.66	0.51			102.50		86824-1.RAW	10:22:28	107.86	Sample	OK	1	
SEQ-CAL2	A5		1	7.66	1.03			103.38		86825-1.RAW	10:26:37	209.79	Sample	OK	1	
SEQ-CAL3	A6		1	7.66	5.00			100.04		86826-1.RAW	10:30:45	985.66	Sample	OK	1	
SEQ-CAL4	A7		1	7.66	19.38			96.89		86827-1.RAW	10:34:54	3796.53	Sample	OK	1	
SEQ-CAL5	A8		1	7.66	38.87			97.18		86828-1.RAW	10:39:02	7608.06	Sample	OK	1	
SEQ-ICV1	A9		1	7.66	4.99			99.72		86829-1.RAW	10:43:11	982.52	Sample	OK	1	
F710226-BLK1	A10		20	7.66	2.21					86830-1.RAW	10:47:36	29.27	Sample	OK	1	
F710226-BLK2	A11		20	7.66	0.94					86831-1.RAW	10:51:44	16.89	Sample	OK	1	
F710226-BLK3	A12		20	7.66	0.39					86832-1.RAW	10:55:53	11.51	Sample	OK	1	
*F710226-BLK4	A13		20	7.66	0.85					86833-1.RAW	11:00:01	15.96	Sample	OK	1	
*F710226-BLK5	A14		20	7.66	1.05					86834-1.RAW	11:04:10	17.97	Sample	OK	1	
*F710226-BLK6	A15		20	7.66	0.39					86835-1.RAW	11:08:18	11.51	Sample	OK	1	
*F710226-BLK7	A16		20	7.66	0.87					86836-1.RAW	11:12:27	16.19	Sample	OK	1	
F710226-BS1	A17		20	7.66	104.38					86837-1.RAW	11:16:35	1028.07	Sample	OK	1	
F710226-BSD1	A18		20	7.66	103.83					86838-1.RAW	11:20:44	1022.75	Sample	OK	1	
F710226-BS2	A19		400	7.66	2015.04					86839-1.RAW	11:24:52	992.61	Sample	OK	1	
SEQ-CCV1	A20		1	7.66	4.76			95.26		86840-1.RAW	11:29:01	938.92	Sample	OK	1	
SEQ-CCB1	A21		1	7.66	0.04			0.00		86841-1.RAW	11:33:09	15.99	Sample	OK	1	
1709620-06	B1		400	7.66	1408.42					86842-1.RAW	11:37:18	696.10	Sample	OK	1	
1709620-08	B2		400	7.66	1407.61					86843-1.RAW	11:41:26	695.70	Sample	OK	1	
1709620-09	B3		400	7.66	1160.56					86844-1.RAW	11:45:34	574.94	Sample	OK	1	
1709620-10	B4		400	7.66	2916.61					86845-1.RAW	11:49:43	1433.30	Sample	OK	1	
1709620-11	B5		400	7.66	1214.84					86846-1.RAW	11:53:51	601.47	Sample	OK	1	
1709620-12	B6		400	7.66	970.86					86847-1.RAW	11:58:00	482.22	Sample	OK	1	
1709620-13	B7		400	7.66	1332.46					86848-1.RAW	12:02:08	658.96	Sample	OK	1	
1709620-14	B8		400	7.66	1888.49					86849-1.RAW	12:06:17	930.75	Sample	OK	1	
1709620-15	B9		400	7.66	1872.94					86850-1.RAW	12:10:25	923.15	Sample	OK	1	
1709620-16	B10		400	7.66	953.45					86851-1.RAW	12:14:34	473.71	Sample	OK	1	
SEQ-CCV2	B11		1	7.66	4.88			97.62		86852-1.RAW	12:18:42	961.95	Sample	OK	1	
SEQ-CCB2	B12		1	7.66	0.02			0.00		86853-1.RAW	12:22:50	11.21	Sample	OK	1	
1709620-17	B13		400	7.66	1983.74					86854-1.RAW	12:26:59	977.31	Sample	OK	1	
1709620-18	B14		400	7.66	1603.67					86855-1.RAW	12:31:07	791.53	Sample	OK	1	
1709620-19	B15		400	7.66	1417.89					86856-1.RAW	12:35:16	700.72	Sample	OK	1	
1709620-20	B16		400	7.66	3504.03					86857-1.RAW	12:39:24	1720.43	Sample	OK	1	
1709621-01	B17		400	7.66	856.47					86858-1.RAW	12:43:33	426.30	Sample	OK	1	
1709621-02	B18		400	7.66	268.04					86859-1.RAW	12:47:41	138.68	Sample	OK	1	
1709621-03	B19		400	7.66	7.79					86860-1.RAW	12:51:50	11.47	Sample	OK	1	
1709622-01	B20		400	7.66	431.51					86861-1.RAW	12:55:58	218.58	Sample	OK	1	
1709622-03	B21		400	7.66	532.65					86862-1.RAW	13:00:06	268.02	Sample	OK	1	
1709622-04	C1		400	7.66	444.46					86863-1.RAW	13:04:15	224.91	Sample	OK	1	
SEQ-CCV3	C2		1	7.66	4.84			96.79		86864-1.RAW	13:08:23	953.90	Sample	OK	1	
SEQ-CCB3	C3		1	7.66	0.03			0.00		86865-1.RAW	13:12:32	13.01	Sample	OK	1	

1709622-18	B4	400	7.66	523.63		86921-1.RAW	17:24:09	263.61	Sample	OK	1
1709622-19	B5	400	7.66	545.79		86922-1.RAW	17:28:17	274.44	Sample	OK	1
1709622-20	B6	400	7.66	425.71		86923-1.RAW	17:32:25	215.74	Sample	OK	1
1709623-01	B7	400	7.66	255.72		86924-1.RAW	17:36:34	132.65	Sample	OK	1
1709623-02	B8	400	7.66	194.09		86925-1.RAW	17:40:42	102.53	Sample	OK	1
1709623-03	B9	400	7.66	100.52		86926-1.RAW	17:44:51	56.79	Sample	OK	1
F710227-DUP1	B10	400	7.66	852.03		86927-1.RAW	17:48:59	424.13	Sample	OK	1
F710227-MS1	B11	400	7.66	5283.77	619.41	86928-1.RAW	17:53:08	2590.37	Sample	OK	1
F710227-MSD1	B12	400	7.66	5538.45		86929-1.RAW	17:57:16	2714.86	Sample	OK	1
F710227-MS2	B13	400	7.66	4633.60	83.63	86930-1.RAW	18:01:24	2272.57	Sample	OK	1
SEQ-CCV8	B14	1	7.66	4.86	97.17	86931-1.RAW	18:05:33	957.57	Sample	OK	1
SEQ-CCB8	B15	1	7.66	0.08	0.00	86932-1.RAW	18:09:41	23.89	Sample	OK	1
F710227-MSD2	B16	400	7.66	4306.58		86933-1.RAW	18:13:50	2112.72	Sample	OK	1
1709623-01RE1	B19	50	7.66	235.92		86934-1.RAW	18:17:58	930.20	Sample	OK	1
1709623-02RE1	B20	50	7.66	187.10		86935-1.RAW	18:22:06	739.31	Sample	OK	1
1709623-03RE1	B21	50	7.66	98.03		86936-1.RAW	18:26:15	391.00	Sample	OK	1
F710227-DUP2	C1	400	7.66	4033.55		86937-1.RAW	18:30:23	1979.26	Sample	OK	1
SEQ-CCV9	B17	1	7.66	5.03	100.63	86938-1.RAW	18:34:32	991.38	Sample	OK	1
SEQ-CCB9	B18	1	7.66	0.09	0.00	86939-1.RAW	18:38:40	25.14	Sample	OK	1
F710227-DUP3	C4	400	7.66	1065.07		86940-1.RAW	18:43:53	528.27	Sample	OK	1
SEQ-CCVA	C2	1	7.66	4.96		86941-1.RAW	18:48:01	976.82	Sample	OK	1
SEQ-CCBA	C3	1	7.66	0.05		86942-1.RAW	18:52:10	17.59	Sample	OK	1

ANALYSIS SEQUENCE

7J10017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/9/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J10017-IBL1	QC	1			
7J10017-IBL2	QC	2			
7J10017-IBL3	QC	3			
7J10017-CAL1	QC	4	1704505		
7J10017-CAL2	QC	5	1704506		
7J10017-CAL3	QC	6	1704507		
7J10017-CAL4	QC	7	1704508		
7J10017-CAL5	QC	8	1704509		
7J10017-ICV1	QC	9	1705628		
F710226-BLK1	QC	10			
F710226-BLK2	QC	11			
F710226-BLK3	QC	12			
F710226-BLK4	QC	13			
F710226-BLK5	QC	14			
F710226-BLK6	QC	15			
F710226-BLK7	QC	16			
F710226-BS1	QC	17			
F710226-BSD1	QC	18			
F710226-BS2	QC	19			
7J10017-CCV1	QC	20	1705628		
7J10017-CCB1	QC	21			
1709620-06	Hg-CVAFS-T-7030	22			
1709620-08	Hg-CVAFS-T-7030	23			
1709620-09	Hg-CVAFS-T-7030	24			
1709620-10	Hg-CVAFS-T-7030	25			
1709620-11	Hg-CVAFS-T-7030	26			
1709620-12	Hg-CVAFS-T-7030	27			
1709620-13	Hg-CVAFS-T-7030	28			
1709620-14	Hg-CVAFS-T-7030	29			
1709620-15	Hg-CVAFS-T-7030	30			
1709620-16	Hg-CVAFS-T-7030	31			
7J10017-CCV2	QC	32	1705628		
7J10017-CCB2	QC	33			
1709620-17	Hg-CVAFS-T-7030	34			
1709620-18	Hg-CVAFS-T-7030	35			

Due Date: 10/20/2017

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ANALYSIS SEQUENCE

7J10017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/9/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709620-19	Hg-CVAFS-T-7030	36			
1709620-20	Hg-CVAFS-T-7030	37			
1709621-01	Hg-CVAFS-T-7030	38			
1709621-02	Hg-CVAFS-T-7030	39			
1709621-03	Hg-CVAFS-T-7030	40			
1709622-01	Hg-CVAFS-T-7030	41			
1709622-03	Hg-CVAFS-T-7030	42			
1709622-04	Hg-CVAFS-T-7030	43			
7J10017-CCV3	QC	44	1705628		
7J10017-CCB3	QC	45			
1709621-01RE1	Hg-CVAFS-T-7030	46			Added 10/10/2017 by BC
1709621-02RE1	Hg-CVAFS-T-7030	47			Added 10/10/2017 by BC
F710226-DUP1	QC	48			
F710226-MS1	QC	49			
F710226-MSD1	QC	50			
F710226-MS2	QC	51			
F710226-MSD2	QC	52			
1709621-01RE2	Hg-CVAFS-T-7030	53			Added 10/10/2017 by BC
1709621-02RE2	Hg-CVAFS-T-7030	54			Added 10/10/2017 by BC
1709621-03RE1	Hg-CVAFS-T-7030	55			Added 10/10/2017 by BC
7J10017-CCV4	QC	56	1705628		
7J10017-CCB4	QC	57			
F710227-BLK1	QC	58			
F710227-BLK2	QC	59			
F710227-BLK3	QC	60			
F710227-BS1	QC	61			
F710227-BSD1	QC	62			
F710227-BS2	QC	63			
7J10017-CCV5	QC	64	1705628		
7J10017-CCB5	QC	65			
1709622-02	Hg-CVAFS-T-7030	66			
1709622-05	Hg-CVAFS-T-7030	67			
1709622-06	Hg-CVAFS-T-7030	68			
1709622-07	Hg-CVAFS-T-7030	69			
1709622-08	Hg-CVAFS-T-7030	70			

Due Date: 10/20/2017

ANALYSIS SEQUENCE

7J10017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/9/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709622-09	Hg-CVAFS-T-7030	71			
1709622-10	Hg-CVAFS-T-7030	72			
1709622-11	Hg-CVAFS-T-7030	73			
1709622-12	Hg-CVAFS-T-7030	74			
1709622-13	Hg-CVAFS-T-7030	75			
7J10017-CCV6	QC	76	1705628		
7J10017-CCB6	QC	77			
1709622-14	Hg-CVAFS-T-7030	78			
1709622-15	Hg-CVAFS-T-7030	79			
1709622-16	Hg-CVAFS-T-7030	80			
1709622-17	Hg-CVAFS-T-7030	81			
F710227-BLK4	QC	82			
F710227-BLK5	QC	83			
F710227-BLK6	QC	84			
F710227-BS3	QC	85			
F710227-BSD3	QC	86			
F710227-BS4	QC	87			
7J10017-CCV7	QC	88	1705628		
7J10017-CCB7	QC	89			
1709622-18	Hg-CVAFS-T-7030	90			
1709622-19	Hg-CVAFS-T-7030	91			
1709622-20	Hg-CVAFS-T-7030	92			
1709623-01	Hg-CVAFS-T-7030	93			
1709623-02	Hg-CVAFS-T-7030	94			
1709623-03	Hg-CVAFS-T-7030	95			
F710227-DUP1	QC	96			
F710227-MS1	QC	97			
F710227-MSD1	QC	98			
F710227-MS2	QC	99			
7J10017-CCV8	QC	100	1705628		
7J10017-CCB8	QC	101			
F710227-MSD2	QC	102			
1709623-01RE1	Hg-CVAFS-T-7030	103			Added 10/10/2017 by BC
1709623-02RE1	Hg-CVAFS-T-7030	104			Added 10/10/2017 by BC
1709623-03RE1	Hg-CVAFS-T-7030	105			Added 10/10/2017 by BC

Due Date: 10/20/2017

ANALYSIS SEQUENCE

7J10017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/9/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F710227-DUP2	QC	106			
7J10017-CCV9	QC	107	1705628		
7J10017-CCB9	QC	108			
F710227-DUP3	QC	109			
7J10017-CCVA	QC	110	1705628		
7J10017-CCBA	QC	111			

Beavis 10/10/17
 Samples Loaded By _____ Date

Beavis 10/10/17
 Data Processed By _____ Date

104-2
10/9/17

Failing Data Report - 7J10017

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F710227-DUP1	Hg-CVAFS-T-7030	64.23	15.1	87.83	87.83		ng/g				31.0	24.00	PASS-OVER	FAIL-DUP	QR-07
F710227-DUP2	Hg-CVAFS-T-7030	322.6	16.0	87.83	87.83		ng/g				114	24.00	PASS-OVER	FAIL-DUP	AD

Becj 10/10/17
 Analyst Reviewed By Date

Don Makem 10/10/17
 Peer Reviewed By Date

PREPARATION BENCH SHEET

F710226

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710226-BLK1	Blank	0.25	20					
F710226-BLK2	Blank	0.25	20					
F710226-BLK3	Blank	0.25	20					
F710226-BLK4	Blank	0.25	20					1st Set Pre-homogenization Blank for 1709621/1709622/1709623
F710226-BLK5	Blank	0.25	20					1st Set Post-homogenization Blank for 1709621/1709622/1709623
F710226-BLK6	Blank	0.25	20					2nd Set Pre-homogenization Blank for 1709621/1709622/1709623
F710226-BLK7	Blank	0.25	20					2nd Set Post-homogenization Blank for 1709621/1709622/1709623
F710226-BS1	LCS	0.25	20	1704421	20			
F710226-BS2	DORM4	0.1251	20	1705412	125.1			
F710226-BSD1	LCS Dup	0.25	20	1704421	20			
F710226-DUP1	Duplicate [1709620-06]	0.276	20					
F710226-MS1	Matrix Spike [1709620-06]	0.278	20	1705554	100			
F710226-MS2	Matrix Spike [1709621-02]	0.26	20	1705554	100			
F710226-MSD1	Matrix Spike Dup [1709620-06]	0.262	20	1705554	100			
F710226-MSD2	Matrix Spike Dup [1709621-02]	0.275	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705959	5% BrCl	22-Jan-18 00:00

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710226

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709620-06	MMMC-01_17MT003_092017_MUM_06_WB	0.258	20	QC	-	-	ms/msd	
1709620-08	MMMC-01_17MT003_092017_MUM_08_WB	0.264	20	-	-	-		
1709620-09	MMMC-01_17MT003_092017_MUM_09_WB	0.263	20	-	-	-		
1709620-10	MMMC-01_17MT003_092017_MUM_10_WB	0.282	20	-	-	-		
1709620-11	MMMC-01_17MT003_092017_MUM_11_WB	0.257	20	-	-	-		
1709620-12	MMMC-01_17MT003_092017_MUM_12_WB	0.265	20	-	-	-		
1709620-13	MMMC-01_17MT003_092017_MUM_13_WB	0.255	20	-	-	-		
1709620-14	MMMC-01_17MT003_092017_MUM_14_WB	0.252	20	-	-	-		
1709620-15	MMMC-01_17MT003_092017_MUM_15_WB	0.258	20	-	-	-		
1709620-16	MMMC-01_17MT003_092017_MUM_16_WB	0.263	20	-	-	-		
1709620-17	MMMC-01_17MT003_092017_MUM_17_WB	0.292	20	-	-	-		
1709620-18	MMMC-01_17MT003_092017_MUM_18_WB	0.286	20	-	-	-		
1709620-19	MMMC-01_17MT003_092017_MUM_19_WB	0.283	20	-	-	-		
1709620-20	MMMC-01_17MT003_092017_MUM_20_WB	0.274	20	-	-	-		
1709621-01	BO-04_17SN001_091717_MUM_01_WB	0.27	20	-	-	-		
1709621-01RE1	BO-04_17SN001_091717_MUM_01_WB	0.27	20	-	-	-	Added 10/10/2017 by BC	Added 10/10/2017 by BC
1709621-01RE2	BO-04_17SN001_091717_MUM_01_WB	0.27	20	-	-	-	Added 10/10/2017 by BC	Added 10/10/2017 by BC
1709621-02	ESFP_091517_BAIT_01_QC	0.265	20	-	-	-		
1709621-02RE1	ESFP_091517_BAIT_01_QC	0.265	20	-	-	-	Added 10/10/2017 by BC	Added 10/10/2017 by BC

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710226

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

1709621-02RE2	ESFP_091517_BAIT_01_QC	0.265	20	-	-	-	Added 10/10/2017 by BC	Added 10/10/2017 by BC
1709621-03	ESFP_091517_BAIT_02_QC	0.288	20	-	-	-		
1709621-03RE1	ESFP_091517_BAIT_02_QC	0.288	20	-	-	-	Added 10/10/2017 by BC	Added 10/10/2017 by BC
1709622-01	ES-13_17SN001_091417_RAS_01_WB	0.28	20	-	-	-		
1709622-03	ES-13_17SN001_091417_RAS_03_WB	0.252	20	-	-	-		
1709622-04	ES-13_17SN001_091417_RAS_04_WB	0.25	20	-	-	-		

PREPARATION BENCH SHEET

F710227

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710227-BLK1	Blank	0.25	20					
F710227-BLK2	Blank	0.25	20					
F710227-BLK3	Blank	0.25	20					
F710227-BLK4	Blank	0.25	20					
F710227-BLK5	Blank	0.25	20					
F710227-BLK6	Blank	0.25	20					
F710227-BS1	LCS	0.25	20	1704421	20			
F710227-BS2	DORM4	0.127	20	1705412	127			
F710227-BS3	LCS	0.25	20	1704421	20			
F710227-BS4	DORM4	0.127	20	1705412	127			
F710227-BSD1	LCS Dup	0.25	20	1704421	20			
F710227-BSD3	LCS Dup	0.25	20	1704421	20			
F710227-DUP1	Duplicate [1709622-02]	0.265	20					
F710227-DUP2	AD [1709622-02]	0.25	20					
F710227-DUP3	AD [1709622-02]	0.25	20					
F710227-MS1	Matrix Spike [1709622-02]	0.262	20	1705554	100			
F710227-MS2	Matrix Spike [1709623-02RE1]	0.289	20	1705554	100			
F710227-MSD1	Matrix Spike Dup [1709622-02]	0.292	20	1705554	100			
F710227-MSD2	Matrix Spike Dup [1709623-02RE1]	0.275	20	1705554	100			

PREPARATION BENCH SHEET

F710227

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00
			1705959		22-Jan-18 00:00

PREPARATION BENCH SHEET

F710227

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709622-02	ES-13_17SN001_091417_RAS_02_WB	0.25	20	QC	-	-	MS/MSD	
1709622-05	ES-13_17SN001_091417_RAS_05_WB	0.282	20	-	-	-		
1709622-06	ES-13_17SN001_091417_RAS_06_WB	0.285	20	-	-	-		
1709622-07	ES-13_17SN001_091417_RAS_07_WB	0.271	20	-	-	-		
1709622-08	ES-13_17SN001_091417_RAS_08_WB	0.28	20	-	-	-		
1709622-09	ES-13_17SN001_091417_RAS_09_WB	0.259	20	-	-	-		
1709622-10	ES-13_17SN001_091417_RAS_10_WB	0.272	20	-	-	-		
1709622-11	ES-13_17SN001_091417_RAS_11_WB	0.284	20	-	-	-		
1709622-12	ES-13_17SN001_091417_RAS_12_WB	0.25	20	-	-	-		
1709622-13	ES-13_17SN001_091417_RAS_13_WB	0.288	20	-	-	-		
1709622-14	ES-13_17SN001_091417_RAS_14_WB	0.268	20	-	-	-		
1709622-15	ES-13_17SN001_091417_RAS_15_WB	0.26	20	-	-	-		
1709622-16	ES-13_17SN001_091417_RAS_16_WB	0.28	20	-	-	-		
1709622-17	ES-13_17SN001_091417_RAS_17_WB	0.292	20	-	-	-		
1709622-18	ES-13_17SN001_091417_RAS_18_WB	0.26	20	-	-	-		
1709622-19	ES-13_17SN001_091417_RAS_19_WB	0.286	20	-	-	-		
1709622-20	ES-13_17SN001_091417_RAS_20_WB	0.282	20	-	-	-		
1709623-01	FRB-01_17SN001_091217_RAS_01_WB	0.259	20	-	-	-		
1709623-01RE1	FRB-01_17SN001_091217_RAS_01_WB	0.259	20	-	-	-	Added 10/10/2017 by BC	Added 10/10/2017 by BC

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710227

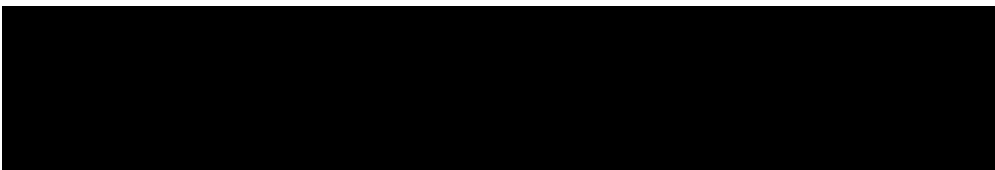
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

1709623-02	FRB-01_17SN001_091217_RAS_02_WB	0.255	20	QC	-	-	MS/MSD	
1709623-02RE1	FRB-01_17SN001_091217_RAS_02_WB	0.255	20	QC	-	-	MS/MSD Added 10/10/2017 by BC	Added 10/10/2017 by BC
1709623-03	FRB-01_17SN001_091217_RAS_03_WB	0.282	20	-	-	-		
1709623-03RE1	FRB-01_17SN001_091217_RAS_03_WB	0.282	20	-	-	-	Added 10/10/2017 by BC	Added 10/10/2017 by BC



PREPARATION BENCH SHEET

2600-2
BC 10/9/17

F710226

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710226-BLK1	Blank	0.25	20					20x
F710226-BLK2	Blank	0.25	20					20x
F710226-BLK3	Blank	0.25	20					20x
F710226-BLK4	Blank	0.25	20					1st Set Pre-homogenization Blank for 1709621/1709622/1709623 20x
F710226-BLK5	Blank	0.25	20					1st Set Post-homogenization Blank for 1709621/1709622/1709623 20x
F710226-BLK6	Blank	0.25	20					2nd Set Pre-homogenization Blank for 1709621/1709622/1709623 20x
F710226-BLK7	Blank	0.25	20					2nd Set Post-homogenization Blank for 1709621/1709622/1709623 20x
F710226-BS1	LCS	0.25	20	1704421	20			20x
F710226-BS2	DORM4	0.1251	20	1705412	125.1			400x
F710226-BSD1	LCS Dup	0.25	20	1704421	20			20x
F710226-DUP1	Duplicate [1709620-06]	0.276	20					400x
F710226-MS1	Matrix Spike [1709620-06]	0.278	20	1705554	100			400x
F710226-MS2	Matrix Spike [1709621-02]	0.26	20	1705554	100			400x
F710226-MSD1	Matrix Spike Dup [1709620-06]	0.262	20	1705554	100			400x
F710226-MSD2	Matrix Spike Dup [1709621-02]	0.275	20	1705554	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705959	5% BrCl	22-Jan-18 00:00

1705774
1705610
1705611
1703182

20x = 2.5
400x = 125µL

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

BC 10/9/17

F710226

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709620-06	MMMC-01_17MT003_092017_MUM_06_WB	0.258	20	QC	-	-	ms/msd	400x
1709620-08	MMMC-01_17MT003_092017_MUM_08_WB	0.264	20	-	-	-		400x
1709620-09	MMMC-01_17MT003_092017_MUM_09_WB	0.263	20	-	-	-		400x
1709620-10	MMMC-01_17MT003_092017_MUM_10_WB	0.282	20	-	-	-		400x
1709620-11	MMMC-01_17MT003_092017_MUM_11_WB	0.257	20	-	-	-		400x
1709620-12	MMMC-01_17MT003_092017_MUM_12_WB	0.265	20	-	-	-		400x
1709620-13	MMMC-01_17MT003_092017_MUM_13_WB	0.255	20	-	-	-		400x
1709620-14	MMMC-01_17MT003_092017_MUM_14_WB	0.252	20	-	-	-		400x
1709620-15	MMMC-01_17MT003_092017_MUM_15_WB	0.258	20	-	-	-		400x
1709620-16	MMMC-01_17MT003_092017_MUM_16_WB	0.263	20	-	-	-		400x
1709620-17	MMMC-01_17MT003_092017_MUM_17_WB	0.292	20	-	-	-		400x
1709620-18	MMMC-01_17MT003_092017_MUM_18_WB	0.286	20	-	-	-		400x
1709620-19	MMMC-01_17MT003_092017_MUM_19_WB	0.283	20	-	-	-		400x
1709620-20	MMMC-01_17MT003_092017_MUM_20_WB	0.274	20	-	-	-		400x
1709621-01	BO-04_17SN001_091717_MUM_01_WB	0.27	20	-	-	-		400x → 20x → 400x
1709621-02	ESFP_091517_BAIT_01_QC	0.265	20	-	-	-		400x → 20x → 400x
1709621-03	ESFP_091517_BAIT_02_QC	0.288	20	-	-	-		400x → 20x → 400x
1709622-01	ES-13_17SN001_091417_RAS_01_WB	0.28	20	-	-	-		400x
1709622-03	ES-13_17SN001_091417_RAS_03_WB	0.252	20	-	-	-		400x

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2
BL 10/9/17

F710226

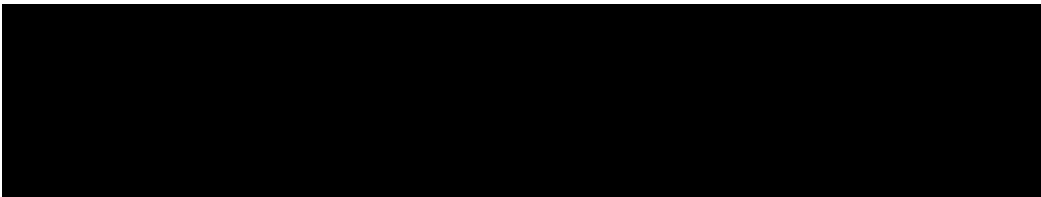
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

1709622-04	ES-13_17SN001_091417_RAS_04_WB	0.25	20	-	-	-	400Y	
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Technician: CWF Batch#: F710226 Date: 10/5/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 4°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6119/DOHNY Calibrated? Yes No Therm.#: 409418012 Calibrated? Yes No
 *Time in: 15:45 Actual Temp. (raw): 79.1 °C w/ CF: 78.6 °C
 Time out: 17:45 Actual Temp. (raw): 89.6 °C w/ CF: 89.3 °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705959) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: R 10/5/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: 0007852 Calibration Date: 10/2/17
 HNO₃ LIMS ID: NA Pipette SN#: NA Calibration Date: NA
 70/30 LIMS ID: 1705859 Dispenser #: 0202749 Calibrated? Yes No
 Other Acid LIMS ID: NA Dispenser #: 15406623
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: M1

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710226 - BLK1	0.271	23	1709620 - 20	0.274	BS2 = DOHNY LIMS: 1705412
2	F710226 - BLK2	0.278	24	1709621 - 01	0.270	
3	F710226 - BLK3	0.272	25	1709621 - 02	0.265	
4	F710226 - BS1	0.274	26	F710226 - MS2	0.260	Comments
5	F710226 - BSD1	0.256	27	F710226 - MSD2	0.275	DUPI/MS1/MSD1
6	F710226 - BS2	0.1251	28	1709621 - 03	0.288	Source: 1709620-06
7	1709620 - 06	0.258	29	1709622 - 01	0.280	MS2/MSD2
8	F710226 - DUPI	0.276	30	1709622 - 03	0.252	Source: 1709621-02
9	F710226 - MS1	0.278	31	1709622 - 04	0.250	BS1/BSD1 spilled with 1709621 20 mL
10	F710226 - MSD1	0.262	32	F710226 - BLK4	0.297	
11	1709620 - 08	0.264	33	F710226 - BLK5	0.256	BLK4 + 5 are Pre/Post blanks for 1709621, 9622, 9623
12	1709620 - 09	0.263	34	F710226 - BLK6	0.293	
13	1709620 - 10	0.282	35	F710226 - BLK7	0.272	BLK6 + 7 are Pre/Post blanks (Part 2) for 1709621
14	1709620 - 11	0.257	36			
15	1709620 - 12	0.265	37			CWF 10/6/17
16	1709620 - 13	0.255	38			
17	1709620 - 14	0.252	39			CWF 10/6/17
18	1709620 - 15	0.258	40			
19	1709620 - 16	0.263	41			CWF 10/6/17
20	1709620 - 17	0.292	42			
21	1709620 - 18	0.286	43			CWF 10/6/17
22	1709620 - 19	0.283	44			

PREPARATION BENCH SHEET

2000-2

F710227

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710227-BLK1	Blank	0.25	20					20X → 20X
F710227-BLK2	Blank	0.25	20					20X → 20X
F710227-BLK3	Blank	0.25	20					20X → 20X
F710227-BS1	LCS	0.25	20	1704421	20			20X → 20X
F710227-BS2	DORM4	0.127	20	1705412	127			400X → 400X
F710227-BSD1	LCS Dup	0.25	20	1704421	20			20X → 20X
F710227-DUP1	Duplicate [1709622-02]	0.265	20					400X → 20X
F710227-MS1	Matrix Spike [1709622-02]	0.262	20	1705554	100			400X
F710227-MS2	Matrix Spike [1709623-02] RE1	0.289	20	1705554	100			400X
F710227-MSD1	Matrix Spike Dup [1709622-02]	0.292	20	1705554	100			400X
F710227-MSD2	Matrix Spike Dup [1709623-02] RE1	0.275	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705915	5% BrCl	14-Mar-18 00:00
			1705959		22-Jan-18 00:00

BLK1, BLK2, BLK3, BS1, BSD1, BS2 return as BLK4, BLK5, BLK6, BS3, BSD3, BS4

DUP2-AD 400X
1709622-02

DUP3 2.1ml of DUP2

20X = 2.5ml
400X = 125ul
50X = 1ml

1705779
1705610
1705611
1703182

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

F710227

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709622-02	ES-13_17SN001_091417_RAS_02_WB	0.25	20	QC	-	-	MS/MSD 400x	
1709622-05	ES-13_17SN001_091417_RAS_05_WB	0.282	20	-	-	-	400x	
1709622-06	ES-13_17SN001_091417_RAS_06_WB	0.285	20	-	-	-	400x	
1709622-07	ES-13_17SN001_091417_RAS_07_WB	0.271	20	-	-	-	400x	
1709622-08	ES-13_17SN001_091417_RAS_08_WB	0.28	20	-	-	-	400x	
1709622-09	ES-13_17SN001_091417_RAS_09_WB	0.259	20	-	-	-	400x	
1709622-10	ES-13_17SN001_091417_RAS_10_WB	0.272	20	-	-	-	400x	
1709622-11	ES-13_17SN001_091417_RAS_11_WB	0.284	20	-	-	-	400x	
1709622-12	ES-13_17SN001_091417_RAS_12_WB	0.25	20	-	-	-	400x	
1709622-13	ES-13_17SN001_091417_RAS_13_WB	0.288	20	-	-	-	400x	
1709622-14	ES-13_17SN001_091417_RAS_14_WB	0.268	20	-	-	-	400x	
1709622-15	ES-13_17SN001_091417_RAS_15_WB	0.26	20	-	-	-	400x	
1709622-16	ES-13_17SN001_091417_RAS_16_WB	0.28	20	-	-	-	400x	
1709622-17	ES-13_17SN001_091417_RAS_17_WB	0.292	20	-	-	-	400x	
1709622-18	ES-13_17SN001_091417_RAS_18_WB	0.26	20	-	-	-	400x	
1709622-19	ES-13_17SN001_091417_RAS_19_WB	0.286	20	-	-	-	400x	
1709622-20	ES-13_17SN001_091417_RAS_20_WB	0.282	20	-	-	-	400x	
1709623-01	FRB-01_17SN001_091217_RAS_01_WB	0.259	20	-	-	-	400x → 50x	
1709623-02	FRB-01_17SN001_091217_RAS_02_WB	0.255	20	QC	-	-	MS/MSD 400x → 50x	

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

F710227

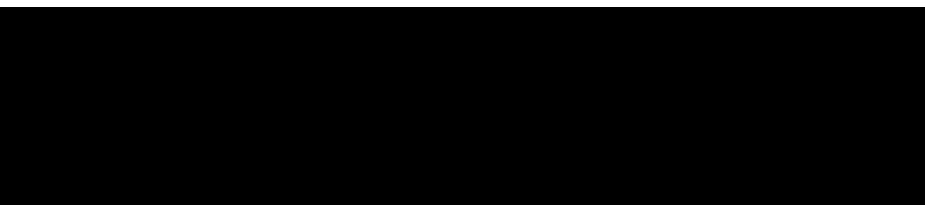
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

1709623-03	FRB-01_17SN001_091217_RAS_03_WB	0.282	20	-	-	-		H2O2 → SOX
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Technician: CWF Batch#: F710227 Date: 10/5/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6,19/082M4 Calibrated? Yes No Therm. #: 1404882 Calibrated? Yes No

*Time in: 15:45 Actual Temp. (raw): 79.1 °C w/ CF: 78.6 °C

Time out: 17:45 Actual Temp. (raw): 89.6 °C w/ CF: 89.3 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705515) Spike vol.: 100 ^{ms/MSD} µL (LIMS ID: 1705554)

Spike Witness: R 10/5/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: 01057852 Calibration Date: 10/2/17

HNO₃ LIMS ID: NA Pipette SN#: NA Calibration Date: NA

70/30 LIMS ID: 1705859 Dispenser #: 02k2 749 Calibrated? Yes No

Other Acid LIMS ID: NA Dispenser #: 15406623

Glass Vial # 000 88647 Boiling Chip lot # 1702551 *Hotblock Position: M

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710227 - Blw1	0.257	23	1709622 - 17	0.292	BS2 = DORM4 LIMS:
2	F710227 - Blw2	0.262	24	1709622 - 18	0.260	
3	F710227 - Blw3	0.271	25	1709622 - 19	0.286	1705412
4	F710227 - BS1	0.251	26	1709622 - 20	0.282	Comments
5	F710227 - BSD1	0.270	27	1709623 - 01	0.259	DUP1/MS1/MSD1 source: 1709622-02
6	F710227 - BS2	0.1270	28	1709623 - 02	0.255	MS2/MSD2 source: 1709623-02
7	1709622 - 02	0.250	29	F710227 - MS2	0.289	
8	F710227 - DUP1	0.265	30	F710227 - MSD2	0.275	BS1/BSD1 spiked with 20ml of 1704421
9	F710227 - MS1	0.262	31	1709623 - 03	0.282	
10	F710227 - MSD1	0.292	32			CWF 10/6/17
11	1709622 - 05	0.282	33			
12	1709622 - 06	0.285	34			
13	1709622 - 07	0.271	35			
14	1709622 - 08	0.280	36			
15	1709622 - 09	0.259	37			
16	1709622 - 10	0.272	38			
17	1709622 - 11	0.284	39			
18	1709622 - 12	0.290	40			
19	1709622 - 13	0.288	41			
20	1709622 - 14	0.268	42			
21	1709622 - 15	0.260	43			
22	1709622 - 16	0.280	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J10017
Reviewer: 0	Dataset ID(s): THg26002-171009-1
Date: 10/10/2017	WO (s) #: 0
Batch #(s): F710226, F710227	0

Analyst Initials BC Reviewer Initials [Signature]

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF ($\leq 15\%$) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | |
| Comments: <u>Dup1 failed (QR-07) Dup2 (AD) reanalyzed as Dup3</u> | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7J10017
Reviewer:	0	Dataset ID(s):	THg26002-171009-1
Date:	10/10/2017	WO (s) #:	0
Batch #(s):	F710226, F710227		0

Analyst Initials BC Reviewer Initials DM

20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? YES NO
- Comments: _____
21. Are all samples within instrument calibration range? (or at minimum dilution size) PASS FAIL
- Comments: _____
22. Are the samples run at the correct dilution level for the method? YES NO
- Comments: _____
23. Dissolved < Total (if applicable) YES NO N/A
- Comments: _____
24. Effluent < Influent (visually confirm if needed) YES NO N/A
- Comments: _____
25. Are re-runs noted with reason? YES NO N/A
- Comments: _____
26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? YES NO N/A
- Comments: _____
27. Is the B trap <5% A Traps YES NO N/A
- Comments: _____
28. Are spiked trap recoveries 75-125% of true value? YES NO N/A
- Comments: _____
29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
- Comments: _____
30. Have re-extracts been created for non-reportable samples? YES NO N/A
31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. YES NO N/A
32. Does the data set need scanning? YES NO N/A
33. Does the dataset have an LOQ/LOQ or DOC? YES NO N/A
34. Water samples: has the preservation log been included in dataset for final volume verification? YES NO N/A
35. Water samples-is the final volume correct in the sequence? YES NO N/A
- Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs**
36. Date of analyst IDOC/CDOC: _____ 1/11/2017 _____ IDOC/CDOC within last 12 months? YES NO
37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? YES NO
38. Date of LOD: _____ 7/28/2017 _____ LOD within last 3 months? YES NO
39. Date of LOQ: _____ 7/28/2017 _____ LOQ within last 3 months? YES NO

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1709621

PO#

C012505850

October 13, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1709621

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October 13, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 13:07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BO-04_17SN001_091717_MUM_01_WB	1709621-01	Tissue	17-Sep-17 11:00	22-Sep-17 10:25
ESFP_091517_BAIT_01_QC	1709621-02	Tissue	15-Sep-17 16:00	22-Sep-17 10:25
ESFP_091517_BAIT_02_QC	1709621-03	Tissue	15-Sep-17 16:00	22-Sep-17 10:25

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
13-Oct-17 13:07

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM . The samples were received intact, on-ice within two sealed coolers at -27.1 and -21.6 degrees Celsius.

Client requested Lipids Analysis by NOAA1993a on the sample submittal form, but this request was cancelled by the client on 10/6/17.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in batch F710226 and analyzed in Sequence 7J10017. There were no client requested samples for the source QC in this work order.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

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13-Oct-17 13:07

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

Client: AMSC Parker Wheeler

Date & Time Received: 9/22/17 10:25 Date Labeled: 9/23/17 Labeled By: CSJ

Project: _____

Received By: LM Label Verified By: Ban

of Coolers Received: 2 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>170404166</u> CF: <u>10.1</u> °C	Date/time: <u>9/22/17 10:25</u> By: <u>LM</u>
Cooler 1: <u>-27.22</u> °C w/ CF: <u>-27.12</u> °C	Cooler 4: °C w/ CF: °C
Cooler 2: <u>-21.73</u> °C w/ CF: <u>-21.63</u> °C	Cooler 5: °C w/ CF: °C
Cooler 3: °C w/ CF: °C	Cooler 6: °C w/ CF: °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	Y	
Preservation type:	N	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

Cooler 1: 8103 4444 4846 Cooler 2: 7878 1037 1884

1709621



1709621



Environmental Analysis Request/Chain of Custody

Client: Ameo Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101		Matrix		Analyses Requested												For Lab Use Only																																									
Project Name/#: USDC Penobscot		PN # 3616166352 04A 055		Preservation Codes												SF #: _____																																									
Project Manager: Rod Ferdicton		P.O. # 0012505850														SCR #: _____																																									
Sampler: JB		PWSID: # _____														Preservative Codes H = HCl T = Tissue N = NaCl C = NaOH S = H ₂ SO ₄ P = H ₂ PO ₄ D = Dist.																																									
Phone #: _____		Quote #: _____																																																							
State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														Remarks																																									
Sample Identification <table border="1"> <thead> <tr> <th colspan="2">Collection</th> <th rowspan="2">Grab</th> <th rowspan="2">Composite</th> <th rowspan="2">Soil</th> <th rowspan="2">Sediment</th> <th rowspan="2">Tissue</th> <th rowspan="2">Other:</th> <th rowspan="2">Total # of Containers</th> <th rowspan="2">H₂ 103 ml/L, pd 100 to 20 bag Freeze</th> </tr> <tr> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>BO-04_175N001_091717_MJM_01_VvB</td> <td>09/17/17</td> <td>11:00</td> <td>X</td> <td></td> <td></td> <td></td> <td>1</td> <td>X</td> </tr> <tr> <td>2</td> <td>ESFP_091517_BAT_01_OC</td> <td>09/15/17</td> <td>16:00</td> <td>X</td> <td></td> <td></td> <td></td> <td>1</td> <td>X</td> </tr> <tr> <td>3</td> <td>ESFP_091517_BAT_02_OC</td> <td>09/15/17</td> <td>16:00</td> <td>X</td> <td></td> <td></td> <td></td> <td>1</td> <td>X</td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Collection		Grab	Composite	Soil	Sediment	Tissue	Other:	Total # of Containers	H ₂ 103 ml/L, pd 100 to 20 bag Freeze	Date	Time	1	BO-04_175N001_091717_MJM_01_VvB			09/17/17	11:00	X				1	X	2	ESFP_091517_BAT_01_OC	09/15/17	16:00	X				1	X	3	ESFP_091517_BAT_02_OC	09/15/17	16:00	X				1	X	4											
		Collection										Grab	Composite	Soil	Sediment			Tissue	Other:	Total # of Containers	H ₂ 103 ml/L, pd 100 to 20 bag Freeze																																				
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		2	ESFP_091517_BAT_01_OC	09/15/17	16:00	X				1	X																																														
3	ESFP_091517_BAT_02_OC	09/15/17	16:00	X				1	X																																																
4																																																									
Turnaround Time Requested (TAT) (please check):		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Relinquished by:		Date		Time		Received by:		Date		Time																																											
(Rush TAT is subject to laboratory approval and surcharges.)						9/21/2017		1650																																																	
Notes: FedEx # _____ 5103 4444 4146 # of Coolers _____ Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report Report and EDD to: denise.king@ameco.com / 978-692-6033				Relinquished by:		Date		Time		Received by:		Date		Time																																											
Data Package Options (please check if required) High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>				Relinquished by Commercial Carrier:																																																					
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, format: _____				UPB _____ FedEx _____ Other _____								Temperature upon receipt _____ °C																																													



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 13:07

BO-04_17SN001_091717_MUM_01_WB
1709621-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	63.4	1.66	14.8	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	
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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 13:07

ESFP_091517_BAIT_01_QC
1709621-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	20.1	1.69	15.1	ng/g	400	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	



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Chelmsford MA, 01824

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Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 13:07

ESFP_091517_BAIT_02_QC
1709621-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	0.092	0.078	0.694	ng/g	20	F710226	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	J

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 13:07

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7J10017 - F710226											
Cal Standard (7J10017-CAL1)					Prepared & Analyzed: 09-Oct-17						
Mercury	0.513	-		ng/L	0.50100		102				
Cal Standard (7J10017-CAL2)					Prepared & Analyzed: 09-Oct-17						
Mercury	1.034	-		ng/L	1.0020		103				
Cal Standard (7J10017-CAL3)					Prepared & Analyzed: 09-Oct-17						
Mercury	5.002	-		ng/L	5.0100		99.8				
Cal Standard (7J10017-CAL4)					Prepared & Analyzed: 09-Oct-17						
Mercury	19.38	-		ng/L	20.040		96.7				
Cal Standard (7J10017-CAL5)					Prepared & Analyzed: 09-Oct-17						
Mercury	38.87	-		ng/L	40.080		97.0				
Calibration Blank (7J10017-CCB1)					Prepared & Analyzed: 09-Oct-17						
Mercury	0.043	-		ng/L							
Calibration Blank (7J10017-CCB2)					Prepared & Analyzed: 09-Oct-17						
Mercury	0.018	-		ng/L							
Calibration Blank (7J10017-CCB3)					Prepared & Analyzed: 09-Oct-17						
Mercury	0.027	-		ng/L							
Calibration Blank (7J10017-CCB4)					Prepared & Analyzed: 09-Oct-17						
Mercury	0.074	-		ng/L							
Calibration Blank (7J10017-CCB5)					Prepared & Analyzed: 09-Oct-17						
Mercury	0.084	-		ng/L							

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Reported:
13-Oct-17 13:07

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 7J10017 - F710226

Calibration Blank (7J10017-CCB6)												Prepared & Analyzed: 09-Oct-17
Mercury	0.057	-		ng/L								
Calibration Blank (7J10017-CCB7)												Prepared & Analyzed: 09-Oct-17
Mercury	0.073	-		ng/L								
Calibration Blank (7J10017-CCB8)												Prepared & Analyzed: 09-Oct-17
Mercury	0.083	-		ng/L								
Calibration Blank (7J10017-CCB9)												Prepared & Analyzed: 09-Oct-17
Mercury	0.089	-		ng/L								
Calibration Blank (7J10017-CCBA)												Prepared & Analyzed: 09-Oct-17
Mercury	0.051	-		ng/L								
Calibration Check (7J10017-CCV1)												Prepared & Analyzed: 09-Oct-17
Mercury	4.763	-		ng/L	5.0000		95.3	77-123				
Calibration Check (7J10017-CCV2)												Prepared & Analyzed: 09-Oct-17
Mercury	4.881	-		ng/L	5.0000		97.6	77-123				
Calibration Check (7J10017-CCV3)												Prepared & Analyzed: 09-Oct-17
Mercury	4.840	-		ng/L	5.0000		96.8	77-123				
Calibration Check (7J10017-CCV4)												Prepared & Analyzed: 09-Oct-17
Mercury	4.897	-		ng/L	5.0000		97.9	77-123				
Calibration Check (7J10017-CCV5)												Prepared & Analyzed: 09-Oct-17
Mercury	4.677	-		ng/L	5.0000		93.5	77-123				

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 7J10017 - F710226

Calibration Check (7J10017-CCV6)												Prepared & Analyzed: 09-Oct-17
Mercury	4.825	-		ng/L	5.0000		96.5	77-123				
Calibration Check (7J10017-CCV7)												Prepared & Analyzed: 09-Oct-17
Mercury	4.702	-		ng/L	5.0000		94.0	77-123				
Calibration Check (7J10017-CCV8)												Prepared & Analyzed: 09-Oct-17
Mercury	4.858	-		ng/L	5.0000		97.2	77-123				
Calibration Check (7J10017-CCV9)												Prepared & Analyzed: 09-Oct-17
Mercury	5.031	-		ng/L	5.0000		101	77-123				
Calibration Check (7J10017-CCVA)												Prepared & Analyzed: 09-Oct-17
Mercury	4.957	-		ng/L	5.0000		99.1	77-123				
Instrument Blank (7J10017-IBL1)												Prepared & Analyzed: 09-Oct-17
Mercury	ND	0.004	0.040	ng/L							U	
Instrument Blank (7J10017-IBL2)												Prepared & Analyzed: 09-Oct-17
Mercury	ND	0.004	0.040	ng/L							U	
Instrument Blank (7J10017-IBL3)												Prepared & Analyzed: 09-Oct-17
Mercury	ND	0.004	0.040	ng/L							U	
Initial Cal Check (7J10017-ICV1)												Prepared & Analyzed: 09-Oct-17
Mercury	4.986	-		ng/L	5.0000		99.7	79-121				

Batch F710226 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F710226-BLK1)												Prepared: 05-Oct-17 Analyzed: 09-Oct-17
Mercury	0.177	0.090	0.800	ng/g							J	

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13-Oct-17 13:07

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710226 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F710226-BLK2) Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	ND	0.090	0.800	ng/g							U
Blank (F710226-BLK3) Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	ND	0.090	0.800	ng/g							U
Blank (F710226-BLK4) Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	ND	0.090	0.800	ng/g							F-03, U
Blank (F710226-BLK5) Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	ND	0.090	0.800	ng/g							F-03, U
Blank (F710226-BLK6) Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	ND	0.090	0.800	ng/g							F-03, U
Blank (F710226-BLK7) Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	ND	0.090	0.800	ng/g							F-03, U
LCS (F710226-BS1) Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	8.256	0.090	0.800	ng/g	8.0160		103	75-125			
LCS (F710226-BS2) Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	322.0	3.58	32.0	ng/g	373.70		86.2	75-125			
LCS Dup (F710226-BSD1) Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	8.212	0.090	0.800	ng/g	8.0160		102	75-125	0.529	24	
Duplicate (F710226-DUP1) Source: 1709620-06 Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	120.1	1.62	14.5	ng/g		109.1			9.63	24	

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The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King

Reported:
13-Oct-17 13:07

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710226 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike (F710226-MS1)		Source: 1709620-06			Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	481.9	1.61	14.4	ng/g	359.71	109.1	104	71-125			
Matrix Spike (F710226-MS2)		Source: 1709621-02			Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	365.8	1.72	15.4	ng/g	384.62	20.14	89.9	71-125			
Matrix Spike Dup (F710226-MSD1)		Source: 1709620-06			Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	488.1	1.71	15.3	ng/g	381.68	109.1	99.3	71-125	4.27	24	
Matrix Spike Dup (F710226-MSD2)		Source: 1709621-02			Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	353.8	1.63	14.5	ng/g	363.64	20.14	91.7	71-125	2.06	24	

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Amy Goodall, Project Manager

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 3616166052.04A.055
Project Manager: Denise King**Reported:**
13-Oct-17 13:07**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- AD This matrix duplicate is an analytical duplicate.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26002-171009-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 09, 2017

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7110017

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	107.86 units	215.72	100.21 units	200.41	102.5 %Rec
SEQ-CAL2	1	1.00 ng/L	209.79 units	209.79	202.14 units	202.14	103.4 %Rec
SEQ-CAL3	1	5.00 ng/L	985.66 units	197.13	978.01 units	195.60	100.0 %Rec
SEQ-CAL4	1	20.00 ng/L	3796.53 units	189.83	3788.88 units	189.44	96.9 %Rec
SEQ-CAL5	1	40.00 ng/L	7608.06 units	190.20	7600.41 units	190.01	97.2 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF 195.52
Corr. St Dev RF +/- 5.81
Corr. RSD CF 3.0% RSD
Uncorr. Mean RF 200.53

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	7.65 units	±2.69	0.04 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.184 ng/L	±0.932
BLK	2	3	0.958 ng/L	±0.098
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: DM 10/10/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hg2600-2	BC	CAL	SEQ-IBL1	1	10/9/2017 10:10:03	86821-1.RAW	10:10:03 AM	7.50				-0.2	-0.001	-0.001	ng/L
Hg2600-2	BC	CAL	SEQ-IBL2	1	10/9/2017 10:14:12	86822-1.RAW	10:14:12 AM	10.42				2.8	0.014	0.014	ng/L
Hg2600-2	BC	CAL	SEQ-IBL3	1	10/9/2017 10:18:20	86823-1.RAW	10:18:20 AM	5.04				-2.6	-0.013	-0.013	ng/L
Hg2600-2	BC	CAL	SEQ-CAL1	1	10/9/2017 10:22:28	86824-1.RAW	10:22:28 AM	107.86				100.2	0.513	0.513	ng/L
Hg2600-2	BC	CAL	SEQ-CAL2	1	10/9/2017 10:26:37	86825-1.RAW	10:26:37 AM	209.79				202.1	1.034	1.034	ng/L
Hg2600-2	BC	CAL	SEQ-CAL3	1	10/9/2017 10:30:45	86826-1.RAW	10:30:45 AM	985.66				978.0	5.002	5.002	ng/L
Hg2600-2	BC	CAL	SEQ-CAL4	1	10/9/2017 10:34:54	86827-1.RAW	10:34:54 AM	3796.53				3788.9	19.378	19.378	ng/L
Hg2600-2	BC	CAL	SEQ-CAL5	1	10/9/2017 10:39:02	86828-1.RAW	10:39:02 AM	7608.06				7600.4	38.873	38.873	ng/L
Hg2600-2	BC	CAL	SEQ-ICV1	1	10/9/2017 10:43:11	86829-1.RAW	10:43:11 AM	982.52				974.9	4.986	4.986	ng/L
Hg2600-2	BC	BLK	F710226-BLK1	20	10/9/2017 10:47:36	86830-1.RAW	10:47:36 AM	29.27		1		21.6	0.111	2.211	ng/L
Hg2600-2	BC	BLK	F710226-BLK2	20	10/9/2017 10:51:44	86831-1.RAW	10:51:44 AM	16.89		1		9.2	0.047	0.945	ng/L
Hg2600-2	BC	BLK	F710226-BLK3	20	10/9/2017 10:55:53	86832-1.RAW	10:55:53 AM	11.51		1		3.9	0.020	0.395	ng/L
Hg2600-2	BC	SAM	*F710226-BLK4	20	10/9/2017 11:00:01	86833-1.RAW	11:00:01 AM	15.96		1		8.3	-0.017	-0.334	ng/L
Hg2600-2	BC	SAM	*F710226-BLK5	20	10/9/2017 11:04:10	86834-1.RAW	11:04:10 AM	17.97		1		10.3	-0.006	-0.128	ng/L
Hg2600-2	BC	SAM	*F710226-BLK6	20	10/9/2017 11:08:18	86835-1.RAW	11:08:18 AM	11.51		1		3.9	-0.039	-0.789	ng/L
Hg2600-2	BC	SAM	*F710226-BLK7	20	10/9/2017 11:12:27	86836-1.RAW	11:12:27 AM	16.19		1		8.5	-0.016	-0.310	ng/L
Hg2600-2	BC	SAM	F710226-BS1	20	10/9/2017 11:16:35	86837-1.RAW	11:16:35 AM	1028.07		1		1020.4	5.160	103.196	ng/L
Hg2600-2	BC	SAM	F710226-BS2	400	10/9/2017 11:20:44	86838-1.RAW	11:20:44 AM	1022.75		1		1015.1	5.133	102.652	ng/L
Hg2600-2	BC	CAL	SEQ-CCV1	1	10/9/2017 11:24:52	86839-1.RAW	11:24:52 AM	992.61		1		985.0	5.035	2013.856	ng/L
Hg2600-2	BC	CAL	SEQ-CCB1	1	10/9/2017 11:29:01	86840-1.RAW	11:29:01 AM	938.92				931.3	4.763	4.763	ng/L
Hg2600-2	BC	SAM	1709620-06	400	10/9/2017 11:33:09	86841-1.RAW	11:33:09 AM	15.99				8.3	0.043	0.043	ng/L
Hg2600-2	BC	SAM	1709620-08	400	10/9/2017 11:37:18	86842-1.RAW	11:37:18 AM	696.10		1		688.4	3.518	1407.251	ng/L
Hg2600-2	BC	SAM	1709620-09	400	10/9/2017 11:41:26	86843-1.RAW	11:41:26 AM	695.70		1		688.0	3.516	1406.433	ng/L
Hg2600-2	BC	SAM	1709620-10	400	10/9/2017 11:45:34	86844-1.RAW	11:45:34 AM	574.94		1		567.3	2.898	1159.380	ng/L
Hg2600-2	BC	SAM	1709620-11	400	10/9/2017 11:49:43	86845-1.RAW	11:49:43 AM	1433.30		1		1425.6	7.289	2915.426	ng/L
Hg2600-2	BC	SAM	1709620-12	400	10/9/2017 11:53:51	86846-1.RAW	11:53:51 AM	601.47		1		593.8	3.034	1213.656	ng/L
Hg2600-2	BC	SAM	1709620-13	400	10/9/2017 11:58:00	86847-1.RAW	11:58:00 AM	482.22		1		474.6	2.424	969.692	ng/L
Hg2600-2	BC	SAM	1709620-14	400	10/9/2017 12:02:08	86848-1.RAW	12:02:08 PM	658.96		1		651.3	3.328	1331.270	ng/L
Hg2600-2	BC	SAM	1709620-15	400	10/9/2017 12:06:17	86849-1.RAW	12:06:17 PM	930.75		1		923.1	4.718	1887.302	ng/L
Hg2600-2	BC	SAM	1709620-16	400	10/9/2017 12:10:25	86850-1.RAW	12:10:25 PM	923.15		1		915.5	4.679	1871.754	ng/L
Hg2600-2	BC	CAL	SEQ-CCV2	1	10/9/2017 12:14:34	86851-1.RAW	12:14:34 PM	473.71		1		466.1	2.381	952.282	ng/L
Hg2600-2	BC	CAL	SEQ-CCB2	1	10/9/2017 12:18:42	86852-1.RAW	12:18:42 PM	961.95				954.3	4.881	4.881	ng/L
Hg2600-2	BC	SAM	1709620-17	400	10/9/2017 12:22:50	86853-1.RAW	12:22:50 PM	11.21				3.6	0.018	0.018	ng/L
Hg2600-2	BC	SAM	1709620-18	400	10/9/2017 12:26:59	86854-1.RAW	12:26:59 PM	977.31		1		969.7	4.956	1982.555	ng/L
Hg2600-2	BC	SAM	1709620-19	400	10/9/2017 12:31:07	86855-1.RAW	12:31:07 PM	791.53		1		783.9	4.006	1602.483	ng/L
Hg2600-2	BC	SAM	1709620-20	400	10/9/2017 12:35:16	86856-1.RAW	12:35:16 PM	700.72		1		693.1	3.542	1416.703	ng/L
Hg2600-2	BC	SAM	1709621-01	400	10/9/2017 12:39:24	86857-1.RAW	12:39:24 PM	1720.43		1		1712.8	8.757	3502.841	ng/L
Hg2600-2	BC	SAM	1709621-02	400	10/9/2017 12:43:33	86858-1.RAW	12:43:33 PM	426.30		1		418.6	2.138	855.290	ng/L
Hg2600-2	BC	SAM	1709621-03	400	10/9/2017 12:47:41	86859-1.RAW	12:47:41 PM	138.68		1		131.0	0.667	266.873	ng/L
Hg2600-2	BC	SAM	1709622-01	400	10/9/2017 12:51:50	86860-1.RAW	12:51:50 PM	11.47		1		3.8	0.017	6.625	ng/L
Hg2600-2	BC	SAM	1709622-03	400	10/9/2017 12:55:58	86861-1.RAW	12:55:58 PM	218.58		1		210.9	1.076	430.334	ng/L
Hg2600-2	BC	SAM	1709622-04	400	10/9/2017 13:00:06	86862-1.RAW	1:00:06 PM	268.02		1		260.4	1.329	531.479	ng/L
Hg2600-2	BC	CAL	SEQ-CCV3	1	10/9/2017 13:04:15	86863-1.RAW	1:04:15 PM	224.91		1		217.3	1.108	443.284	ng/L
Hg2600-2	BC	CAL	SEQ-CCB3	1	10/9/2017 13:08:23	86864-1.RAW	1:08:23 PM	953.90				946.2	4.840	4.840	ng/L
Hg2600-2	BC	SAM	ws	1	10/9/2017 13:12:32	86865-1.RAW	1:12:32 PM	13.01				5.4	0.027	0.027	ng/L
Hg2600-2	BC	SAM	1709621-01RE1	20	10/9/2017 13:25:38	86866-1.RAW	1:25:38 PM	30.24		x		22.6	0.116	0.000	ng/L
Hg2600-2	BC	SAM	1709621-02RE1	20	10/9/2017 13:29:46	86867-1.RAW	1:29:46 PM	7496.90		1		7489.2	38.245	764.897	ng/L
Hg2600-2	BC	SAM	F710226-DUP1	400	10/9/2017 13:33:54	86868-1.RAW	1:33:54 PM	2109.17		1		2101.5	10.689	213.782	ng/L
Hg2600-2	BC	SAM	F710226-MS1	400	10/9/2017 13:38:03	86869-1.RAW	1:38:03 PM	818.53		1		810.9	4.144	1657.720	ng/L
Hg2600-2	BC	SAM	F710226-MSD1	400	10/9/2017 13:42:11	86870-1.RAW	1:42:11 PM	3282.51		1		3274.9	16.746	6698.569	ng/L
Hg2600-2	BC	SAM	F710226-MS2	400	10/9/2017 13:46:20	86871-1.RAW	1:46:20 PM	3133.92		1		3126.3	15.986	6394.581	ng/L
Hg2600-2	BC	SAM	F710226-MSD2	400	10/9/2017 13:50:28	86872-1.RAW	1:50:28 PM	2332.71		1		2325.1	11.889	4755.453	ng/L
Hg2600-2	BC	SAM	1709621-01RE2	400	10/9/2017 13:54:37	86873-1.RAW	1:54:37 PM	2385.86		1		2378.2	12.160	4864.188	ng/L
Hg2600-2	BC	SAM	1709621-02RE2	400	10/9/2017 13:58:45	86874-1.RAW	1:58:45 PM	445.60		1		437.9	2.237	894.775	ng/L
Hg2600-2	BC	SAM	1709621-03RE1	20	10/9/2017 14:02:54	86875-1.RAW	2:02:54 PM	144.21		1		136.6	0.695	278.186	ng/L
Hg2600-2	BC	CAL	SEQ-CCV4	1	10/9/2017 14:07:02	86876-1.RAW	2:07:02 PM	32.22		1		24.6	0.066	1.329	ng/L
Hg2600-2	BC	CAL	SEQ-CCV4	1	10/9/2017 14:11:10	86877-1.RAW	2:11:10 PM	965.12				957.5	4.897	4.897	ng/L

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP					
Hg2600-2	BC	CAL	SEQ-CCB4	1	10/9/2017 14:15:19	86878-1.RAW	2:15:19 PM	22.15								
Hg2600-2	BC	SAM	*F710227-BLK1	20	10/9/2017 14:19:27	86879-1.RAW	2:19:27 PM	18.38				14.5	0.074	0.074	ng/L	
Hg2600-2	BC	SAM	*F710227-BLK2	20	10/9/2017 14:23:36	86880-1.RAW	2:23:36 PM	15.01				10.7	0.007	0.139	ng/L	
Hg2600-2	BC	SAM	*F710227-BLK3	20	10/9/2017 14:27:44	86881-1.RAW	2:27:44 PM	17.33				7.4	-0.010	-0.206	ng/L	
Hg2600-2	BC	SAM	F710227-BS1	20	10/9/2017 14:31:53	86882-1.RAW	2:31:53 PM	972.26				9.7	0.002	0.031	ng/L	
Hg2600-2	BC	SAM	F710227-BSD1	20	10/9/2017 14:36:01	86883-1.RAW	2:36:01 PM	996.22				964.6	4.886	97.712	ng/L	
Hg2600-2	BC	SAM	F710227-BS2	400	10/9/2017 14:40:09	86884-1.RAW	2:40:09 PM	1079.81				988.6	5.008	100.163	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 14:44:18	86885-1.RAW	2:44:18 PM	526.56				1072.2	5.481	2192.476	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 14:48:26	86886-1.RAW	2:48:26 PM	537.68		x		518.9	2.654	1061.587	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 14:52:35	86887-1.RAW	2:52:35 PM	440.83		x		530.0	2.711	1084.337	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 14:56:43	86888-1.RAW	2:56:43 PM	1121.65		x		433.2	2.215	886.199	ng/L	
Hg2600-2	BC	SAM	ws	1	10/9/2017 15:00:52	86889-1.RAW	3:00:52 PM	502.84		x		1114.0	5.698	2279.031	ng/L	
Hg2600-2	BC	SAM	ws	1	10/9/2017 15:05:00	86890-1.RAW	3:05:00 PM	417.53		x		495.2	2.533	2.533	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 15:09:09	86891-1.RAW	3:09:09 PM	552.79		x		409.9	2.096	2.096	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 15:13:17	86892-1.RAW	3:13:17 PM	801.05		x		545.1	2.788	1115.249	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 15:17:26	86893-1.RAW	3:17:26 PM	818.05		x		793.4	4.058	1623.143	ng/L	
Hg2600-2	BC	SAM	ws	400	10/9/2017 15:22:23	86895-1.RAW	3:22:23 PM	478.40		x		810.4	4.145	1657.922	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	10/9/2017 15:36:31	86896-1.RAW	3:36:31 PM	922.10				470.7	2.408	0.000	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	10/9/2017 15:40:40	86897-1.RAW	3:40:40 PM	24.10				914.4	4.677	4.677	ng/L	
Hg2600-2	BC	SAM	1709622-02	400	10/9/2017 15:44:48	86894-2.RAW	3:44:48 PM	544.75		2		16.4	0.084	0.084	ng/L	
Hg2600-2	BC	SAM	1709622-05	400	10/9/2017 15:48:56	86898-1.RAW	3:48:56 PM	214.31		2		537.1	2.745	1097.842	ng/L	
Hg2600-2	BC	SAM	1709622-06	400	10/9/2017 15:53:05	86899-1.RAW	3:53:05 PM	542.31		2		206.7	1.055	421.823	ng/L	
Hg2600-2	BC	SAM	1709622-07	400	10/9/2017 15:57:13	86900-1.RAW	3:57:13 PM	530.18		2		534.7	2.732	1092.850	ng/L	
Hg2600-2	BC	SAM	1709622-08	400	10/9/2017 16:01:22	86901-1.RAW	4:01:22 PM	232.01		2		522.5	2.670	1068.035	ng/L	
Hg2600-2	BC	SAM	1709622-09	400	10/9/2017 16:05:30	86902-1.RAW	4:05:30 PM	175.07		2		224.4	1.145	458.034	ng/L	
Hg2600-2	BC	SAM	1709622-10	400	10/9/2017 16:09:39	86903-1.RAW	4:09:39 PM	256.91		2		167.4	0.854	341.545	ng/L	
Hg2600-2	BC	SAM	1709622-11	400	10/9/2017 16:13:47	86904-1.RAW	4:13:47 PM	268.22		2		249.3	1.272	508.975	ng/L	
Hg2600-2	BC	SAM	1709622-12	400	10/9/2017 16:17:56	86905-1.RAW	4:17:56 PM	189.95		2		260.6	1.330	532.113	ng/L	
Hg2600-2	BC	SAM	1709622-13	400	10/9/2017 16:22:04	86906-1.RAW	4:22:04 PM	452.05		2		182.3	0.930	371.987	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	10/9/2017 16:26:13	86907-1.RAW	4:26:13 PM	951.03				444.4	2.270	908.195	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	10/9/2017 16:30:21	86908-1.RAW	4:30:21 PM	18.86				943.4	4.825	4.825	ng/L	
Hg2600-2	BC	SAM	1709622-14	400	10/9/2017 16:34:29	86909-1.RAW	4:34:29 PM	293.26		2		11.2	0.057	0.057	ng/L	
Hg2600-2	BC	SAM	1709622-15	400	10/9/2017 16:38:37	86910-1.RAW	4:38:37 PM	256.67		2		285.6	1.458	583.340	ng/L	
Hg2600-2	BC	SAM	1709622-16	400	10/9/2017 16:42:45	86911-1.RAW	4:42:45 PM	245.95		2		249.0	1.271	508.484	ng/L	
Hg2600-2	BC	SAM	1709622-17	400	10/9/2017 16:46:53	86912-1.RAW	4:46:53 PM	412.01		2		238.3	1.216	486.553	ng/L	
Hg2600-2	BC	BLK	F710227-BLK4	20	10/9/2017 16:51:01	86913-1.RAW	4:51:01 PM	17.98		2		404.4	2.066	826.281	ng/L	
Hg2600-2	BC	BLK	F710227-BLK5	20	10/9/2017 16:55:10	86914-1.RAW	4:55:10 PM	17.03		2		10.3	0.053	1.056	ng/L	
Hg2600-2	BC	BLK	F710227-BLK6	20	10/9/2017 16:59:18	86915-1.RAW	4:59:18 PM	16.06		2		9.4	0.048	0.959	ng/L	
Hg2600-2	BC	SAM	F710227-BS3	20	10/9/2017 17:03:27	86916-1.RAW	5:03:27 PM	951.49		2		8.4	0.043	0.860	ng/L	
Hg2600-2	BC	SAM	F710227-BSD3	20	10/9/2017 17:07:35	86917-1.RAW	5:07:35 PM	994.78		2		943.8	4.779	95.587	ng/L	
Hg2600-2	BC	SAM	F710227-BS4	400	10/9/2017 17:11:43	86918-1.RAW	5:11:43 PM	1069.17		2		987.1	5.001	100.015	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	10/9/2017 17:15:52	86919-1.RAW	5:15:52 PM	926.97				1061.5	5.427	2170.709	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	10/9/2017 17:20:00	86920-1.RAW	5:20:00 PM	21.86				919.3	4.702	4.702	ng/L	
Hg2600-2	BC	SAM	1709622-18	400	10/9/2017 17:24:09	86921-1.RAW	5:24:09 PM	263.61		2		14.2	0.073	0.073	ng/L	
Hg2600-2	BC	SAM	1709622-19	400	10/9/2017 17:28:17	86922-1.RAW	5:28:17 PM	274.44		2		256.0	1.307	522.682	ng/L	
Hg2600-2	BC	SAM	1709622-20	400	10/9/2017 17:32:25	86923-1.RAW	5:32:25 PM	215.74		2		266.8	1.362	544.838	ng/L	
Hg2600-2	BC	SAM	1709623-01	400	10/9/2017 17:36:34	86924-1.RAW	5:36:34 PM	132.65		2		208.1	1.062	424.748	ng/L	
Hg2600-2	BC	SAM	1709623-02	400	10/9/2017 17:40:42	86925-1.RAW	5:40:42 PM	102.53		2		125.0	0.637	254.762	ng/L	
Hg2600-2	BC	SAM	1709623-03	400	10/9/2017 17:44:51	86926-1.RAW	5:44:51 PM	56.79		2		94.9	0.483	193.142	ng/L	
Hg2600-2	BC	SAM	F710227-DUP1	400	10/9/2017 17:48:59	86927-1.RAW	5:48:59 PM	424.13		2		49.1	0.249	99.566	ng/L	
Hg2600-2	BC	SAM	F710227-MS1	400	10/9/2017 17:53:08	86928-1.RAW	5:53:08 PM	2590.37		2		416.5	2.128	851.076	ng/L	
Hg2600-2	BC	SAM	F710227-MSD1	400	10/9/2017 17:57:16	86929-1.RAW	5:57:16 PM	2714.86		2		2582.7	13.207	5282.803	ng/L	
Hg2600-2	BC	SAM	F710227-MS2	400	10/9/2017 18:01:24	86930-1.RAW	6:01:24 PM	2272.57		2		2707.2	13.844	5537.486	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8	1	10/9/2017 18:05:33	86931-1.RAW	6:05:33 PM	957.57				2264.9	11.582	4632.643	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB8	1	10/9/2017 18:09:41	86932-1.RAW	6:09:41 PM	23.89				949.9	4.858	4.858	ng/L	
Hg2600-2	BC	SAM	F710227-MSD2	400	10/9/2017 18:13:50	86933-1.RAW	6:13:50 PM	2112.72		2		16.2	0.083	0.083	ng/L	
Hg2600-2	BC	SAM	1709623-01RE1	50	10/9/2017 18:17:58	86934-1.RAW	6:17:58 PM	930.20		2		2105.1	10.764	4305.619	ng/L	
Hg2600-2	BC	SAM	1709623-02RE1	50	10/9/2017 18:22:06	86935-1.RAW	6:22:06 PM	739.31		2		922.5	4.699	234.962	ng/L	
Hg2600-2	BC	SAM	1709623-03RE1	50	10/9/2017 18:26:15	86936-1.RAW	6:26:15 PM	391.00		2		731.7	3.723	186.146	ng/L	
Hg2600-2	BC	SAM	F710227-DUP2	400	10/9/2017 18:30:23	86937-1.RAW	6:30:23 PM	1979.26		2		383.3	1.941	97.074	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV9	1	10/9/2017 18:34:32	86938-1.RAW	6:34:32 PM	991.38				1971.6	10.081	4032.585	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB9	1	10/9/2017 18:38:40	86939-1.RAW	6:38:40 PM	25.14				983.7	5.031	5.031	ng/L	
Hg2600-2	BC	SAM	F710227-DUP3	400	10/9/2017 18:43:53	86940-1.RAW	6:43:53 PM	528.27		2		17.5	0.089	0.089	ng/L	
Hg2600-2	BC	CAL	SEQ-CCVA	1	10/9/2017 18:48:01	86941-1.RAW	6:48:01 PM	976.82				520.6	2.660	1064.127	ng/L	
Hg2600-2	BC	CAL	SEQ-CCBA	1	10/9/2017 18:52:10	86942-1.RAW	6:52:10 PM	17.59				969.2	4.957	4.957	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	10/9/2017 18:56:18	86943-1.RAW	6:56:18 PM	17.59				9.9	0.051	0.051	ng/L	

TotalMercury
EPA1631

Operat BC BlankSi 7.6567 Calib Eqn: Conc = (Area-7.656 Run Date: 10/9/2017 Blank SD: 2.693651937
 Worksh THg260(CalibFa 195.52 Status: QC Warnings:5/QC E Run Time: 18:39:44 Blank RSD%: 35.18040433
 Method #### R: 1 R²: 1 CF SD: 5.809243066
 Descrip THg26002-171009-1 CF RSD%: 2.971166102

Sample/ID	Location Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean			0.00	9.45					86816-1.RAW	9:50:38	1847.46	Clean	OK	1	
clean			0.00	0.00					86817-1.RAW	9:53:29	0.76	Clean	OK	1	
ws			7.66	0.02					86818-1.RAW	9:57:38	12.02	Sample	OK	1	
ws			7.66	0.00					86819-1.RAW	10:01:46	5.15	Sample	OK	1	
ws			7.66	0.00					86820-1.RAW	10:05:55	6.59	Sample	OK	1	
SEQ-IBL1	A1	1	0.00	0.04					86821-1.RAW	10:10:03	7.50	Sample	OK	1	
SEQ-IBL2	A2	1	0.00	0.05					86822-1.RAW	10:14:12	10.42	Sample	OK	1	
SEQ-IBL3	A3	1	0.00	0.03					86823-1.RAW	10:18:20	5.04	Sample	OK	1	
SEQ-CAL1	A4	1	7.66	0.51			102.50		86824-1.RAW	10:22:28	107.86	Sample	OK	1	
SEQ-CAL2	A5	1	7.66	1.03			103.38		86825-1.RAW	10:26:37	209.79	Sample	OK	1	
SEQ-CAL3	A6	1	7.66	5.00			100.04		86826-1.RAW	10:30:45	985.66	Sample	OK	1	
SEQ-CAL4	A7	1	7.66	19.38			96.89		86827-1.RAW	10:34:54	3796.53	Sample	OK	1	
SEQ-CAL5	A8	1	7.66	38.87			97.18		86828-1.RAW	10:39:02	7608.06	Sample	OK	1	
SEQ-ICV1	A9	1	7.66	4.99			99.72		86829-1.RAW	10:43:11	982.52	Sample	OK	1	
F710226-BLK1	A10	20	7.66	2.21					86830-1.RAW	10:47:36	29.27	Sample	OK	1	
F710226-BLK2	A11	20	7.66	0.94					86831-1.RAW	10:51:44	16.89	Sample	OK	1	
F710226-BLK3	A12	20	7.66	0.39					86832-1.RAW	10:55:53	11.51	Sample	OK	1	
*F710226-BLK4	A13	20	7.66	0.85					86833-1.RAW	11:00:01	15.96	Sample	OK	1	
*F710226-BLK5	A14	20	7.66	1.05					86834-1.RAW	11:04:10	17.97	Sample	OK	1	
*F710226-BLK6	A15	20	7.66	0.39					86835-1.RAW	11:08:18	11.51	Sample	OK	1	
*F710226-BLK7	A16	20	7.66	0.87					86836-1.RAW	11:12:27	16.19	Sample	OK	1	
F710226-BS1	A17	20	7.66	104.38					86837-1.RAW	11:16:35	1028.07	Sample	OK	1	
F710226-BSD1	A18	20	7.66	103.83					86838-1.RAW	11:20:44	1022.75	Sample	OK	1	
F710226-BS2	A19	400	7.66	2015.04					86839-1.RAW	11:24:52	992.61	Sample	OK	1	
SEQ-CCV1	A20	1	7.66	4.76			95.26		86840-1.RAW	11:29:01	938.92	Sample	OK	1	
SEQ-CCB1	A21	1	7.66	0.04			0.00		86841-1.RAW	11:33:09	15.99	Sample	OK	1	
1709620-06	B1	400	7.66	1408.42					86842-1.RAW	11:37:18	696.10	Sample	OK	1	
1709620-08	B2	400	7.66	1407.61					86843-1.RAW	11:41:26	695.70	Sample	OK	1	
1709620-09	B3	400	7.66	1160.56					86844-1.RAW	11:45:34	574.94	Sample	OK	1	
1709620-10	B4	400	7.66	2916.61					86845-1.RAW	11:49:43	1433.30	Sample	OK	1	
1709620-11	B5	400	7.66	1214.84					86846-1.RAW	11:53:51	601.47	Sample	OK	1	
1709620-12	B6	400	7.66	970.86					86847-1.RAW	11:58:00	482.22	Sample	OK	1	
1709620-13	B7	400	7.66	1332.46					86848-1.RAW	12:02:08	658.96	Sample	OK	1	
1709620-14	B8	400	7.66	1888.49					86849-1.RAW	12:06:17	930.75	Sample	OK	1	
1709620-15	B9	400	7.66	1872.94					86850-1.RAW	12:10:25	923.15	Sample	OK	1	
1709620-16	B10	400	7.66	953.45					86851-1.RAW	12:14:34	473.71	Sample	OK	1	
SEQ-CCV2	B11	1	7.66	4.88			97.62		86852-1.RAW	12:18:42	961.95	Sample	OK	1	
SEQ-CCB2	B12	1	7.66	0.02			0.00		86853-1.RAW	12:22:50	11.21	Sample	OK	1	
1709620-17	B13	400	7.66	1983.74					86854-1.RAW	12:26:59	977.31	Sample	OK	1	
1709620-18	B14	400	7.66	1603.67					86855-1.RAW	12:31:07	791.53	Sample	OK	1	
1709620-19	B15	400	7.66	1417.89					86856-1.RAW	12:35:16	700.72	Sample	OK	1	
1709620-20	B16	400	7.66	3504.03					86857-1.RAW	12:39:24	1720.43	Sample	OK	1	
1709621-01	B17	400	7.66	856.47					86858-1.RAW	12:43:33	426.30	Sample	OK	1	
1709621-02	B18	400	7.66	268.04					86859-1.RAW	12:47:41	138.68	Sample	OK	1	
1709621-03	B19	400	7.66	7.79					86860-1.RAW	12:51:50	11.47	Sample	OK	1	
1709622-01	B20	400	7.66	431.51					86861-1.RAW	12:55:58	218.58	Sample	OK	1	
1709622-03	B21	400	7.66	532.65					86862-1.RAW	13:00:06	268.02	Sample	OK	1	
1709622-04	C1	400	7.66	444.46					86863-1.RAW	13:04:15	224.91	Sample	OK	1	
SEQ-CCV3	C2	1	7.66	4.84			96.79		86864-1.RAW	13:08:23	953.90	Sample	OK	1	
SEQ-CCB3	C3	1	7.66	0.03			0.00		86865-1.RAW	13:12:32	13.01	Sample	OK	1	

1709622-18	B4	400	7.66	523.63		86921-1.RAW	17:24:09	263.61	Sample	OK	1
1709622-19	B5	400	7.66	545.79		86922-1.RAW	17:28:17	274.44	Sample	OK	1
1709622-20	B6	400	7.66	425.71		86923-1.RAW	17:32:25	215.74	Sample	OK	1
1709623-01	B7	400	7.66	255.72		86924-1.RAW	17:36:34	132.65	Sample	OK	1
1709623-02	B8	400	7.66	194.09		86925-1.RAW	17:40:42	102.53	Sample	OK	1
1709623-03	B9	400	7.66	100.52		86926-1.RAW	17:44:51	56.79	Sample	OK	1
F710227-DUP1	B10	400	7.66	852.03		86927-1.RAW	17:48:59	424.13	Sample	OK	1
F710227-MS1	B11	400	7.66	5283.77	619.41	86928-1.RAW	17:53:08	2590.37	Sample	OK	1
F710227-MSD1	B12	400	7.66	5538.45		86929-1.RAW	17:57:16	2714.86	Sample	OK	1
F710227-MS2	B13	400	7.66	4633.60	83.63	86930-1.RAW	18:01:24	2272.57	Sample	OK	1
SEQ-CCV8	B14	1	7.66	4.86	97.17	86931-1.RAW	18:05:33	957.57	Sample	OK	1
SEQ-CCB8	B15	1	7.66	0.08	0.00	86932-1.RAW	18:09:41	23.89	Sample	OK	1
F710227-MSD2	B16	400	7.66	4306.58		86933-1.RAW	18:13:50	2112.72	Sample	OK	1
1709623-01RE1	B19	50	7.66	235.92		86934-1.RAW	18:17:58	930.20	Sample	OK	1
1709623-02RE1	B20	50	7.66	187.10		86935-1.RAW	18:22:06	739.31	Sample	OK	1
1709623-03RE1	B21	50	7.66	98.03		86936-1.RAW	18:26:15	391.00	Sample	OK	1
F710227-DUP2	C1	400	7.66	4033.55		86937-1.RAW	18:30:23	1979.26	Sample	OK	1
SEQ-CCV9	B17	1	7.66	5.03	100.63	86938-1.RAW	18:34:32	991.38	Sample	OK	1
SEQ-CCB9	B18	1	7.66	0.09	0.00	86939-1.RAW	18:38:40	25.14	Sample	OK	1
F710227-DUP3	C4	400	7.66	1065.07		86940-1.RAW	18:43:53	528.27	Sample	OK	1
SEQ-CCVA	C2	1	7.66	4.96		86941-1.RAW	18:48:01	976.82	Sample	OK	1
SEQ-CCBA	C3	1	7.66	0.05		86942-1.RAW	18:52:10	17.59	Sample	OK	1

ANALYSIS SEQUENCE

7J10017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/9/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J10017-IBL1	QC	1			
7J10017-IBL2	QC	2			
7J10017-IBL3	QC	3			
7J10017-CAL1	QC	4	1704505		
7J10017-CAL2	QC	5	1704506		
7J10017-CAL3	QC	6	1704507		
7J10017-CAL4	QC	7	1704508		
7J10017-CAL5	QC	8	1704509		
7J10017-ICV1	QC	9	1705628		
F710226-BLK1	QC	10			
F710226-BLK2	QC	11			
F710226-BLK3	QC	12			
F710226-BLK4	QC	13			
F710226-BLK5	QC	14			
F710226-BLK6	QC	15			
F710226-BLK7	QC	16			
F710226-BS1	QC	17			
F710226-BSD1	QC	18			
F710226-BS2	QC	19			
7J10017-CCV1	QC	20	1705628		
7J10017-CCB1	QC	21			
1709620-06	Hg-CVAFS-T-7030	22			
1709620-08	Hg-CVAFS-T-7030	23			
1709620-09	Hg-CVAFS-T-7030	24			
1709620-10	Hg-CVAFS-T-7030	25			
1709620-11	Hg-CVAFS-T-7030	26			
1709620-12	Hg-CVAFS-T-7030	27			
1709620-13	Hg-CVAFS-T-7030	28			
1709620-14	Hg-CVAFS-T-7030	29			
1709620-15	Hg-CVAFS-T-7030	30			
1709620-16	Hg-CVAFS-T-7030	31			
7J10017-CCV2	QC	32	1705628		
7J10017-CCB2	QC	33			
1709620-17	Hg-CVAFS-T-7030	34			
1709620-18	Hg-CVAFS-T-7030	35			

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7J10017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

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Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709620-19	Hg-CVAFS-T-7030	36			
1709620-20	Hg-CVAFS-T-7030	37			
1709621-01	Hg-CVAFS-T-7030	38			
1709621-02	Hg-CVAFS-T-7030	39			
1709621-03	Hg-CVAFS-T-7030	40			
1709622-01	Hg-CVAFS-T-7030	41			
1709622-03	Hg-CVAFS-T-7030	42			
1709622-04	Hg-CVAFS-T-7030	43			
7J10017-CCV3	QC	44	1705628		
7J10017-CCB3	QC	45			
1709621-01RE1	Hg-CVAFS-T-7030	46			Added 10/10/2017 by BC
1709621-02RE1	Hg-CVAFS-T-7030	47			Added 10/10/2017 by BC
F710226-DUP1	QC	48			
F710226-MS1	QC	49			
F710226-MSD1	QC	50			
F710226-MS2	QC	51			
F710226-MSD2	QC	52			
1709621-01RE2	Hg-CVAFS-T-7030	53			Added 10/10/2017 by BC
1709621-02RE2	Hg-CVAFS-T-7030	54			Added 10/10/2017 by BC
1709621-03RE1	Hg-CVAFS-T-7030	55			Added 10/10/2017 by BC
7J10017-CCV4	QC	56	1705628		
7J10017-CCB4	QC	57			
F710227-BLK1	QC	58			
F710227-BLK2	QC	59			
F710227-BLK3	QC	60			
F710227-BS1	QC	61			
F710227-BSD1	QC	62			
F710227-BS2	QC	63			
7J10017-CCV5	QC	64	1705628		
7J10017-CCB5	QC	65			
1709622-02	Hg-CVAFS-T-7030	66			
1709622-05	Hg-CVAFS-T-7030	67			
1709622-06	Hg-CVAFS-T-7030	68			
1709622-07	Hg-CVAFS-T-7030	69			
1709622-08	Hg-CVAFS-T-7030	70			

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7J10017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

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Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709622-09	Hg-CVAFS-T-7030	71			
1709622-10	Hg-CVAFS-T-7030	72			
1709622-11	Hg-CVAFS-T-7030	73			
1709622-12	Hg-CVAFS-T-7030	74			
1709622-13	Hg-CVAFS-T-7030	75			
7J10017-CCV6	QC	76	1705628		
7J10017-CCB6	QC	77			
1709622-14	Hg-CVAFS-T-7030	78			
1709622-15	Hg-CVAFS-T-7030	79			
1709622-16	Hg-CVAFS-T-7030	80			
1709622-17	Hg-CVAFS-T-7030	81			
F710227-BLK4	QC	82			
F710227-BLK5	QC	83			
F710227-BLK6	QC	84			
F710227-BS3	QC	85			
F710227-BSD3	QC	86			
F710227-BS4	QC	87			
7J10017-CCV7	QC	88	1705628		
7J10017-CCB7	QC	89			
1709622-18	Hg-CVAFS-T-7030	90			
1709622-19	Hg-CVAFS-T-7030	91			
1709622-20	Hg-CVAFS-T-7030	92			
1709623-01	Hg-CVAFS-T-7030	93			
1709623-02	Hg-CVAFS-T-7030	94			
1709623-03	Hg-CVAFS-T-7030	95			
F710227-DUP1	QC	96			
F710227-MS1	QC	97			
F710227-MSD1	QC	98			
F710227-MS2	QC	99			
7J10017-CCV8	QC	100	1705628		
7J10017-CCB8	QC	101			
F710227-MSD2	QC	102			
1709623-01RE1	Hg-CVAFS-T-7030	103			Added 10/10/2017 by BC
1709623-02RE1	Hg-CVAFS-T-7030	104			Added 10/10/2017 by BC
1709623-03RE1	Hg-CVAFS-T-7030	105			Added 10/10/2017 by BC

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Calibration ID: UNASSIGNED

Analyzed: 10/9/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F710227-DUP2	QC	106			
7J10017-CCV9	QC	107	1705628		
7J10017-CCB9	QC	108			
F710227-DUP3	QC	109			
7J10017-CCVA	QC	110	1705628		
7J10017-CCBA	QC	111			

Beavis 10/10/17
Samples Loaded By Date

Beavis 10/10/17
Data Processed By Date

104-2
10/9/17

Failing Data Report - 7J10017

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F710227-DUP1	Hg-CVAFS-T-7030	64.23	15.1	87.83	87.83		ng/g				31.0	24.00	PASS-OVER	FAIL-DUP	QR-07
F710227-DUP2	Hg-CVAFS-T-7030	322.6	16.0	87.83	87.83		ng/g				114	24.00	PASS-OVER	FAIL-DUP	AD

Becj 10/10/17
 Analyst Reviewed By Date

Don Makem 10/10/17
 Peer Reviewed By Date

PREPARATION BENCH SHEET

F710226

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710226-BLK1	Blank	0.25	20					
F710226-BLK2	Blank	0.25	20					
F710226-BLK3	Blank	0.25	20					
F710226-BLK4	Blank	0.25	20					1st Set Pre-homogenization Blank for 1709621/1709622/1709623
F710226-BLK5	Blank	0.25	20					1st Set Post-homogenization Blank for 1709621/1709622/1709623
F710226-BLK6	Blank	0.25	20					2nd Set Pre-homogenization Blank for 1709621/1709622/1709623
F710226-BLK7	Blank	0.25	20					2nd Set Post-homogenization Blank for 1709621/1709622/1709623
F710226-BS1	LCS	0.25	20	1704421	20			
F710226-BS2	DORM4	0.1251	20	1705412	125.1			
F710226-BSD1	LCS Dup	0.25	20	1704421	20			
F710226-DUP1	Duplicate [1709620-06]	0.276	20					
F710226-MS1	Matrix Spike [1709620-06]	0.278	20	1705554	100			
F710226-MS2	Matrix Spike [1709621-02]	0.26	20	1705554	100			
F710226-MSD1	Matrix Spike Dup [1709620-06]	0.262	20	1705554	100			
F710226-MSD2	Matrix Spike Dup [1709621-02]	0.275	20	1705554	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl2 THg reductant	13-Mar-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705959	5% BrCl	22-Jan-18 00:00

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710226

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709620-06	MMMC-01_17MT003_092017_MUM_06_WB	0.258	20	QC	-	-	ms/msd	
1709620-08	MMMC-01_17MT003_092017_MUM_08_WB	0.264	20	-	-	-		
1709620-09	MMMC-01_17MT003_092017_MUM_09_WB	0.263	20	-	-	-		
1709620-10	MMMC-01_17MT003_092017_MUM_10_WB	0.282	20	-	-	-		
1709620-11	MMMC-01_17MT003_092017_MUM_11_WB	0.257	20	-	-	-		
1709620-12	MMMC-01_17MT003_092017_MUM_12_WB	0.265	20	-	-	-		
1709620-13	MMMC-01_17MT003_092017_MUM_13_WB	0.255	20	-	-	-		
1709620-14	MMMC-01_17MT003_092017_MUM_14_WB	0.252	20	-	-	-		
1709620-15	MMMC-01_17MT003_092017_MUM_15_WB	0.258	20	-	-	-		
1709620-16	MMMC-01_17MT003_092017_MUM_16_WB	0.263	20	-	-	-		
1709620-17	MMMC-01_17MT003_092017_MUM_17_WB	0.292	20	-	-	-		
1709620-18	MMMC-01_17MT003_092017_MUM_18_WB	0.286	20	-	-	-		
1709620-19	MMMC-01_17MT003_092017_MUM_19_WB	0.283	20	-	-	-		
1709620-20	MMMC-01_17MT003_092017_MUM_20_WB	0.274	20	-	-	-		
1709621-01	BO-04_17SN001_091717_MUM_01_WB	0.27	20	-	-	-		
1709621-01RE1	BO-04_17SN001_091717_MUM_01_WB	0.27	20	-	-	-	Added 10/10/2017 by BC	Added 10/10/2017 by BC
1709621-01RE2	BO-04_17SN001_091717_MUM_01_WB	0.27	20	-	-	-	Added 10/10/2017 by BC	Added 10/10/2017 by BC
1709621-02	ESFP_091517_BAIT_01_QC	0.265	20	-	-	-		
1709621-02RE1	ESFP_091517_BAIT_01_QC	0.265	20	-	-	-	Added 10/10/2017 by BC	Added 10/10/2017 by BC

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710226

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

1709621-02RE2	ESFP_091517_BAIT_01_QC	0.265	20	-	-	-	Added 10/10/2017 by BC	Added 10/10/2017 by BC
1709621-03	ESFP_091517_BAIT_02_QC	0.288	20	-	-	-		
1709621-03RE1	ESFP_091517_BAIT_02_QC	0.288	20	-	-	-	Added 10/10/2017 by BC	Added 10/10/2017 by BC
1709622-01	ES-13_17SN001_091417_RAS_01_WB	0.28	20	-	-	-		
1709622-03	ES-13_17SN001_091417_RAS_03_WB	0.252	20	-	-	-		
1709622-04	ES-13_17SN001_091417_RAS_04_WB	0.25	20	-	-	-		

PREPARATION BENCH SHEET

F710227

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710227-BLK1	Blank	0.25	20					
F710227-BLK2	Blank	0.25	20					
F710227-BLK3	Blank	0.25	20					
F710227-BLK4	Blank	0.25	20					
F710227-BLK5	Blank	0.25	20					
F710227-BLK6	Blank	0.25	20					
F710227-BS1	LCS	0.25	20	1704421	20			
F710227-BS2	DORM4	0.127	20	1705412	127			
F710227-BS3	LCS	0.25	20	1704421	20			
F710227-BS4	DORM4	0.127	20	1705412	127			
F710227-BSD1	LCS Dup	0.25	20	1704421	20			
F710227-BSD3	LCS Dup	0.25	20	1704421	20			
F710227-DUP1	Duplicate [1709622-02]	0.265	20					
F710227-DUP2	AD [1709622-02]	0.25	20					
F710227-DUP3	AD [1709622-02]	0.25	20					
F710227-MS1	Matrix Spike [1709622-02]	0.262	20	1705554	100			
F710227-MS2	Matrix Spike [1709623-02RE1]	0.289	20	1705554	100			
F710227-MSD1	Matrix Spike Dup [1709622-02]	0.292	20	1705554	100			
F710227-MSD2	Matrix Spike Dup [1709623-02RE1]	0.275	20	1705554	100			

PREPARATION BENCH SHEET

F710227

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705610	THg Washstation (0.5% BrCl)	
			1705611	THg Dilute 1% BrCl	22-Jan-18 00:00
			1705779	3% SnCl ₂ THg reductant	13-Mar-18 00:00
			1705859	70/30 Digestion Acid	28-Mar-18 00:00
			1705915	5% BrCl	14-Mar-18 00:00
			1705959		22-Jan-18 00:00

PREPARATION BENCH SHEET

F710227

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709622-02	ES-13_17SN001_091417_RAS_02_WB	0.25	20	QC	-	-	MS/MSD	
1709622-05	ES-13_17SN001_091417_RAS_05_WB	0.282	20	-	-	-		
1709622-06	ES-13_17SN001_091417_RAS_06_WB	0.285	20	-	-	-		
1709622-07	ES-13_17SN001_091417_RAS_07_WB	0.271	20	-	-	-		
1709622-08	ES-13_17SN001_091417_RAS_08_WB	0.28	20	-	-	-		
1709622-09	ES-13_17SN001_091417_RAS_09_WB	0.259	20	-	-	-		
1709622-10	ES-13_17SN001_091417_RAS_10_WB	0.272	20	-	-	-		
1709622-11	ES-13_17SN001_091417_RAS_11_WB	0.284	20	-	-	-		
1709622-12	ES-13_17SN001_091417_RAS_12_WB	0.25	20	-	-	-		
1709622-13	ES-13_17SN001_091417_RAS_13_WB	0.288	20	-	-	-		
1709622-14	ES-13_17SN001_091417_RAS_14_WB	0.268	20	-	-	-		
1709622-15	ES-13_17SN001_091417_RAS_15_WB	0.26	20	-	-	-		
1709622-16	ES-13_17SN001_091417_RAS_16_WB	0.28	20	-	-	-		
1709622-17	ES-13_17SN001_091417_RAS_17_WB	0.292	20	-	-	-		
1709622-18	ES-13_17SN001_091417_RAS_18_WB	0.26	20	-	-	-		
1709622-19	ES-13_17SN001_091417_RAS_19_WB	0.286	20	-	-	-		
1709622-20	ES-13_17SN001_091417_RAS_20_WB	0.282	20	-	-	-		
1709623-01	FRB-01_17SN001_091217_RAS_01_WB	0.259	20	-	-	-		
1709623-01RE1	FRB-01_17SN001_091217_RAS_01_WB	0.259	20	-	-	-	Added 10/10/2017 by BC	Added 10/10/2017 by BC

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710227

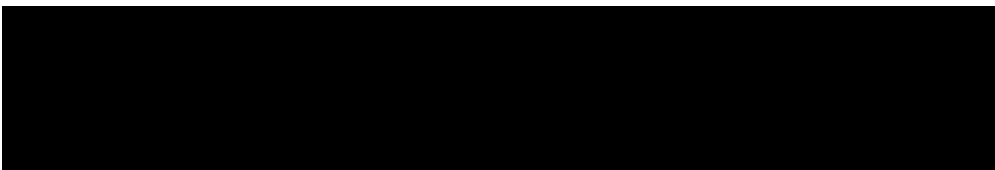
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

1709623-02	FRB-01_17SN001_091217_RAS_02_WB	0.255	20	QC	-	-	MS/MSD	
1709623-02RE1	FRB-01_17SN001_091217_RAS_02_WB	0.255	20	QC	-	-	MS/MSD Added 10/10/2017 by BC	Added 10/10/2017 by BC
1709623-03	FRB-01_17SN001_091217_RAS_03_WB	0.282	20	-	-	-		
1709623-03RE1	FRB-01_17SN001_091217_RAS_03_WB	0.282	20	-	-	-	Added 10/10/2017 by BC	Added 10/10/2017 by BC



PREPARATION BENCH SHEET

2600-2

BC 10/9/17

F710226

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710226-BLK1	Blank	0.25	20					20x
F710226-BLK2	Blank	0.25	20					20x
F710226-BLK3	Blank	0.25	20					20x
F710226-BLK4	Blank	0.25	20					1st Set Pre-homogenization Blank for 1709621/1709622/1709623 20x
F710226-BLK5	Blank	0.25	20					1st Set Post-homogenization Blank for 1709621/1709622/1709623 20x
F710226-BLK6	Blank	0.25	20					2nd Set Pre-homogenization Blank for 1709621/1709622/1709623 20x
F710226-BLK7	Blank	0.25	20					2nd Set Post-homogenization Blank for 1709621/1709622/1709623 20x
F710226-BS1	LCS	0.25	20	1704421	20			20x
F710226-BS2	DORM4	0.1251	20	1705412	125.1			400x
F710226-BSD1	LCS Dup	0.25	20	1704421	20			20x
F710226-DUP1	Duplicate [1709620-06]	0.276	20					400x
F710226-MS1	Matrix Spike [1709620-06]	0.278	20	1705554	100			400x
F710226-MS2	Matrix Spike [1709621-02]	0.26	20	1705554	100			400x
F710226-MSD1	Matrix Spike Dup [1709620-06]	0.262	20	1705554	100			400x
F710226-MSD2	Matrix Spike Dup [1709621-02]	0.275	20	1705554	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00
1705412	DORM-4	06-Jan-20 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705859	70/30 Digestion Acid	28-Mar-18 00:00
1705959	5% BrCl	22-Jan-18 00:00

1705774
1705610
1705611
1703182

20x = 2.5
400x = 125µL

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

BC 10/9/17

F710226

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709620-06	MMMC-01_17MT003_092017_MUM_06_WB	0.258	20	QC	-	-	ms/msd	400x
1709620-08	MMMC-01_17MT003_092017_MUM_08_WB	0.264	20	-	-	-		400x
1709620-09	MMMC-01_17MT003_092017_MUM_09_WB	0.263	20	-	-	-		400x
1709620-10	MMMC-01_17MT003_092017_MUM_10_WB	0.282	20	-	-	-		400x
1709620-11	MMMC-01_17MT003_092017_MUM_11_WB	0.257	20	-	-	-		400x
1709620-12	MMMC-01_17MT003_092017_MUM_12_WB	0.265	20	-	-	-		400x
1709620-13	MMMC-01_17MT003_092017_MUM_13_WB	0.255	20	-	-	-		400x
1709620-14	MMMC-01_17MT003_092017_MUM_14_WB	0.252	20	-	-	-		400x
1709620-15	MMMC-01_17MT003_092017_MUM_15_WB	0.258	20	-	-	-		400x
1709620-16	MMMC-01_17MT003_092017_MUM_16_WB	0.263	20	-	-	-		400x
1709620-17	MMMC-01_17MT003_092017_MUM_17_WB	0.292	20	-	-	-		400x
1709620-18	MMMC-01_17MT003_092017_MUM_18_WB	0.286	20	-	-	-		400x
1709620-19	MMMC-01_17MT003_092017_MUM_19_WB	0.283	20	-	-	-		400x
1709620-20	MMMC-01_17MT003_092017_MUM_20_WB	0.274	20	-	-	-		400x
1709621-01	BO-04_17SN001_091717_MUM_01_WB	0.27	20	-	-	-		400x → 20x → 400x
1709621-02	ESFP_091517_BAIT_01_QC	0.265	20	-	-	-		400x → 20x → 400x
1709621-03	ESFP_091517_BAIT_02_QC	0.288	20	-	-	-		400x → 20x → 400x
1709622-01	ES-13_17SN001_091417_RAS_01_WB	0.28	20	-	-	-		400x
1709622-03	ES-13_17SN001_091417_RAS_03_WB	0.252	20	-	-	-		400x

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2
BL 10/9/17

F710226

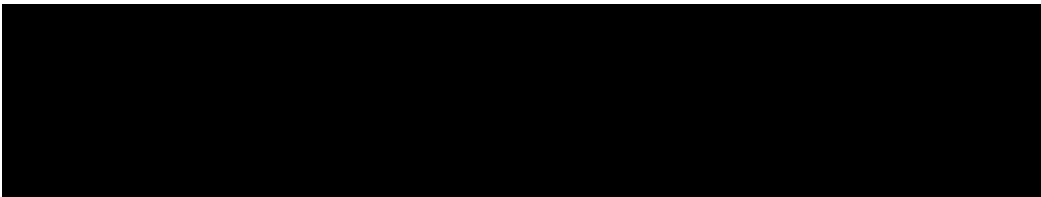
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

1709622-04	ES-13_17SN001_091417_RAS_04_WB	0.25	20	-	-	-	400Y	
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Technician: CWF Batch#: F710226 Date: 10/5/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 4°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6119/DOHNY Calibrated? Yes No Therm.#: 409418012 Calibrated? Yes No
 *Time in: 15:45 Actual Temp. (raw): 79.1 °C w/ CF: 78.6 °C
 Time out: 17:45 Actual Temp. (raw): 89.6 °C w/ CF: 89.3 °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705959) Spike vol.: 100 µL (LIMS ID: 1705554)
 Spike Witness: R 10/5/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: 0007852 Calibration Date: 10/2/17
 HNO₃ LIMS ID: NA Pipette SN#: NA Calibration Date: NA
 70/30 LIMS ID: 1705859 Dispenser #: 0202749 Calibrated? Yes No
 Other Acid LIMS ID: NA Dispenser #: 15406623
 Glass Vial # 00068647 Boiling Chip lot # 1702551 *Hotblock Position: M1

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710226 - BLK1	0.271	23	1709620 - 20	0.274	BS2 = DOHNY LIMS: 1705412
2	F710226 - BLK2	0.278	24	1709621 - 01	0.270	
3	F710226 - BLK3	0.272	25	1709621 - 02	0.265	
4	F710226 - BS1	0.274	26	F710226 - MS2	0.260	Comments
5	F710226 - BSD1	0.256	27	F710226 - MSD2	0.275	DUPI/MS1/MSD1
6	F710226 - BS2	0.1251	28	1709621 - 03	0.288	Source: 1709620-06
7	1709620 - 06	0.258	29	1709622 - 01	0.280	MS2/MSD2
8	F710226 - DUPI	0.276	30	1709622 - 03	0.252	Source: 1709621-02
9	F710226 - MS1	0.278	31	1709622 - 04	0.250	BS1/BSD1 spilled with 1709621 20 mL
10	F710226 - MSD1	0.262	32	F710226 - BLK4	0.297	
11	1709620 - 08	0.264	33	F710226 - BLK5	0.256	BLK4 + 5 are Pre/Post blanks for 1709621, 9622, 9623
12	1709620 - 09	0.263	34	F710226 - BLK6	0.293	
13	1709620 - 10	0.282	35	F710226 - BLK7	0.272	BLK6 + 7 are Pre/Post blanks (Part 2) for 1709621
14	1709620 - 11	0.257	36			
15	1709620 - 12	0.265	37			CWF 10/6/17
16	1709620 - 13	0.255	38			
17	1709620 - 14	0.252	39			CWF 10/6/17
18	1709620 - 15	0.258	40			
19	1709620 - 16	0.263	41			CWF 10/6/17
20	1709620 - 17	0.292	42			
21	1709620 - 18	0.286	43			CWF 10/6/17
22	1709620 - 19	0.283	44			

PREPARATION BENCH SHEET

2000-2

F710227

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710227-BLK1	Blank	0.25	20					20X → 20X
F710227-BLK2	Blank	0.25	20					20X → 20X
F710227-BLK3	Blank	0.25	20					20X → 20X
F710227-BS1	LCS	0.25	20	1704421	20			20X → 20X
F710227-BS2	DORM4	0.127	20	1705412	127			400X → 400X
F710227-BSD1	LCS Dup	0.25	20	1704421	20			20X → 20X
F710227-DUP1	Duplicate [1709622-02]	0.265	20					400X → 400X
F710227-MS1	Matrix Spike [1709622-02]	0.262	20	1705554	100			400X
F710227-MS2	Matrix Spike [1709623-02] RE1	0.289	20	1705554	100			400X
F710227-MSD1	Matrix Spike Dup [1709622-02]	0.292	20	1705554	100			400X
F710227-MSD2	Matrix Spike Dup [1709623-02] RE1	0.275	20	1705554	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705412	DORM-4	06-Jan-20 00:00	1705859	70/30 Digestion Acid	28-Mar-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1705915	5% BrCl	14-Mar-18 00:00
			1705959		22-Jan-18 00:00

BLK1, BLK2, BLK3, BS1, BSD1, BS2 return as BLK4, BLK5, BLK6, BS3, BSD3, BS4

OVER-AD 400X
1709622-02

DUP3 2.1ml OF DUP2

20X = 2.5ml
400X = 125ul
50X = 1ml

1705779
1705610
1705611
1703182

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

F710227

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709622-02	ES-13_17SN001_091417_RAS_02_WB	0.25	20	QC	-	-	MS/MSD 400x	
1709622-05	ES-13_17SN001_091417_RAS_05_WB	0.282	20	-	-	-	400x	
1709622-06	ES-13_17SN001_091417_RAS_06_WB	0.285	20	-	-	-	400x	
1709622-07	ES-13_17SN001_091417_RAS_07_WB	0.271	20	-	-	-	400x	
1709622-08	ES-13_17SN001_091417_RAS_08_WB	0.28	20	-	-	-	400x	
1709622-09	ES-13_17SN001_091417_RAS_09_WB	0.259	20	-	-	-	400x	
1709622-10	ES-13_17SN001_091417_RAS_10_WB	0.272	20	-	-	-	400x	
1709622-11	ES-13_17SN001_091417_RAS_11_WB	0.284	20	-	-	-	400x	
1709622-12	ES-13_17SN001_091417_RAS_12_WB	0.25	20	-	-	-	400x	
1709622-13	ES-13_17SN001_091417_RAS_13_WB	0.288	20	-	-	-	400x	
1709622-14	ES-13_17SN001_091417_RAS_14_WB	0.268	20	-	-	-	400x	
1709622-15	ES-13_17SN001_091417_RAS_15_WB	0.26	20	-	-	-	400x	
1709622-16	ES-13_17SN001_091417_RAS_16_WB	0.28	20	-	-	-	400x	
1709622-17	ES-13_17SN001_091417_RAS_17_WB	0.292	20	-	-	-	400x	
1709622-18	ES-13_17SN001_091417_RAS_18_WB	0.26	20	-	-	-	400x	
1709622-19	ES-13_17SN001_091417_RAS_19_WB	0.286	20	-	-	-	400x	
1709622-20	ES-13_17SN001_091417_RAS_20_WB	0.282	20	-	-	-	400x	
1709623-01	FRB-01_17SN001_091217_RAS_01_WB	0.259	20	-	-	-	400x → 50x	
1709623-02	FRB-01_17SN001_091217_RAS_02_WB	0.255	20	QC	-	-	MS/MSD 400x → 50x	

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600-2

F710227

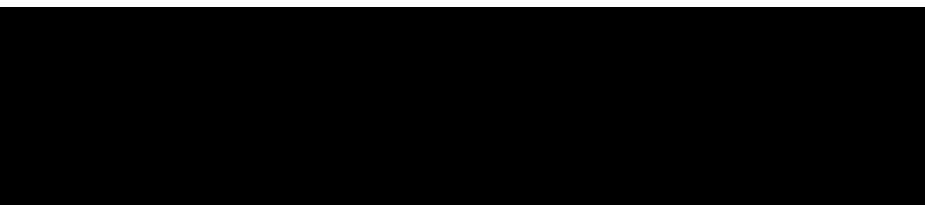
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 10/5/2017

1709623-03	FRB-01_17SN001_091217_RAS_03_WB	0.282	20	-	-	-		H ₂ O ₂ → SO ₂
------------	---------------------------------	-------	----	---	---	---	--	---



Technician: CWF Batch#: F710227 Date: 10/5/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6.19/08204 Calibrated? Yes No Therm. #: 1404882 Calibrated? Yes No

*Time in: 15:45 Actual Temp. (raw): 79.1 °C w/ CF: 78.6 °C

Time out: 17:45 Actual Temp. (raw): 89.6 °C w/ CF: 89.3 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705515) Spike vol.: 100 ^{ms/MSD} µL (LIMS ID: 1705554)

Spike Witness: R 10/5/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: 02057852 Calibration Date: 10/2/17

HNO₃ LIMS ID: NA Pipette SN#: NA Calibration Date: NA

70/30 LIMS ID: 1705859 Dispenser #: 02k2749 Calibrated? Yes No

Other Acid LIMS ID: NA Dispenser #: 15406623

Glass Vial # 00088647 Boiling Chip lot # 1702551 *Hotblock Position: M

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710227 - Blw1	0.257	23	1709622 - 17	0.292	BS2 = DORM4 LIMS: 1705412
2	F710227 - Blw2	0.262	24	1709622 - 18	0.260	
3	F710227 - Blw3	0.271	25	1709622 - 19	0.286	Comments
4	F710227 - BS1	0.251	26	1709622 - 20	0.282	
5	F710227 - BSD1	0.270	27	1709623 - 01	0.259	DUP1/MS1/MSD1 source: 1709622-02
6	F710227 - BS2	0.1270	28	1709623 - 02	0.255	MS2/MSD2 source: 1709623-02
7	1709622 - 02	0.250	29	F710227 - MS2	0.289	
8	F710227 - DUP1	0.265	30	F710227 - MSD2	0.275	BS1/BSD1 spiked with 20µl of 1704421
9	F710227 - MS1	0.262	31	1709623 - 03	0.282	
10	F710227 - MSD1	0.292	32			CWF 10/6/17
11	1709622 - 05	0.282	33			
12	1709622 - 06	0.285	34			
13	1709622 - 07	0.271	35			
14	1709622 - 08	0.280	36			
15	1709622 - 09	0.259	37			
16	1709622 - 10	0.272	38			
17	1709622 - 11	0.284	39			
18	1709622 - 12	0.290	40			
19	1709622 - 13	0.288	41			
20	1709622 - 14	0.268	42			
21	1709622 - 15	0.260	43			
22	1709622 - 16	0.280	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7J10017
Reviewer:	0	Dataset ID(s):	THg26002-171009-1
Date:	10/10/2017	WO (s) #:	0
Batch #(s):	F710226, F710227		0

Analyst Initials BC Reviewer Initials 0

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF ($\leq 15\%$) PASS FAIL
- Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
- Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
- Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
- Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
- Comments: _____
12. Explain any items on the failed data report from Element
- Comments: Dup1 failed (QR-07) Dup2 (AD) reanalyzed as Dup3
13. Are the individual Preparation Blanks $< PQL$ or $< 2.2 \times MDL$ for WI (refer to appropriate prep method PQL list) PASS FAIL
- (a) If not $< PQL$ or $< 2.2 \times MDL$ for WI, note which PB(s) are above control limit:
- (b) Is the mean PB $< PQL$ or $< 2.2 \times MDL$ for WI (for appropriate qualification)? YES NO
- (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
- (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
- (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
- (b) Filtration Blank absolute value $< PQL$ or $< 2.2 \times MDL$ for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
- Comments: _____
16. CCBs individually < 0.50 ng/L or $2.2 \times MDL$ for WI? PASS FAIL
- Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7J10017
Reviewer: 0	Dataset ID(s): THg26002-171009-1
Date: 10/10/2017	WO (s) #: 0
Batch #(s): F710226, F710227	0

Analyst Initials BC Reviewer Initials DM

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs | | | |
| 36. Date of analyst IDOC/CDOC: _____ 1/11/2017 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 7/28/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 7/28/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1706933

August 18, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1706933

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August 18, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W17-N_17MN001_061917_NSS_01_BL	1706933-01	Tissue	19-Jun-17 08:40	30-Jun-17 09:50
W17-N_17MN008_061917_NSS_02_BL	1706933-02	Tissue	19-Jun-17 12:00	30-Jun-17 09:50
W17-N_17MN007_062017_NSS_03_BL	1706933-03	Tissue	20-Jun-17 11:30	30-Jun-17 09:50
W17-N_17MN001_062017_NSS_04_BL	1706933-04	Tissue	20-Jun-17 12:15	30-Jun-17 09:50
W17-N_17MN002_062017_NSS_05_BL	1706933-05	Tissue	20-Jun-17 12:25	30-Jun-17 09:50
W17-N_17MN007_062017_NSS_06_BL	1706933-06	Tissue	20-Jun-17 12:35	30-Jun-17 09:50
W17-N_17MN010_062017_NSS_07_BL	1706933-07	Tissue	20-Jun-17 14:40	30-Jun-17 09:50
W17-N_17MN037_062517_NSS_08_BL	1706933-08	Tissue	25-Jun-17 07:40	30-Jun-17 09:50
W17-N_17MN037_062517_NSS_09_BL	1706933-09	Tissue	25-Jun-17 07:45	30-Jun-17 09:50
W17-N_17MN041_062517_NSS_10_BL	1706933-10	Tissue	25-Jun-17 08:50	30-Jun-17 09:50
W17-N_17MN058_062617_NSS_11_BL	1706933-11	Tissue	26-Jun-17 06:40	30-Jun-17 09:50
W17-N_17MN063_062917_NSS_12_BL	1706933-12	Tissue	29-Jun-17 06:50	30-Jun-17 09:50

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King**Reported:**
18-Aug-17 17:13

REVISED REPORT (8/18/17)

Report was revised per client request. The original report mistakenly had the batch that sample 1706933-06 was prepped in as F707327. It was actually prepped in batch F707328. This has been corrected in the narrative. The original report is also missing the results for F707328-Dup1. This is included in the revised report.

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 6/30/2017 9:50:00 AM . The samples were received intact, on-ice within a sealed cooler at -33.8 degrees Celsius.

The sample ID for 1706933-03 was corrected by the client as the chain of custody was incorrect.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per work instructions EFSR-P-SP-WI11642 (eff date 11/23/16) prior to digestion.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches; F707327 and F707328. They were analyzed in sequence 7G14006. Per client request, sample 1706933-06 was used as the source QC for the Matrix Spike (MS) and Matrix Spike Duplicate (MSD) in batch F707328.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike

Eurofins Frontier Global Sciences, Inc.



The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

EFGS Work Order: 1706933

Client: AMEZ Foster Wheeler

Date & Time Received: 6/30/17 9:50

Date Labeled: 7/5/17 Labeled By: AF

Project: _____

Received By: LM

Label Verified By: LM

of Coolers Received: 1 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required Y/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>Y</u>	

TID: <u>43180</u>	CF: <u>70.2</u> °C	Date/time: <u>6/30/17 9:50</u>	By: <u>LM</u>
Cooler 1: <u>-34</u> °C	w/ CF: <u>-32.8</u> °C	Cooler 4: _____ °C	w/ CF: _____ °C
Cooler 2: _____ °C	w/ CF: _____ °C	Cooler 5: _____ °C	w/ CF: _____ °C
Cooler 3: _____ °C	w/ CF: _____ °C	Cooler 6: _____ °C	w/ CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>N</u>	
Preservation type:	<u>MA</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>N</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>Y</u>	

Anomalies/Non-conformances (attach additional pages if needed):

1706933

Environmental Analysis Request/Chain of Custody

Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101				Matrix				Analyses Requested				For Lab Use Only																
Project Name/#: USDC Penobscot		PN #: 3615-66052.04A.054		<table border="1"> <tr> <td rowspan="2">Soil</td> <td rowspan="2">Sediment</td> <td rowspan="2">Potable Water</td> <td rowspan="2">Ground Water</td> <td rowspan="2">Surface Water</td> <td rowspan="2">Blood</td> <td rowspan="2">Total # of Containers</td> <td rowspan="2">-10 to -80 °C Cap tubes (only) frozen</td> <td rowspan="2"></td> <td rowspan="2"></td> <td rowspan="2"></td> <td rowspan="2"></td> <td rowspan="2"></td> <td>SF #</td> </tr> <tr> <td>SCR #</td> </tr> </table>				Soil	Sediment	Potable Water	Ground Water	Surface Water	Blood	Total # of Containers	-10 to -80 °C Cap tubes (only) frozen						SF #	SCR #	Preservation Codes				SF #	
Soil	Sediment	Potable Water	Ground Water																		Surface Water	Blood	Total # of Containers	-10 to -80 °C Cap tubes (only) frozen				
				SCR #																								
Project Manager: Roc Pendleton		P.O. #										SCR #																
Sampler: KB/GM		PWSID #										Preservation Codes																
Phone #		Quota #										H = HCl T = Tritable N = NO ₃ B = BaCl S = P, SO ₄ P = H ₂ O ₂ O = Other																
State where samples were collected: ME		For Compliance: Yes No																										
		Collection																										
Sample Identification		Date	Time	Grab	Composite								Remarks															
1 W17-N_17MN001_061917_NSS_01_BL		6/19/2017	0840	Grab			X	1	2																			
2 W17-N_17MN008_051917_NSS_02_BL		6/19/2017	1200	Grab			X	1	2					Less than 1 cap tube														
3 W17-N_17MN007_052017_NSS_03_BL		6/20/2017	1130	Grab			X	1	2					partials = 1 full cap tube														
4 W17-N_17MN001_052017_NSS_04_BL		6/20/2017	1215	Grab			X	1	2																			
5 W17-N_17MN002_062017_NSS_05_BL		6/20/2017	1225	Grab			X	1	2																			
6 W17-N_17MN007_062017_NSS_05_BL		6/20/2017	1235	Grab			X	1	2					MS/ MD														
7 W17-N_17MN010_062017_NSS_07_BL		6/20/2017	1440	Grab			X	1	2																			
8 W17-N_17MN037_062517_NSS_08_BL		6/25/2017	0740	Grab			X	1	2																			
9 W17-N_17MN037_062517_NSS_09_BL		6/25/2017	0745	Grab			X	1	2																			
10 W17-N_17MN041_062517_NSS_10_BL		6/25/2017	0850	Grab			X	1	2																			
11 W17-N_17MN058_062617_NSS_11_BL		6/26/2017	0840	Grab			X	1	2																			
12 W17-N_17MN063_062617_NSS_12_BL		6/26/2017	0850	Grab			X	1	2					1.5 full cap tube														
13 W17-N_17MN007_062017_NSS_06_BL_MS		6/20/2017	1235	Grab			X	1	3					Use extra volume from sample 06														
14 W17-N_17MN007_062017_NSS_06_BL_MD		6/20/2017	1235	Grab			X	1	3					Use extra volume from sample 06														
Turnaround Time Requested (TAT) (please check):				Standard				Rush				Relinquished by: <i>[Signature]</i>																
(Rush TAT is subject to laboratory approval and surcharges.)												Date: 6/20/17		Time: 1600														
Notes:				FedEx # 81092664 2029								Date: 6/30/17		Time: 9:50														
				# of Coolers: 1								Date:		Time:														
				Sample disposal - Hand Equipment Banks 1-4 until 30 days after delivery of report.								Date:		Time:														
				Report and EDD to: denise.king@amecfw.com / 978-682-8533								Date:		Time:														
Data Package Options (please check if required)				High				Standard				Relinquished by Commercial Carrier																
EDD Required?				Yes				No				if yes, format:																
												UPS		FedEx <input checked="" type="checkbox"/>														
												Other:		Temperature upon receipt: -32.8 °C														

Seal intact



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

W17-N_17MN001_061917_NSS_01_BL
1706933-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	1820	9.41	84.0	ng/g	400	F707327	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	
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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

W17-N_17MN008_061917_NSS_02_BL
1706933-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	1690	11.9	106	ng/g	100	F707327	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

W17-N_17MN007_062017_NSS_03_BL
1706933-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2630	3.89	34.7	ng/g	100	F707327	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

W17-N_17MN001_062017_NSS_04_BL
1706933-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	3630	6.68	59.6	ng/g	400	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

**W17-N_17MN002_062017_NSS_05_BL
1706933-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	1410	5.05	45.0	ng/g	400	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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AMEC Foster Wheeler
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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

W17-N_17MN007_062017_NSS_06_BL
1706933-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2020	7.26	64.8	ng/g	400	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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AMEC Foster Wheeler
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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

W17-N_17MN010_062017_NSS_07_BL
1706933-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2360	6.28	56.1	ng/g	400	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

**W17-N_17MN037_062517_NSS_08_BL
1706933-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	3300	16.4	146	ng/g	400	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

W17-N_17MN037_062517_NSS_09_BL
1706933-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2350	11.9	107	ng/g	400	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

W17-N_17MN041_062517_NSS_10_BL
1706933-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	3060	5.44	48.6	ng/g	400	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

**W17-N_17MN058_062617_NSS_11_BL
1706933-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2570	5.80	51.8	ng/g	400	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	



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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

**W17-N_17MN063_062917_NSS_12_BL
1706933-12**

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	6010	14.8	132	ng/g	1000	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7G14006 - F707327

Cal Standard (7G14006-CAL1)					Prepared & Analyzed: 13-Jul-17						
Mercury	0.563	-		ng/L	0.50100		112				
Cal Standard (7G14006-CAL2)					Prepared & Analyzed: 13-Jul-17						
Mercury	1.054	-		ng/L	1.0020		105				
Cal Standard (7G14006-CAL3)					Prepared & Analyzed: 13-Jul-17						
Mercury	4.787	-		ng/L	5.0100		95.5				
Cal Standard (7G14006-CAL4)					Prepared & Analyzed: 13-Jul-17						
Mercury	18.52	-		ng/L	20.040		92.4				
Cal Standard (7G14006-CAL5)					Prepared & Analyzed: 13-Jul-17						
Mercury	37.49	-		ng/L	40.080		93.5				
Calibration Blank (7G14006-CCB1)					Prepared & Analyzed: 13-Jul-17						
Mercury	0.006	-		ng/L							
Calibration Blank (7G14006-CCB2)					Prepared & Analyzed: 13-Jul-17						
Mercury	0.012	-		ng/L							
Calibration Blank (7G14006-CCB3)					Prepared & Analyzed: 13-Jul-17						
Mercury	0.031	-		ng/L							
Calibration Blank (7G14006-CCB4)					Prepared & Analyzed: 13-Jul-17						
Mercury	0.025	-		ng/L							
Calibration Blank (7G14006-CCB5)					Prepared & Analyzed: 13-Jul-17						
Mercury	0.084	-		ng/L							

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7G14006 - F707327

Calibration Blank (7G14006-CCB6)				Prepared & Analyzed: 13-Jul-17							
Mercury	0.076	-		ng/L							
Calibration Blank (7G14006-CCB7)				Prepared & Analyzed: 13-Jul-17							
Mercury	0.080	-		ng/L							
Calibration Blank (7G14006-CCB8)				Prepared & Analyzed: 13-Jul-17							
Mercury	0.066	-		ng/L							
Calibration Blank (7G14006-CCB9)				Prepared & Analyzed: 13-Jul-17							
Mercury	0.049	-		ng/L							
Calibration Blank (7G14006-CCBA)				Prepared & Analyzed: 13-Jul-17							
Mercury	0.071	-		ng/L							
Calibration Check (7G14006-CCV1)				Prepared & Analyzed: 13-Jul-17							
Mercury	4.815	-		ng/L	5.0000		96.3	77-123			
Calibration Check (7G14006-CCV2)				Prepared & Analyzed: 13-Jul-17							
Mercury	4.822	-		ng/L	5.0000		96.4	77-123			
Calibration Check (7G14006-CCV3)				Prepared & Analyzed: 13-Jul-17							
Mercury	4.819	-		ng/L	5.0000		96.4	77-123			
Calibration Check (7G14006-CCV4)				Prepared & Analyzed: 13-Jul-17							
Mercury	4.734	-		ng/L	5.0000		94.7	77-123			
Calibration Check (7G14006-CCV5)				Prepared & Analyzed: 13-Jul-17							
Mercury	4.863	-		ng/L	5.0000		97.3	77-123			

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7G14006 - F707327

Calibration Check (7G14006-CCV6)					Prepared & Analyzed: 13-Jul-17						
Mercury	4.971	-		ng/L	5.0000		99.4	77-123			
Calibration Check (7G14006-CCV7)					Prepared & Analyzed: 13-Jul-17						
Mercury	4.950	-		ng/L	5.0000		99.0	77-123			
Calibration Check (7G14006-CCV8)					Prepared & Analyzed: 13-Jul-17						
Mercury	4.907	-		ng/L	5.0000		98.1	77-123			
Calibration Check (7G14006-CCV9)					Prepared & Analyzed: 13-Jul-17						
Mercury	4.918	-		ng/L	5.0000		98.4	77-123			
Calibration Check (7G14006-CCVA)					Prepared & Analyzed: 13-Jul-17						
Mercury	4.905	-		ng/L	5.0000		98.1	77-123			
Instrument Blank (7G14006-IBL1)					Prepared & Analyzed: 13-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7G14006-IBL2)					Prepared & Analyzed: 13-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7G14006-IBL3)					Prepared & Analyzed: 13-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7G14006-ICV1)					Prepared & Analyzed: 13-Jul-17						
Mercury	4.939	-		ng/L	5.0000		98.8	79-121			

Batch F707327 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F707327-BLK1)					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	0.102	0.090	0.800	ng/g							J

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F707327 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F707327-BLK2)					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.090	0.800	ng/g							U
Blank (F707327-BLK3)					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	0.160	0.090	0.800	ng/g							J
LCS (F707327-BS1)					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	7.484	0.090	0.800	ng/g	8.0160		93.4	75-125			
LCS Dup (F707327-BSD1)					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	7.455	0.090	0.800	ng/g	8.0160		93.0	75-125	0.396	24	
Duplicate (F707327-DUP1)					Source: 1706931-04RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	18.29	0.087	0.779	ng/g		11.59			44.8	24	QR-07
Duplicate (F707327-DUP2)					Source: 1706931-04RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	11.43	0.087	0.776	ng/g		11.59			1.42	24	AD
Matrix Spike (F707327-MS1)					Source: 1706932-04 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	354.3	1.78	15.9	ng/g	398.41	25.01	82.6	71-125			
Matrix Spike (F707327-MS2)					Source: 1706932-05 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	330.2	1.72	15.4	ng/g	384.79	2.621	85.1	71-125			
Matrix Spike Dup (F707327-MSD1)					Source: 1706932-04 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	359.0	1.77	15.8	ng/g	395.89	25.01	84.4	71-125	2.08	24	
Matrix Spike Dup (F707327-MSD2)					Source: 1706932-05 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	302.1	1.67	14.9	ng/g	373.32	2.621	80.2	71-125	5.94	24	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F707328 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F707328-BLK1)					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	0.111	0.090	0.800	ng/g							J
Blank (F707328-BLK2)					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.090	0.800	ng/g							U
Blank (F707328-BLK3)					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.090	0.800	ng/g							U
LCS (F707328-BS1)					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	7.456	0.090	0.800	ng/g	8.0160		93.0	75-125			
LCS Dup (F707328-BSD1)					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	7.378	0.090	0.800	ng/g	8.0160		92.0	75-125	1.05	24	
Duplicate (F707328-DUP1)					Source: 1706933-05RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	1505	27.0	241	ng/g		1413			6.32	24	
Duplicate (F707328-DUP2)					Source: 1706933-05RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	1435	5.05	45.0	ng/g		1413			1.60	24	AD
Matrix Spike (F707328-MS1)					Source: 1706933-06RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	3456	7.80	69.7	ng/g	1745.6	2019	82.3	71-125			
Matrix Spike (F707328-MS2)					Source: 1706934-01 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	1633	7.08	63.2	ng/g	1582.9	164.7	92.8	71-125			
Matrix Spike (F707328-MS3)					Source: 1706933-06RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	8036	18.2	162	ng/g	6495.9	2019	92.6	71-125			AS

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
18-Aug-17 17:13

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F707328 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F707328-MSD1)		Source: 1706933-06RE1		Prepared: 11-Jul-17 Analyzed: 13-Jul-17							
Mercury	3193	6.88	61.4	ng/g	1539.2	2019	76.2	71-125	7.70	24	
Matrix Spike Dup (F707328-MSD2)		Source: 1706934-01		Prepared: 11-Jul-17 Analyzed: 13-Jul-17							
Mercury	1124	4.61	41.2	ng/g	1031.9	164.7	93.0	71-125	0.187	24	
Matrix Spike Dup (F707328-MSD3)		Source: 1706933-06RE1		Prepared: 11-Jul-17 Analyzed: 13-Jul-17							
Mercury	8030	18.2	162	ng/g	6495.9	2019	92.5	71-125	0.107	24	AS

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Amy Goodall, Project Manager

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King**Reported:**
18-Aug-17 17:13**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- J The result is an estimated concentration.
- E-01 Sample was preceded by a sample exceeding the calibration curve and was reanalyzed for confirmation.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- AS This MS and/or MSD is an analytical spike and/or an analytical spike duplicate.
- AD This matrix duplicate is an analytical duplicate.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Analysis Datasheet for Total Mercury

Date of Analysis: July 13, 2017
 Instrument #: Hg2600-3
 ITMS Sequence #: 7G14006, 7G14007

Analyst: DM2
 Units: ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	57.40 units	114.79	55.84 units	111.69	112.5 %Rec
SEQ-CAL2	1	1.00 ng/L	106.23 units	106.23	104.68 units	104.68	105.4 %Rec
SEQ-CAL3	1	5.00 ng/L	476.73 units	95.35	475.17 units	95.03	95.7 %Rec
SEQ-CAL4	1	20.00 ng/L	1839.98 units	92.00	1838.43 units	91.92	92.6 %Rec
SEQ-CAL5	1	40.00 ng/L	3722.97 units	93.07	3721.41 units	93.04	93.7 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF: 99.27
 Corr. St Dev RF: +/- 8.58
 Corr. RSD CF: 8.6% RSD
 Uncorr. Mean RF: 100.29

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	1.55 units	±1.47	0.02 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.233 ng/L	±0.786
BLK	2	3	1.014 ng/L	±0.362
BLK	3	9	0.024 ng/L	±0.021
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER-REVIEWED
 INITIALS: BC 7/14/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber							Correction?	RESP					
Hg2600-3	DM2	CAL	SEQ-IBL1	1	7/13/2017 7:19:31	70920-1.RAW	7:19:31 AM	0.00				-1.6	-0.016	-0.016	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	7/13/2017 7:23:39	70921-1.RAW	7:23:39 AM	1.74				0.2	0.002	0.002	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	7/13/2017 7:27:46	70922-1.RAW	7:27:46 AM	2.92				1.4	0.014	0.014	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	7/13/2017 7:31:56	70923-1.RAW	7:31:56 AM	57.40				55.9	0.563	0.563	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	7/13/2017 7:36:04	70924-1.RAW	7:36:04 AM	105.23				104.7	1.054	1.054	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	7/13/2017 7:40:13	70925-1.RAW	7:40:13 AM	476.73				475.2	4.787	4.787	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	7/13/2017 7:44:27	70926-1.RAW	7:44:27 AM	1839.98				1838.4	18.519	18.519	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	7/13/2017 7:48:30	70927-1.RAW	7:48:30 AM	3722.97				3721.4	37.487	37.487	ng/L	
Hg2600-3	DM2	BLK	F707327-BLK1	20	7/13/2017 7:56:46	70929-1.RAW	7:56:46 AM	491.90				490.4	4.939	4.939	ng/L	
Hg2600-3	DM2	BLK	F707327-BLK2	20	7/13/2017 7:58:46	70929-1.RAW	7:58:46 AM	7.05	1			6.3	0.063	1.269	ng/L	
Hg2600-3	DM2	BLK	F707327-BLK3	20	7/13/2017 8:00:55	70930-1.RAW	8:00:55 AM	3.69	1			2.1	0.022	0.430	ng/L	
Hg2600-3	DM2	SAM	F707327-BS1	20	7/13/2017 8:00:03	70931-1.RAW	8:00:03 AM	11.40	1			9.9	0.100	2.001	ng/L	
Hg2600-3	DM2	SAM	F707327-BS2	20	7/13/2017 8:09:12	70932-1.RAW	8:09:12 AM	472.05	1			470.5	4.676	93.552	ng/L	
Hg2600-3	DM2	SAM	1706930-04	100	7/13/2017 8:13:20	70933-1.RAW	8:13:20 AM	470.19	1			468.5	4.659	93.182	ng/L	
Hg2600-3	DM2	SAM	1706930-05	100	7/13/2017 8:17:29	70934-1.RAW	8:17:29 AM	89.96	1			38.4	0.375	37.458	ng/L	
Hg2600-3	DM2	SAM	1706930-07	100	7/13/2017 8:21:37	70935-1.RAW	8:21:37 AM	250.26	1			298.7	2.896	289.591	ng/L	
Hg2600-3	DM2	SAM	1706931-03	100	7/13/2017 8:25:45	70936-1.RAW	8:25:45 AM	6971.14	1			6669.6	67.173	6717.274	ng/L	
Hg2600-3	DM2	SAM	1706931-04	100	7/13/2017 8:29:54	70937-1.RAW	8:29:54 AM	521.29	1			519.7	5.223	522.313	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	7/13/2017 8:34:02	70938-1.RAW	8:34:02 AM	189.92	1			168.4	1.684	168.369	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	7/13/2017 8:38:11	70939-1.RAW	8:38:11 AM	479.55				478.0	4.815	4.815	ng/L	
Hg2600-3	DM2	SAM	1706931-06	400	7/13/2017 8:42:19	70940-1.RAW	8:42:19 AM	2.15				0.5	0.006	0.006	ng/L	
Hg2600-3	DM2	SAM	1706931-07	400	7/13/2017 8:46:28	70941-1.RAW	8:46:28 AM	1283.01	1			1281.5	12.906	5162.205	ng/L	
Hg2600-3	DM2	SAM	1706931-08	400	7/13/2017 8:50:36	70942-1.RAW	8:50:36 AM	971.19	1			969.5	9.764	3905.768	ng/L	
Hg2600-3	DM2	SAM	1706932-01	20	7/13/2017 8:54:44	70943-1.RAW	8:54:44 AM	1035.97	1			1034.4	10.417	4160.799	ng/L	
Hg2600-3	DM2	SAM	1706932-02	20	7/13/2017 8:58:53	70944-1.RAW	8:58:53 AM	106.42	1			174.9	0.995	19.894	ng/L	
Hg2600-3	DM2	SAM	1706932-03	20	7/13/2017 9:03:01	70945-1.RAW	9:03:01 AM	747.39	1			746.4	7.457	149.148	ng/L	
Hg2600-3	DM2	SAM	1706932-04	20	7/13/2017 9:07:10	70946-1.RAW	9:07:10 AM	2436.08	1			2434.5	28.491	569.829	ng/L	
Hg2600-3	DM2	SAM	1706932-05	20	7/13/2017 9:11:18	70947-1.RAW	9:11:18 AM	1856.09	1			1854.5	18.620	372.394	ng/L	
Hg2600-3	DM2	SAM	1706932-08	400	7/13/2017 9:15:26	70948-1.RAW	9:15:26 AM	177.60	1			176.3	1.714	34.775	ng/L	
Hg2600-3	DM2	SAM	1706932-09	400	7/13/2017 9:19:35	70949-1.RAW	9:19:35 AM	130.50	1			137.9	1.386	554.595	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	7/13/2017 9:23:43	70950-1.RAW	9:23:43 AM	187.84	1			186.3	1.873	749.365	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	7/13/2017 9:27:52	70951-1.RAW	9:27:52 AM	480.28				478.7	4.822	4.822	ng/L	
Hg2600-3	DM2	SAM	1706933-10	100	7/13/2017 9:32:00	70952-1.RAW	9:32:00 AM	2.76				1.2	0.012	0.012	ng/L	
Hg2600-3	DM2	SAM	1706933-01	100	7/13/2017 9:43:41	70953-1.RAW	9:43:41 AM	701.78	1			700.2	7.041	704.125	ng/L	
Hg2600-3	DM2	SAM	1706933-02	100	7/13/2017 9:47:49	70954-1.RAW	9:47:49 AM	4312.33	1			4310.8	43.612	4341.163	ng/L	
Hg2600-3	DM2	SAM	1706933-03	100	7/13/2017 9:51:57	70955-1.RAW	9:51:57 AM	830.71	1			829.2	8.340	834.010	ng/L	
Hg2600-3	DM2	SAM	1706933-04	20	7/13/2017 9:56:06	70956-1.RAW	9:56:06 AM	3737.77	1			3766.2	37.926	3792.612	ng/L	
Hg2600-3	DM2	SAM	1706933-07	400	7/13/2017 10:00:14	70957-1.RAW	10:00:14 AM	210.33	1			208.8	2.041	40.828	ng/L	
Hg2600-3	DM2	SAM	1706933-03	100	7/13/2017 10:04:23	70958-1.RAW	10:04:23 AM	1704.29	1			1702.7	17.149	6859.653	ng/L	
Hg2600-3	DM2	SAM	1706933-04	20	7/13/2017 10:08:31	70959-1.RAW	10:08:31 AM	512.62	1			511.4	5.139	513.882	ng/L	
Hg2600-3	DM2	SAM	F707327-DUP1	20	7/13/2017 10:12:40	70960-1.RAW	10:12:40 AM	743.93	1			747.4	7.467	149.339	ng/L	
Hg2600-3	DM2	SAM	F707327-MS1	400	7/13/2017 10:16:48	70961-1.RAW	10:16:48 AM	172.14	1			1170.6	11.730	234.601	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	7/13/2017 10:20:58	70962-1.RAW	10:20:58 AM	1107.45	1			1105.9	11.137	4454.784	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	7/13/2017 10:25:05	70963-1.RAW	10:25:05 AM	479.95				478.4	4.819	4.819	ng/L	
Hg2600-3	DM2	SAM	F707327-MSD1	400	7/13/2017 10:29:13	70964-1.RAW	10:29:13 AM	4.60				3.0	0.031	0.031	ng/L	
Hg2600-3	DM2	SAM	F707327-MS2	400	7/13/2017 10:33:22	70965-1.RAW	10:33:22 AM	1129.52	1			1128.0	11.359	4543.725	ng/L	
Hg2600-3	DM2	SAM	F707327-MSD2	400	7/13/2017 10:37:30	70966-1.RAW	10:37:30 AM	1058.92	1			1067.4	10.749	4299.532	ng/L	
Hg2600-3	DM2	SAM	1706933-01	400	7/13/2017 10:41:38	70967-1.RAW	10:41:38 AM	1008.09	1			1006.5	10.136	4054.460	ng/L	
Hg2600-3	DM2	SAM	1706933-02	400	7/13/2017 10:45:47	70968-1.RAW	10:45:47 AM	1077.44	1			1075.9	10.835	4333.889	ng/L	
Hg2600-3	DM2	BLK	F707328-BLK1	20	7/13/2017 10:49:55	70969-1.RAW	10:49:55 AM	781.78	1			790.2	7.948	794.793	ng/L	
Hg2600-3	DM2	BLK	F707328-BLK2	20	7/13/2017 10:54:04	70970-1.RAW	10:54:04 AM	8.45	2			6.9	0.070	1.390	ng/L	
Hg2600-3	DM2	BLK	F707328-BLK3	20	7/13/2017 10:58:12	70971-1.RAW	10:58:12 AM	6.43	2			4.9	0.049	0.983	ng/L	
Hg2600-3	DM2	SAM	F707328-BS1	20	7/13/2017 11:02:21	70972-1.RAW	11:02:21 AM	4.87	2			3.3	0.033	0.658	ng/L	
Hg2600-3	DM2	SAM	F707328-BS2	20	7/13/2017 11:06:29	70973-1.RAW	11:06:29 AM	189.21	2			167.7	4.660	93.204	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	7/13/2017 11:10:37	70974-1.RAW	11:10:37 AM	454.35	2			462.8	4.611	92.227	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	7/13/2017 11:14:46	70975-1.RAW	11:14:46 AM	471.51	2			470.0	4.734	4.734	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	7/13/2017 11:18:54	70976-1.RAW	11:18:54 AM	4.03				2.5	0.025	0.025	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hg2600-3	DM2	SAM	F707327 DUJ2	20	7/13/2017 11:23:03	70977-1.RAW	11:23:03 AM	738.49	1			736.9	7.362	147.233	ng/L
Hg2600-3	DM2	SAM	1706933-04	100	7/13/2017 11:27:11	70978-1.RAW	11:27:11 AM	11620.23	2			12619.7	117.029	11702.933	ng/L
Hg2600-3	DM2	SAM	1706933-05	100	7/13/2017 11:31:19	70979-1.RAW	11:31:19 AM	6194.72	2			6153.2	61.973	6197.288	ng/L
Hg2600-3	DM2	SAM	1706933-06	100	7/13/2017 11:35:28	70980-1.RAW	11:35:28 AM	6102.11	2			6100.6	61.443	6144.288	ng/L
Hg2600-3	DM2	SAM	1706933-07	100	7/13/2017 11:39:36	70981-1.RAW	11:39:36 AM	8410.23	2			8408.7	84.593	8469.340	ng/L
Hg2600-3	DM2	SAM	1706933-08	100	7/13/2017 11:43:45	70982-1.RAW	11:43:45 AM	4569.90	2			4598.3	46.311	4631.058	ng/L
Hg2600-3	DM2	SAM	1706933-09	100	7/13/2017 11:47:53	70983-1.RAW	11:47:53 AM	3953.56	2			3952.0	39.800	3980.010	ng/L
Hg2600-3	DM2	SAM	1706933-10	100	7/13/2017 11:52:02	70984-1.RAW	11:52:02 AM	12156.19	2			12154.5	122.428	12242.772	ng/L
Hg2600-3	DM2	SAM	1706933-11	100	7/13/2017 11:56:10	70985-1.RAW	11:56:10 AM	9498.92	2			9498.4	95.670	9567.018	ng/L
Hg2600-3	DM2	SAM	clean		7/13/2017 11:59:01	70988-1.RAW	11:59:01 AM	11.12	X			9.6	0.096	0.000	ng/L
Hg2600-3	DM2	SAM	ws		7/13/2017 12:03:10	70987-1.RAW	12:03:10 PM	2156274219	X			20.0	0.202	0.000	ng/L
Hg2600-3	DM2	SAM	1706933-12	100	7/13/2017 12:07:18	70988-1.RAW	12:07:18 PM	21279.50	2			21277.0	214.330	21432.998	ng/L
Hg2600-3	DM2	SAM	clean		7/13/2017 12:10:10	70989-1.RAW	12:10:10 PM	17.01	X			15.5	0.156	0.000	ng/L
Hg2600-3	DM2	SAM	ws		7/13/2017 12:14:18	70990-1.RAW	12:14:18 PM	28.78	X			27.2	0.274	0.000	ng/L
Hg2600-3	DM2	SAM	ws		7/13/2017 12:18:26	70991-1.RAW	12:18:26 PM	11.39	X			9.8	0.099	0.000	ng/L
Hg2600-3	DM2	CAL	SEQ-CCV5	1	7/13/2017 12:22:35	70992-1.RAW	12:22:35 PM	484.20	X			482.7	4.863	4.863	ng/L
Hg2600-3	DM2	SAM	1706934-01	400	7/13/2017 12:26:43	70993-1.RAW	12:26:43 PM	9.94				8.4	0.084	0.034	ng/L
Hg2600-3	DM2	SAM	1706935-02	400	7/13/2017 12:30:52	70994-1.RAW	12:30:52 PM	136.68	2			135.1	1.359	543.411	ng/L
Hg2600-3	DM2	SAM	1706933-04RE1	400	7/13/2017 12:35:03	70995-1.RAW	12:35:00 PM	4525.60	2			4524.0	45.570	18227.892	ng/L
Hg2600-3	DM2	SAM	1706933-05RE1	400	7/13/2017 12:39:08	70996-1.RAW	12:39:08 PM	2918.73	2			2916.7	29.378	11751.275	ng/L
Hg2600-3	DM2	SAM	1706933-06RE1	400	7/13/2017 12:43:17	70997-1.RAW	12:43:17 PM	1558.48	2			1556.9	15.681	6272.376	ng/L
Hg2600-3	DM2	SAM	1706933-07RE1	400	7/13/2017 12:47:25	70998-1.RAW	12:47:25 PM	1547.71	2			1546.2	15.572	6228.951	ng/L
Hg2600-3	DM2	SAM	1706933-08RE1	400	7/13/2017 12:51:34	70999-1.RAW	12:51:34 PM	2093.24	2			2091.7	21.068	8427.110	ng/L
Hg2600-3	DM2	SAM	1706933-09RE1	400	7/13/2017 12:55:42	71000-1.RAW	12:55:42 PM	1124.58	2			1123.0	11.310	4524.040	ng/L
Hg2600-3	DM2	SAM	1706933-10RE1	400	7/13/2017 12:59:51	71001-1.RAW	12:59:51 PM	1093.64	2			1092.1	10.998	4399.360	ng/L
Hg2600-3	DM2	SAM	1706933-11RE1	400	7/13/2017 1:03:59	71002-1.RAW	1:03:59 PM	3122.98	2			3121.4	31.441	12576.284	ng/L
Hg2600-3	DM2	CAL	SEQ-CCV6	1	7/13/2017 1:08:07	71003-1.RAW	1:08:07 PM	2463.14	2			2461.6	24.794	9917.567	ng/L
Hg2600-3	DM2	CAL	SEQ-CCB6	1	7/13/2017 1:12:15	71004-1.RAW	1:12:16 PM	495.05				493.5	4.971	4.971	ng/L
Hg2600-3	DM2	SAM	1706933-12RE1	1000	7/13/2017 1:16:24	71005-1.RAW	1:16:24 PM	9.05				7.5	0.076	0.075	ng/L
Hg2600-3	DM2	SAM	1706935-02RE1	1000	7/13/2017 1:20:33	71006-1.RAW	1:20:33 PM	2259.21	2			2257.7	22.741	22741.129	ng/L
Hg2600-3	DM2	SAM	1706933-04RE2	400	7/13/2017 1:24:41	71007-1.RAW	1:24:41 PM	1890.71	2			1889.2	19.029	15029.144	ng/L
Hg2600-3	DM2	SAM	1706934-02	400	7/13/2017 1:28:49	71008-1.RAW	1:28:49 PM	3026.77	2			3025.2	30.472	12188.618	ng/L
Hg2600-3	DM2	SAM	1706934-03	400	7/13/2017 1:32:58	71009-1.RAW	1:32:58 PM	5988.68	2			5987.1	60.308	24123.132	ng/L
Hg2600-3	DM2	SAM	1706934-04	400	7/13/2017 1:37:06	71010-1.RAW	1:37:06 PM	1691.15	2			1689.6	17.017	6805.944	ng/L
Hg2600-3	DM2	SAM	1706934-05	400	7/13/2017 1:41:15	71011-1.RAW	1:41:15 PM	872.65	2			871.1	8.772	3508.924	ng/L
Hg2600-3	DM2	SAM	1706935-03	1000	7/13/2017 1:45:23	71012-1.RAW	1:45:23 PM	2685.16	2			2683.6	27.030	10812.155	ng/L
Hg2600-3	DM2	SAM	1706935-04	1000	7/13/2017 1:49:32	71013-1.RAW	1:49:32 PM	1759.68	2			1758.1	17.709	17709.192	ng/L
Hg2600-3	DM2	SAM	1706935-05	1000	7/13/2017 1:53:40	71014-1.RAW	1:53:40 PM	716.57	2			715.0	7.202	7201.630	ng/L
Hg2600-3	DM2	CAL	SEQ-CCV7	1	7/13/2017 1:57:48	71015-1.RAW	1:57:48 PM	1710.37	2			1708.8	17.212	17212.461	ng/L
Hg2600-3	DM2	CAL	SEQ-CCB7	1	7/13/2017 2:01:57	71016-1.RAW	2:01:57 PM	492.99				491.4	4.950	4.950	ng/L
Hg2600-3	DM2	SAM	1706935-06	1000	7/13/2017 2:06:05	71017-1.RAW	2:06:05 PM	9.48				7.9	0.080	0.080	ng/L
Hg2600-3	DM2	SAM	1706935-07	1000	7/13/2017 2:10:14	71018-1.RAW	2:10:14 PM	186.77	2			185.2	1.865	1854.734	ng/L
Hg2600-3	DM2	SAM	1706934-02RE1	1000	7/13/2017 2:14:22	71019-1.RAW	2:14:22 PM	605.30	2			603.8	6.081	6080.771	ng/L
Hg2600-3	DM2	SAM	1706934-03RE1	400	7/13/2017 2:18:30	71020-1.RAW	2:18:30 PM	2387.39	2			2385.8	24.032	24032.394	ng/L
Hg2600-3	DM2	SAM	F707328-DUJ1	400	7/13/2017 2:22:39	71021-1.RAW	2:22:39 PM	1649.88	2			1648.3	16.602	6640.638	ng/L
Hg2600-3	DM2	SAM	F707328-MS1	400	7/13/2017 2:26:47	71022-1.RAW	2:26:47 PM	311.81	2			310.3	3.173	1249.112	ng/L
Hg2600-3	DM2	SAM	F707328-MSD1	400	7/13/2017 2:30:56	71023-1.RAW	2:30:56 PM	2463.75	2			2462.2	24.800	9970.017	ng/L
Hg2600-3	DM2	SAM	F707328-MS2	400	7/13/2017 2:35:04	71024-1.RAW	2:35:04 PM	2580.80	2			2579.3	25.979	10391.661	ng/L
Hg2600-3	DM2	SAM	F707328-MSD2	400	7/13/2017 2:39:13	71025-1.RAW	2:39:13 PM	1784.80	2			1783.2	18.224	5169.611	ng/L
Hg2600-3	DM2	SAM	F707328-DUJ2	400	7/13/2017 2:43:22	71026-1.RAW	2:43:22 PM	1356.02	2			1354.5	13.542	5456.606	ng/L
Hg2600-3	DM2	CAL	SEQ-CCV8	1	7/13/2017 2:47:30	71027-1.RAW	2:47:30 PM	1583.57	2			1582.0	15.934	6373.463	ng/L
Hg2600-3	DM2	CAL	SEQ-CCB8	1	7/13/2017 2:51:39	71028-1.RAW	2:51:39 PM	488.70				487.1	4.907	4.907	ng/L
Hg2600-3	DM2	BLK	F70732-BLK1	1	7/13/2017 2:55:47	71029-1.RAW	2:55:47 PM	8.13				6.6	0.066	0.066	ng/L
Hg2600-3	DM2	BLK	F70732-BLK2	1	7/13/2017 2:59:56	71030-1.RAW	2:59:56 PM	2.79	3 X			1.2	0.012	0.012	ng/L
Hg2600-3	DM2	BLK	F70732-BLK3	1	7/13/2017 3:04:04	71031-1.RAW	3:04:04 PM	3.45	3 X			1.9	0.019	0.019	ng/L
Hg2600-3	DM2	BLK	F70732-BLK4	1	7/13/2017 3:08:13	71032-1.RAW	3:08:13 PM	4.30	3 X			2.7	0.028	0.028	ng/L
Hg2600-3	DM2	BLK	F70732-BLK5	1	7/13/2017 3:12:21	71033-1.RAW	3:12:21 PM	3.69	3 X			2.1	0.022	0.022	ng/L
Hg2600-3	DM2	BLK	F70732-BLK6	1	7/13/2017 3:16:30	71034-1.RAW	3:16:30 PM	7.45	3 X			5.9	0.059	0.059	ng/L
Hg2600-3	DM2	BLK	F70732-BLK7	1	7/13/2017 3:20:38	71035-1.RAW	3:20:38 PM	6.14	3 X			4.6	0.046	0.046	ng/L
Hg2600-3	DM2	BLK	F70732-BLK8	1	7/13/2017 3:24:46	71036-1.RAW	3:24:46 PM	3.37	3 X			1.8	0.018	0.018	ng/L
Hg2600-3	DM2	BLK	F70732-BLK9	1	7/13/2017 3:28:55	71037-1.RAW	3:28:55 PM	3.82	3 X			2.3	0.023	0.023	ng/L
Hg2600-3	DM2	SAM	F707322 BS1	1	7/13/2017 3:33:03	71038-1.RAW	3:33:03 PM	0.00	3 X			-1.6	-0.016	-0.016	ng/L
Hg2600-3	DM2	CAL	SEQ-CCV9	1	7/13/2017 3:37:12	71039-1.RAW	3:37:12 PM	1484.14	3 X			1482.6	14.935	14.935	ng/L
Hg2600-3	DM2	CAL	SEQ-CCB9	1	7/13/2017 3:41:20	71040-1.RAW	3:41:20 PM	489.72				488.2	4.918	4.918	ng/L
Hg2600-3	DM2	CAL	SEQ-CCB9	1	7/13/2017 3:45:29	71041-1.RAW	3:45:29 PM	6.45				4.9	0.049	0.049	ng/L

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	DM2	SAM	F707328-MS1	1000	7/13/2017 15:49:37	71042-1.RAW	3:49:37 PM	2462.84	2		2461.3	24.792	24792.340	ng/L	
Hg2600-3	DM2	SAM	F707328-MSD3	1000	7/13/2017 15:53:45	71043-1.RAW	3:53:45 PM	2460.86	2		2459.3	24.772	24772.415	ng/L	
Hg2600-3	DM2	SAM	F707372-3SD1	1	7/13/2017 15:57:54	71044-1.RAW	3:57:54 PM	1509.32	3 X		1507.8	15.188	15.188	ng/L	
Hg2600-3	DM2	SAM	1706489-06	10	7/13/2017 16:02:02	71045-1.RAW	4:02:02 PM	301.06	3 X		299.5	3.017	30.170	ng/L	
Hg2600-3	DM2	SAM	1707148-01	1	7/13/2017 16:06:11	71046-1.RAW	4:06:11 PM	39.37	3 X		37.8	0.381	0.381	ng/L	
Hg2600-3	DM2	SAM	1707148-02	1	7/13/2017 16:10:19	71047-1.RAW	4:10:19 PM	9.81	3 X		8.3	0.083	0.083	ng/L	
Hg2600-3	DM2	SAM	1707292-01	1	7/13/2017 16:14:28	71048-1.RAW	4:14:28 PM	216.13	3 X		214.6	2.161	2.161	ng/L	
Hg2600-3	DM2	SAM	1707292-02	1	7/13/2017 16:18:36	71049-1.RAW	4:18:36 PM	4.60	3 X		3.0	0.031	0.031	ng/L	
Hg2600-3	DM2	SAM	F707372-DUP1	1	7/13/2017 16:22:44	71050-1.RAW	4:22:44 PM	223.41	3 X		221.9	2.235	2.235	ng/L	
Hg2600-3	DM2	SAM	F707372-MS1	1	7/13/2017 16:26:53	71051-1.RAW	4:26:53 PM	1086.11	3 X		1084.6	10.925	10.925	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVA	1	7/13/2017 19:31:01	71052-1.RAW	4:31:01 PM	488.50			486.9	4.905	4.905	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	7/13/2017 18:36:10	71053-1.RAW	4:35:10 PM	8.64			7.1	0.071	0.071	ng/L	
Hg2600-3	DM2	SAM	F707372-MSD1	1	7/13/2017 18:39:18	71054-1.RAW	4:39:18 PM	1101.19	3	X	1099.6	11.077	11.077	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVB	1	7/13/2017 18:43:26	71055-1.RAW	4:43:26 PM	486.62			485.1	4.886	4.886	ng/L	
Hg2600-3	DM2	CAI	SEQ-CCBB	1	7/13/2017 18:47:35	71056-1.RAW	4:47:35 PM	6.95			5.4	0.054	0.054	ng/L	

Total Mercury LPA1631		Operat DM	Blank# 1.5524	Calib Eqn:	Conc = (Area-1.552	Run Date: 7/13/2017	Blank SD:	1.458961105							
		Workst THg2600	CalifBa 99.272	Status:	QC Warnings:5/QC F	Run Time: 9:39:32	Blank RSD%:	64.61778808							
		Method ### R:	1 R2:				CF SD:	8.577269355							
		Descrip THg26003-170713 /					CF RSD%:	8.640179002							
Sample/D	Location	Rinse	Dilute	Blank	Conc (ppb)	MR%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (off)	Flags	RunCount
Clean				0.00	1.83					70815-1.RAW	7:00:05	181.58	Clean	OK	1
Clean										70813-1.RAW	7:02:57	0.00	Clean	NP	1
ws										70817-1.RAW	7:07:05	0.00	Sample	NP	1
ws										70818-1.RAW	7:11:14	0.00	Sample	NP	1
ws										70819-1.RAW	7:15:22	0.00	Sample	NP	1
SEQ-JBL1	A1		1							70820-1.RAW	7:19:31	0.00	Sample	NP	1
SEQ-JBL2	A2		1	0.00	0.02					70821-1.RAW	7:23:39	1.74	Sample	OK	1
SEQ-JBL3	A3		1	0.00	0.03					70822-1.RAW	7:27:48	2.92	Sample	OK	1
SEQ-CAL1	A4		1	1.55	0.59			112.61		70823-1.RAW	7:31:56	57.40	Sample	OK	1
SEQ-CAL2	A5		1	1.55	1.05			105.45		70824-1.RAW	7:38:04	106.23	Sample	OK	1
SEQ-CAL3	A6		1	1.55	4.79			95.73		70825-1.RAW	7:42:13	476.78	Sample	OK	1
SEQ-CAL4	A7		1	1.55	18.52			92.00		70826-1.RAW	7:44:21	1839.98	Sample	OK	1
SEQ-CAL5	A8		1	1.55	37.49			93.72		70827-1.RAW	7:48:30	3722.97	Sample	FB	1
SEQ-CV1	A9		1	1.55	4.54			98.76		70828-1.RAW	7:52:38	491.90	Sample	OK	1
F707327-BLK1	A10		20	1.55	1.27					70829-1.RAW	7:56:46	7.85	Sample	OK	1
F707327-BLK2	A11		20	1.55	0.42					70830-1.RAW	8:00:55	3.69	Sample	OK	1
F707327-BLK3	A12		20	1.55	2.00					70831-1.RAW	8:05:03	11.48	Sample	OK	1
F707327-BS1	B1		20	1.55	94.78					70832-1.RAW	8:09:12	472.03	Sample	OK	1
F707327-BS2	B2		20	1.55	94.42					70833-1.RAW	8:13:20	470.19	Sample	OK	1
1706930-04	B3		100	1.55	30.09					70834-1.RAW	8:17:29	38.96	Sample	OK	1
1706930-05	B4		100	1.55	250.82					70835-1.RAW	8:21:37	290.26	Sample	OK	1
1706930-07	B5		100	1.55	8718.51					70836-1.RAW	8:25:45	8871.14	Sample	FB	1
1706931-03	B6		100	1.55	523.55					70837-1.RAW	8:29:54	521.29	Sample	OK	1
1706931-04	B7		100	1.55	169.80					70838-1.RAW	8:34:02	169.92	Sample	OK	1
SEQ-CCV1	B8		1	1.55	4.82			96.33		70839-1.RAW	8:38:11	479.55	Sample	OK	1
SEQ-CCB1	B9		1	1.55	0.01			0.00		70840-1.RAW	8:42:19	2.15	Sample	OK	1
1706931-06	B10		400	1.55	5163.44					70841-1.RAW	8:46:28	1283.01	Sample	OK	1
1706931-07	B11		400	1.55	3907.07					70842-1.RAW	8:50:36	971.18	Sample	OK	1
1706931-08	B12		400	1.55	1188.03					70843-1.RAW	8:54:44	1035.97	Sample	OK	1
1706932-01	C1		20	1.55	21.13					70844-1.RAW	8:58:53	106.42	Sample	OK	1
1706932-02	C2		20	1.55	150.98					70845-1.RAW	9:03:01	747.99	Sample	OK	1
1706932-03	C3		20	1.55	571.06					70846-1.RAW	9:07:10	2836.06	Sample	OK	1
1706932-04	C4		20	1.55	373.83					70847-1.RAW	9:11:18	1866.09	Sample	OK	1
1706932-05	C5		20	1.55	35.51					70848-1.RAW	9:15:26	177.80	Sample	OK	1
1706932-08	C6		400	1.55	655.83					70849-1.RAW	9:19:35	139.50	Sample	OK	1
1706932-09	C7		400	1.55	750.00					70850-1.RAW	9:23:43	167.84	Sample	OK	1
SEQ-CCV2	C8		1	1.55	4.02			96.45		70851-1.RAW	9:27:52	480.28	Sample	OK	1
SEQ-CCB2	C9		1	1.55	0.01			0.00		70852-1.RAW	9:32:00	2.76	Sample	OK	1
1706932-10	C10		100	1.55	705.36					70853-1.RAW	9:36:08	701.78	Sample	OK	1
1706933-01	C11		100	1.55	4342.40					70854-1.RAW	9:40:16	4312.53	Sample	OK	1
1706933-02	C12		100	1.55	835.24					70855-1.RAW	9:44:24	300.71	Sample	OK	1
1706933-03	D1		100	1.55	3793.85					70856-1.RAW	9:48:32	3757.77	Sample	FB	1
1706930-04RE1	D2		20	1.55	42.06					70857-1.RAW	10:00:14	210.88	Sample	OK	1
1706930-07RE1	D3		400	1.55	8860.89					70858-1.RAW	10:04:23	1704.26	Sample	OK	1
1706931-03RE1	D4		100	1.55	515.12					70859-1.RAW	10:08:31	512.92	Sample	OK	1
1706931-04RE1	D5		20	1.55	150.57					70860-1.RAW	10:12:40	748.93	Sample	OK	1
F707327-DUP1	D6		20	1.55	235.83					70861-1.RAW	10:16:48	1172.14	Sample	OK	1
F707327-MS1	D7		400	1.55	4456.02			1881.49		70862-1.RAW	10:20:56	1107.45	Sample	OK	1
SEQ-CCV3	D8		1	1.55	4.62			96.38		70863-1.RAW	10:25:05	479.95	Sample	OK	1
SEQ-CCB3	D9		1	1.55	0.03			0.00		70864-1.RAW	10:29:13	4.80	Sample	OK	1
F707327-MSU1	D10		400	1.55	4544.86					70865-1.RAW	10:33:22	1129.52	Sample	OK	1
F707327-MS2	D11		400	1.55	4930.77			94.59		70866-1.RAW	10:37:30	1008.92	Sample	OK	1
F707327-MSD2	D12		400	1.55	4055.69					70867-1.RAW	10:41:38	1008.09	Sample	OK	1
1706933-01RE1	A1		400	1.55	4535.12					70868-1.RAW	10:45:47	1077.44	Sample	OK	1
1706933-02RE1	A2		100	1.55	798.03					70869-1.RAW	10:49:55	791.78	Sample	OK	1
F707328-BLK1	A3		20	1.55	0.36					70870-1.RAW	10:54:04	8.45	Sample	OK	1
F707328-BLK2	A4		20	1.55	0.88					70871-1.RAW	10:58:12	6.43	Sample	OK	1
F707328-BLK3	A5		20	1.55	0.67					70872-1.RAW	11:02:21	4.67	Sample	OK	1
F707328-RS1	A6		20	1.55	94.22					70873-1.RAW	11:06:29	489.21	Sample	OK	1
F707328-BSD1	A7		20	1.55	93.24					70874-1.RAW	11:10:37	464.96	Sample	OK	1
SEQ-CCV4	A8		1	1.55	4.73			94.68		70875-1.RAW	11:14:45	471.51	Sample	OK	1
SEQ-CCB4	A9		1	1.55	0.03			0.00		70876-1.RAW	11:18:54	4.03	Sample	OK	1

F707372-BSD1	B12	1	1.55	15.19
1706469-06	C1	10	1.55	30.17
1707148-01	C2	1	1.55	0.38
1707148-02	C3	1	1.55	0.08
1707292-01	C4	1	1.55	2.19
1707292-02	C5	1	1.55	0.03
F707372-DUP1	C6	1	1.55	2.23
F707372-MS1	C7	1	1.55	10.93
SEQ-CCVA	C8	1	1.55	4.91
SEQ-CCBA	C9	1	1.55	0.07
F707372-MSD1	C10	1	1.55	11.08
SEQ-CCVB	C11	1	1.55	4.89
SEQ-CCB3	C12	1	1.55	0.05

337.73

71044-1.RAW	15:57.54	1509.32	Sample	OK	1
71045-1.RAW	16:02.02	301.06	Sample	OK	1
71046-1.RAW	16:06.11	39.37	Sample	OK	1
71047-1.RAW	16:10.19	9.81	Sample	OK	1
71048-1.RAW	16:14.28	216.13	Sample	OK	1
71049-1.RAW	16:18.36	4.60	Sample	OK	1
71050-1.RAW	16:22.44	223.41	Sample	OK	1
71051-1.RAW	16:26.53	1086.11	Sample	OK	1
71052-1.RAW	16:31.01	489.50	Sample	OK	1
71053-1.RAW	16:35.10	8.64	Sample	OK	1
71054-1.RAW	16:39.18	1101.19	Sample	OK	1
71055-1.RAW	16:43.26	485.62	Sample	OK	1
71056-1.RAW	16:47.35	5.95	Sample	OK	1

Failing Data Report - 7G14006

Sample ID	Analysis	Result	MRI	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1706930-07	Hg-CVAFS-T-7030	515	3.83				ng/g						FAIL-OVER	PASS	E
1706933-01	Hg-CVAFS-T-7030	1820	21.0				ng/g						FAIL-OVER	PASS	E
1706933-04	Hg-CVAFS-T-7030	3490	14.9				ng/g						FAIL-OVER	PASS	E
1706933-05	Hg-CVAFS-T-7030	1400	11.3				ng/g						FAIL-OVER	PASS	E
1706933-06	Hg-CVAFS-T-7030	1990	16.2				ng/g						FAIL-OVER	PASS	E
1706933-07	Hg-CVAFS-T-7030	2380	14.0				ng/g						FAIL-OVER	PASS	E
1706933-08	Hg-CVAFS-T-7030	3380	36.5				ng/g						FAIL-OVER	PASS	E
1706933-10	Hg-CVAFS-T-7030	2980	12.2				ng/g						FAIL-OVER	PASS	E
1706933-11	Hg-CVAFS-T-7030	2480	13.0				ng/g						FAIL-OVER	PASS	E
1706933-12	Hg-CVAFS-T-7030	5660	13.2				ng/g						FAIL-OVER	PASS	E
1706935-02	Hg-CVAFS-T-7030	2690	29.5				ng/g						FAIL-OVER	PASS	E
1706934-02	Hg-CVAFS-T-7030	2460	20.4				ng/g						FAIL-OVER	PASS	E
F707327-DUP1	Hg-CVAFS-T-7030	18.29	0.779	11.59	11.59		ng/g				44.8	24.00	PASS-OVER	FAIL-DUP	QR-07

Don Maxem
 Analyst Reviewed By

7/14/17
 Date

Pauling
 Peer Reviewed By

7/14/17
 Date

Failing Data Report - 7G14007

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Don Makem 7/14/17
Analyst Reviewed By Date

Be Cis 7/14/17
Peer Reviewed By Date

ANALYSIS SEQUENCE

7G14006

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14006-IBL1	QC	1			
7G14006-IBL2	QC	2			
7G14006-IBL3	QC	3			
7G14006-CAL1	QC	4	1702602		
7G14006-CAL2	QC	5	1702603		
7G14006-CAL3	QC	6	1702604		
7G14006-CAL4	QC	7	1702605		
7G14006-CAL5	QC	8	1702606		
7G14006-ICV1	QC	9	1703679		
F707327-BLK1	QC	10			
F707327-BLK2	QC	11			
F707327-BLK3	QC	12			
F707327-BS1	QC	13			
F707327-BSD1	QC	14			
1706930-04	Hg-CVAFS-T-7030	15			
1706930-05	Hg-CVAFS-T-7030	16			
1706930-07	Hg-CVAFS-T-7030	17			
1706931-03	Hg-CVAFS-T-7030	18			
1706931-04	Hg-CVAFS-T-7030	19			
7G14006-CCV1	QC	20	1703679		
7G14006-CCB1	QC	21			
1706931-06	Hg-CVAFS-T-7030	22			
1706931-07	Hg-CVAFS-T-7030	23			
1706931-08	Hg-CVAFS-T-7030	24			
1706932-01	Hg-CVAFS-T-7030	25			
1706932-02	Hg-CVAFS-T-7030	26			
1706932-03	Hg-CVAFS-T-7030	27			
1706932-04	Hg-CVAFS-T-7030	28			
1706932-05	Hg-CVAFS-T-7030	29			
1706932-08	Hg-CVAFS-T-7030	30			
1706932-09	Hg-CVAFS-T-7030	31			
7G14006-CCV2	QC	32	1703679		
7G14006-CCB2	QC	33			
1706932-10	Hg-CVAFS-T-7030	34			
1706933-01	Hg-CVAFS-T-7030	35			

Due Date: 7/31/2017

ANALYSIS SEQUENCE

7G14006

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706933-02	Hg-CVAFS-T-7030	36			
1706933-03	Hg-CVAFS-T-7030	37			
1706930-04RE1	Hg-CVAFS-T-7030	38			Added 7/14/2017 by DM2
1706930-07RE1	Hg-CVAFS-T-7030	39			Added 7/14/2017 by DM2
1706931-03RE1	Hg-CVAFS-T-7030	40			Added 7/14/2017 by DM2
1706931-04RE1	Hg-CVAFS-T-7030	41			Added 7/14/2017 by DM2
F707327-DUP1	QC	42			
F707327-MS1	QC	43			
7G14006-CCV3	QC	44	1703679		
7G14006-CCB3	QC	45			
F707327-MSD1	QC	46			
F707327-MS2	QC	47			
F707327-MSD2	QC	48			
1706933-01RE1	Hg-CVAFS-T-7030	49			Added 7/14/2017 by DM2
1706933-02RE1	Hg-CVAFS-T-7030	50			Added 7/14/2017 by DM2
F707328-BLK1	QC	51			
F707328-BLK2	QC	52			
F707328-BLK3	QC	53			
F707328-BS1	QC	54			
F707328-BSD1	QC	55			
7G14006-CCV4	QC	56	1703679		
7G14006-CCB4	QC	57			
F707327-DUP2	QC	58			
1706933-04	Hg-CVAFS-T-7030	59			
1706933-05	Hg-CVAFS-T-7030	60			
1706933-06	Hg-CVAFS-T-7030	61			
1706933-07	Hg-CVAFS-T-7030	62			
1706933-08	Hg-CVAFS-T-7030	63			
1706933-09	Hg-CVAFS-T-7030	64			
1706933-10	Hg-CVAFS-T-7030	65			
1706933-11	Hg-CVAFS-T-7030	66			
1706933-12	Hg-CVAFS-T-7030	67			
7G14006-CCV5	QC	68	1703679		
7G14006-CCB5	QC	69			
1706934-01	Hg-CVAFS-T-7030	70			

Due Date: 7/31/2017

ANALYSIS SEQUENCE

7G14006

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706935-02	Hg-CVAFS-T-7030	71			
1706933-04RE1	Hg-CVAFS-T-7030	72			Added 7/14/2017 by DM2
1706933-05RE1	Hg-CVAFS-T-7030	73			Added 7/14/2017 by DM2
1706933-06RE1	Hg-CVAFS-T-7030	74			Added 7/14/2017 by DM2
1706933-07RE1	Hg-CVAFS-T-7030	75			Added 7/14/2017 by DM2
1706933-08RE1	Hg-CVAFS-T-7030	76			Added 7/14/2017 by DM2
1706933-09RE1	Hg-CVAFS-T-7030	77			Added 7/14/2017 by DM2
1706933-10RE1	Hg-CVAFS-T-7030	78			Added 7/14/2017 by DM2
1706933-11RE1	Hg-CVAFS-T-7030	79			Added 7/14/2017 by DM2
7G14006-CCV6	QC	80	1703679		
7G14006-CCB6	QC	81			
1706933-12RE1	Hg-CVAFS-T-7030	82			Added 7/14/2017 by DM2
1706935-02RE1	Hg-CVAFS-T-7030	83			Added 7/14/2017 by DM2
1706933-04RE2	Hg-CVAFS-T-7030	84			Added 7/14/2017 by DM2
1706934-02	Hg-CVAFS-T-7030	85			
1706934-03	Hg-CVAFS-T-7030	86			
1706934-04	Hg-CVAFS-T-7030	87			
1706934-05	Hg-CVAFS-T-7030	88			
1706935-03	Hg-CVAFS-T-7030	89			
1706935-04	Hg-CVAFS-T-7030	90			
1706935-05	Hg-CVAFS-T-7030	91			
7G14006-CCV7	QC	92	1703679		
7G14006-CCB7	QC	93			
1706935-06	Hg-CVAFS-T-7030	94			
1706935-07	Hg-CVAFS-T-7030	95			
1706934-02RE1	Hg-CVAFS-T-7030	96			Added 7/14/2017 by DM2
1706934-03RE1	Hg-CVAFS-T-7030	97			Added 7/14/2017 by DM2
F707328-DUP1	QC	98			
F707328-MS1	QC	99			
F707328-MSD1	QC	100			
F707328-MS2	QC	101			
F707328-MSD2	QC	102			
F707328-DUP2	QC	103			
7G14006-CCV8	QC	104	1703679		
7G14006-CCB8	QC	105			

Due Date: 7/31/2017

ANALYSIS SEQUENCE

7G14006

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14006-CCV9	QC	106	1703679		
7G14006-CCB9	QC	107			
F707328-MS3	QC	108			
F707328-MSD3	QC	109			
7G14006-CCVA	QC	110	1703679		
7G14006-CCBA	QC	111			

Don Maxam 7/13/17
 Samples Loaded By Date

Don Maxam 7/14/17
 Data Processed By Date

ANALYSIS SEQUENCE

7G14007



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14007-IBL1	QC	1			
7G14007-IBL2	QC	2			
7G14007-IBL3	QC	3			
7G14007-CAL1	QC	4	1702602		
7G14007-CAL2	QC	5	1702603		
7G14007-CAL3	QC	6	1702604		
7G14007-CAL4	QC	7	1702605		
7G14007-CAL5	QC	8	1702606		
7G14007-ICV1	QC	9	1703679		
7G14007-CCV1	QC	10	1703679		
7G14007-CCB1	QC	11			
7G14007-CCV2	QC	12	1703679		
7G14007-CCB2	QC	13			
7G14007-CCV3	QC	14	1703679		
7G14007-CCB3	QC	15			
7G14007-CCV4	QC	16	1703679		
7G14007-CCB4	QC	17			
7G14007-CCV5	QC	18	1703679		
7G14007-CCB5	QC	19			
7G14007-CCV6	QC	20	1703679		
7G14007-CCB6	QC	21			
7G14007-CCV7	QC	22	1703679		
7G14007-CCB7	QC	23			
7G14007-CCV8	QC	24	1703679		
7G14007-CCB8	QC	25			
F707372-BLK1	QC	26			
F707372-BLK2	QC	27			
F707372-BLK3	QC	28			
F707372-BLK4	QC	29			
F707372-BLK5	QC	30			
F707372-BLK6	QC	31			
F707372-BLK7	QC	32			
F707372-BLK8	QC	33			
F707372-BLK9	QC	34			
F707372-BS1	QC	35			

Due Date: 7/14/2017

ANALYSIS SEQUENCE

7G14007



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14007-CCV9	QC	36	1703679		
7G14007-CCB9	QC	37			
F707372-BSD1	QC	40			
1706489-06	Hg-CVAFS-W-1631-WI DNR	41			
1707148-01	Hg-CVAFS-W-1631-WI DNR	42			
1707148-02	Hg-CVAFS-W-1631-WI DNR	43			
1707292-01	Hg-CVAFS-W-1631-WI DNR	44			
1707292-02	Hg-CVAFS-W-1631-WI DNR	45			
F707372-DUP1	QC	46			
F707372-MS1	QC	47			
7G14007-CCVA	QC	48	1703679		
7G14007-CCBA	QC	49			
F707372-MSD1	QC	50			
7G14007-CCVB	QC	51	1703679		
7G14007-CCBB	QC	52			

Don Moxam 7/13/17
 Samples Loaded By Date

Don Moxam 7/14/17
 Data Processed By Date

ANALYSIS SEQUENCE

7G14007

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14007-IBL1	QC	1			
7G14007-IBL2	QC	2			
7G14007-IBL3	QC	3			
7G14007-CAL1	QC	4	1702602		
7G14007-CAL2	QC	5	1702603		
7G14007-CAL3	QC	6	1702604		
7G14007-CAL4	QC	7	1702605		
7G14007-CAL5	QC	8	1702606		
7G14007-ICV1	QC	9	1703679		
7G14007-CCV1	QC	10	1703679		
7G14007-CCB1	QC	11			
7G14007-CCV2	QC	12	1703679		
7G14007-CCB2	QC	13			
7G14007-CCV3	QC	14	1703679		
7G14007-CCB3	QC	15			
7G14007-CCV4	QC	16	1703679		
7G14007-CCB4	QC	17			
7G14007-CCV5	QC	18	1703679		
7G14007-CCB5	QC	19			
7G14007-CCV6	QC	20	1703679		
7G14007-CCB6	QC	21			
7G14007-CCV7	QC	22	1703679		
7G14007-CCB7	QC	23			
7G14007-CCV8	QC	24	1703679		
7G14007-CCB8	QC	25			
F707372-BLK1	QC	26			
F707372-BLK2	QC	27			
F707372-BLK3	QC	28			
F707372-BLK4	QC	29			
F707372-BLK5	QC	30			
F707372-BLK6	QC	31			
F707372-BLK7	QC	32			
F707372-BLK8	QC	33			
F707372-BLK9	QC	34			
F707372-BS1	QC	35			

PC 7/14/17

Due Date: 7/14/2017

ANALYSIS SEQUENCE

7G14007

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14007-CCV9	QC	36	1703679		
7G14007-CCB9	QC	37			
F707328-MS4	QC	38			
F707328-MSD4	QC	39			
F707372-BSD1	QC	40			
1706489-06	Hg-CVAFS-W-1631-W1 DNR	41			
1707148-01	Hg-CVAFS-W-1631-W1 DNR	42			
1707148-02	Hg-CVAFS-W-1631-W1 DNR	43			
1707292-01	Hg-CVAFS-W-1631-W1 DNR	44			
1707292-02	Hg-CVAFS-W-1631-W1 DNR	45			
F707372-DUP1	QC	46			
F707372-MS1	QC	47			
7G14007-CCVA	QC	48	1703679		
7G14007-CCBA	QC	49			
F707372-MSD1	QC	50			
7G14007-CCVB	QC	51	1703679		
7G14007-CCBB	QC	52			

Don Moseem 7/13/17
 Samples Loaded By Date

Don Moseem 7/14/17
 Data Processed By Date

BC 7/14/17

PREPARATION BENCH SHEET

F707372

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 7/13/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707372-BLK1	Blank	100	101					SOURCE4 1707148-03
F707372-BLK2	Blank	100	101					SOURCE4 1707148-03
F707372-BLK3	Blank	100	101					SOURCE4 1707148-03
F707372-BLK4	Blank	100	105					SOURCE 1706489-22
F707372-BLK5	Blank	100	105					SOURCE 1706489-22
F707372-BLK6	Blank	100	105					SOURCE 1706489-22
F707372-BLK7	Blank	100	101					SOURCE 1707292-03
F707372-BLK8	Blank	100	101					SOURCE 1707292-03
F707372-BLK9	Blank	100	101					SOURCE 1707292-03
F707372-BS1	LCS	50	50.5	1604715	100			
F707372-BSD1	LCS Dup	50	50.5	1604715	100			
F707372-DUP1	Duplicate [1707292-01]	100	101					
F707372-MS1	Matrix Spike [1707292-01]	49.50495	50	1702556	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F707372-MSD1	Matrix Spike Dup [1707292-01]	49.50495	50	1702556	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1604715	Nist 1641D 200X	18-Aug-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1702556	THg 10ng/mL Calibration Standard	26-Jul-17 00:00	1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703377	THg Dilute 1% BrCl	
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00

PREPARATION BENCH SHEET

F707372

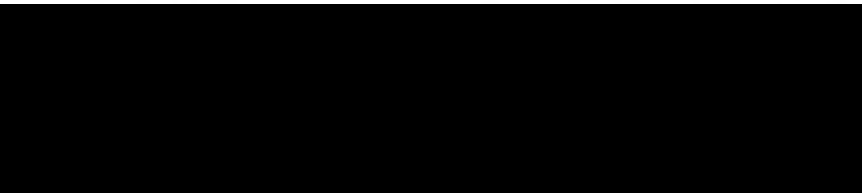
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 7/13/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706489-06	6 J2 Wastewater	100	105	-	-	-	Preservation Blank Created	
1707148-01	1707039-03 Monthly Effluent Mercury	100	101	-	-	-	Preservation Blank Created	
1707148-02	1707039-04 Monthly Effluent Mercury - Blank	100	101	-	-	-	Preservation Blank Created	
1707292-01	1707090-01 Johnson Controls Outfall	100	101	-	-	-	Preservation Blank Created	
1707292-02	1707090-02 Johnson Controls Outfall - Blank	100	101	-	-	-	Preservation Blank Created	



PREPARATION BENCH SHEET

F707327

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707327-BLK1	Blank	0.25	20					
F707327-BLK2	Blank	0.25	20					
F707327-BLK3	Blank	0.25	20					
F707327-BS1	LCS	0.25	20	1702555	20			
F707327-BSD1	LCS Dup	0.25	20	1702555	20			
F707327-DUP1	Duplicate [1706931-04RE1]	0.2566	20					
F707327-DUP2	Duplicate [1706931-04RE1]	0.2577	20					
F707327-MS1	Matrix Spike [1706932-04]	0.2515	20	1700685	100			
F707327-MS2	Matrix Spike [1706932-05]	0.2604	20	1700685	100			
F707327-MSD1	Matrix Spike Dup [1706932-04]	0.2531	20	1700685	100			
F707327-MSD2	Matrix Spike Dup [1706932-05]	0.2684	20	1700685	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
			1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703377	THg Dilute 1% BrCl	
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
			1704145	5% BrCl	18-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00

PREPARATION BENCH SHEET

F707327

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID	Initial (g)	Final (ml.)	QC Sample	Sample Spces.	Raw Data	Sample Comments	Analysis Comments
1706930-04	MMSE-I_17BN001_062117_TIN_04_WB	0.2765	20	-	-	-		
1706930-04RE1	MMSE-I_17BN001_062117_TIN_04_WB	0.2765	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706930-05	MMSE-I_17BN003_062117_TIN_05_WB	0.255	20	-	-	-		
1706930-07	MMSE-I_17PT002_062117_SPI_02_WB	0.2608	20	-	-	-		
1706930-07RE1	MMSE-I_17PT002_062117_SPI_02_WB	0.2608	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706931-03	MMSW-C_17BN002_062317_TIN_03_WB	0.2997	20	-	-	-		
1706931-03RE1	MMSW-C_17BN002_062317_TIN_03_WB	0.2997	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706931-04	MMSW-C_17BN001_062317_TIN_04_WB	0.2577	20	-	-	-		
1706931-04RE1	MMSW-C_17BN001_062317_TIN_04_WB	0.2577	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706931-06	MMSW-C_17PT002_062317_SPI_01_WB	0.2565	20	-	-	-		
1706931-07	MMSW-C_17PT002_062317_SPI_02_WB	0.2563	20	-	-	-		
1706931-08	MMSW-C_17PT003_062317_SPI_03_WB	0.2564	20	-	-	-		
1706932-01	ADD-01_17BN001_062317_TIN_01_WB	0.2592	20	-	-	-		
1706932-02	ADD-01_17BN002_062317_TIN_02_WB	0.2602	20	-	-	-		
1706932-03	ADD-01_17BN003_062317_TIN_03_WB	0.2728	20	-	-	-		
1706932-04	ADD-01_17BN004_062317_TIN_04_WB	0.2978	20	QC	-	-	MS/MSD	
1706932-05	ADD-01_17HC002_062317_TIN_05_WB	0.2615	20	QC	-	-	MS/MSD	
1706932-08	ADD-01_17HC001_062717_SPI_03_WB	0.2512	20	-	-	-		
1706932-09	ADD-01_17HC002_062717_SPI_04_WB	0.2614	20	-	-	-		

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707327

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

1706932-10	ADD-01_17HC001_062717_SPI_05_WB	0.2561	20	-	-	-		
1706933-01	W17-N_17MN001_061917_NSS_01_BL	0.0476	20	-	-	-		
1706933-01RE1	W17-N_17MN001_061917_NSS_01_BL	0.0476	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-02	W17-N_17MN008_061917_NSS_02_BL	0.0094	20	-	-	-		
1706933-02RE1	W17-N_17MN008_061917_NSS_02_BL	0.0094	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-03	W17-N_17MN007_062017_NSS_03_BL	0.0288	20	-	-	-		

PREPARATION BENCH SHEET

F707328

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707328-BLK1	Blank	0.25	20					
F707328-BLK2	Blank	0.25	20					
F707328-BLK3	Blank	0.25	20					
F707328-BS1	LCS	0.25	20	1702555	20			
F707328-BSD1	LCS Dup	0.25	20	1702555	20			
F707328-DUP1	Duplicate [1706933-05RE1]	0.0166	20					
F707328-DUP2	Duplicate [1706933-05RE1]	0.0888	20					
F707328-MS1	Matrix Spike [1706933-06RE1]	0.0574	20	1700685	100			
F707328-MS2	Matrix Spike [1706934-01]	0.0633	20	1700685	100			
F707328-MS3	Matrix Spike [1706933-06RE1]	0.00015425	0.05	1702556	100			[Spk] 0.0617g->20mL; 40mL->40mL; Spiked 0.05mL
F707328-MSD1	Matrix Spike Dup [1706933-06RE1]	0.0651	20	1700685	100			
F707328-MSD2	Matrix Spike Dup [1706934-01]	0.0971	20	1700685	100			
F707328-MSD3	Matrix Spike Dup [1706933-06RE1]	0.00015425	0.05	1702556	100			[Spk] 0.0617g->20mL; 40mL->40mL; Spiked 0.05mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1702556	THg 10ng/mL Calibration Standard	26-Jul-17 00:00	1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703377	THg Dilute 1% BrCl	
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
			1704145	5% BrCl	18-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00

PREPARATION BENCH SHEET

F707328

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706933-04	W17-N_17MN001_062017_NSS_04_BI	0.0671	20	-	-	-		
1706933-04RE1	W17-N_17MN001_062017_NSS_04_BL	0.0671	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-04RE2	W17-N_17MN001_062017_NSS_04_BL	0.0671	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-05	W17-N_17MN002_062017_NSS_05_BI	0.0888	20	-	-	-		
1706933-05RE1	W17-N_17MN002_062017_NSS_05_BL	0.0888	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-06	W17-N_17MN007_062017_NSS_06_BI	0.0617	20	QC	-	-	MS/MSD	
1706933-06RE1	W17-N_17MN007_062017_NSS_06_BI	0.0617	20	QC	-	-	MS/MSD Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-07	W17-N_17MN010_062017_NSS_07_BI	0.0713	20	-	-	-		
1706933-07RE1	W17-N_17MN010_062017_NSS_07_BL	0.0713	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-08	W17-N_17MN037_062517_NSS_08_BI	0.0274	20	-	-	-		
1706933-08RE1	W17-N_17MN037_062517_NSS_08_BL	0.0274	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-09	W17-N_17MN037_062517_NSS_09_BI	0.0375	20	-	-	-		
1706933-09RE1	W17-N_17MN037_062517_NSS_09_BL	0.0375	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-10	W17-N_17MN041_062517_NSS_10_BI	0.0823	20	-	-	-		
1706933-10RE1	W17-N_17MN041_062517_NSS_10_BI	0.0823	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-11	W17-N_17MN058_062617_NSS_11_BI	0.0772	20	-	-	-		
1706933-11RE1	W17-N_17MN058_062617_NSS_11_BL	0.0772	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-12	W17-N_17MN063_062917_NSS_12_BI	0.0757	20	-	-	-		
1706933-12RE1	W17-N_17MN063_062917_NSS_12_BL	0.0757	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707328

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

1706934-01	W17-N_17MN002_061917_RWB_01_BL	0.066	20	QC	-	-	MS/MSD	
1706934-02	W17-N_17MN005_061917_RWB_02_BL	0.1961	20	-	-	-		
1706934-02RE1	W17-N_17MN005_061917_RWB_02_BL	0.1961	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706934-03	W17-N_17MN006_061917_RWB_03_BL	0.0736	20	-	-	-		
1706934-03RE1	W17-N_17MN006_061917_RWB_03_BL	0.0736	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706934-04	W17-N_17MN006_061917_RWB_04_BL	0.0142	20	-	-	-		
1706934-05	W17-N_17MN037_062517_RWB_05_BL	0.0487	20	-	-	-		
1706935-02	MMSE-1_17MN009_062117_NSS_02_BL	0.1355	20	-	-	-		
1706935-02RE1	MMSE-1_17MN009_062117_NSS_02_BL	0.1355	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706935-03	MMSE-1_17MN007_062117_NSS_03_BL	0.1139	20	-	-	-		
1706935-04	MMSE-1_17MN011_062117_NSS_04_BL	0.0656	20	-	-	-		
1706935-05	MMSE-1_17MN010_062117_NSS_05_BL	0.1203	20	-	-	-		
1706935-06	MMSE-1_17MN010_062117_NSS_06_BL	0.023	20	-	-	-		
1706935-07	MMSE-1_17MN001_062117_NSS_07_BL	0.0587	20	-	-	-		

PREPARATION BENCH SHEET

200.3
7/13/17 DM

F707372

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

WT-DNR

Prepared: 7/13/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707372-BLK1	Blank	100	101					Source 1707148.03 IX
F707372-BLK2	Blank	100	101					" " IX
F707372-BLK3	Blank	100	101					" " IX
F707372-BLK4	Blank	100	101					Source 1702489.06 22 IX
F707372-BLK5	Blank	100	101					" " IX
F707372-BLK6	Blank	100	101					" " IX
F707372-BLK7	Blank	100	101					Source 1707292.03 IX
F707372-BLK8	Blank	100	101					" " IX
F707372-BLK9	Blank	100	101					" " IX
F707372-BS1	LCS	50 100	50.5 101	1604715	100			IX
F707372-BSD1	LCS Dup	50 100	50.5 101	1604715	100			IX
F707372-DUPI	Duplicate 1707292.01	100	101					IX
F707372-MS1	Matrix Spike 1707292.01	100	101	1702556	50			IX
F707372-MSD1	Matrix Spike Dup 1707292.01	100	101	1702556	50			IX

Standard ID(s): Description:

Expiration:

17031892
1703376
1703377
1704095

PREPARATION BENCH SHEET

2690.3

7/13/17 DM

F707372

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 7/13/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706489-06	6 J2 Wastewater	100	101 105	-	-	-	Preservation Blank Created	10X
1707148-01	1707039-03 Monthly Effluent Mercury	100	101	-	-	-	Preservation Blank Created	1X
1707148-02	1707039-04 Monthly Effluent Mercury - Blank	100	101	-	-	-	Preservation Blank Created	1X
1707292-01	1707090-01 Johnson Controls Outfall	100	101	-	-	-	Preservation Blank Created	1X
1707292-02	1707090-02 Johnson Controls Outfall - Blank	100	101	-	-	-	Preservation Blank Created	1X



Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: CB Date: 7/7/17 Time Completed: 9:30

Work Orders: 1706489
1707101

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1703700
Pipette SN: JH04193
Cal. Date: 5/25/17

Additional preservation (as needed)

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1706489-06A	300	9.00	Y			
1706489-22A	300	15.00	Y			
1707101-01A	125	1.25	Y			
<div style="font-size: 4em; opacity: 0.5; transform: rotate(-15deg); position: absolute; top: 50%; left: 50%;"> 7/7/17 </div>						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: CB Date: 7/7/17 Time Completed: 15:00

Work Orders: 1707148, 1707150

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1703700

Pipette SN: JH04193

Cal. Date: 5/25/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1707148-01A	300	3.00	Y			
1707148-02A	300	3.00	Y			
1707148-03A	300	3.00	Y			
1707150-01A	300	3.00	Y			
1707150-02A	300	3.00	Y			
1707150-03A	300	3.00	Y			
1707150-04A	300	3.00	Y			
1707150-05A	300	3.00	Y			
1707150-06A	300	3.00	Y			
1707150-07A	300	3.00	Y			
1707150-08A	300	3.00	Y			
<div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em; opacity: 0.5;"> CB 7/7/17 </div>						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

CB 7/11/17
 Reviewed
 No issues

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: CB Date: 7/12/17 Time Completed: 1500

Work Orders: 1707290, 1707292, 1707295, 1707293, 1707294, 1707295
 BrCl LIMS ID: 1703700

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Technician: _____ Date: _____ Time Completed: _____

Pipette SN: JO 7631

Cal. Date: 7/14/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1707290-01A	300	3.00	Y			
1707290-02A	300	3.00	Y			
1707290-03A	300	3.00	Y			
1707290-04A	300	3.00	Y			
1707290-05B (split)	^{7/12/17} 200 _{10.00}	^{7/12/17} 10.00 ₂₀	Y			
1707290-06A	300	3.00	Y			
1707292-01A	300	3.00	Y			
1707292-02A	300	3.00	Y			
1707292-03A	300	3.00	Y			
1707293-01B	300	3.00	Y			
1707293-02B	300	3.00	Y			
1707293-03B	300	3.00	Y			
1707293-04B	300	3.00	Y			
1707293-05B	300	3.00	Y			
1707293-06B	300	3.00	Y			
1707294-01B	300	3.00	Y			
1707294-02B	300	3.00	Y			
1707294-03B	300	3.00	Y			
1707295-01A	300	3.00	Y			
1707295-02A	300	3.00	Y			
<i>CB 7/12/17</i>						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

*Reviewed
7/18/17*

PREPARATION BENCH SHEET

2600-3
7/19/17 DM

F707327

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017
7/10/2017
7/12/17

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707327-BLK1	Blank	0.25	20					20X
F707327-BLK2	Blank	0.25	20					20X
F707327-BLK3	Blank	0.25	20					20X
F707327-BS1	LCS	0.25	20	1702555	20			20X
F707327-BSD1	LCS Dup ^{CIC} _{7/12/17}	0.25	20	1702555	20			20X
F707327-DUP1	Duplicate [1706932-04] 1706931-04RE1	0.2566	20					20X
F707327-MS1	Matrix Spike [1706932-04]	0.2515	20	1700685	100			400X
F707327-MS2	Matrix Spike [1706932-05]	0.2604	20	1700685	100			400X
F707327-MSD1	Matrix Spike Dup [1706932-04]	0.2531	20	1700685	100			400X
F707327-MSD2	Matrix Spike Dup [1706932-05]	0.2684	20	1700685	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1704145	5% BrCl	18-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00

DUP2-AD
1706931-04RE1
20X

1704095
1709377
1703376
1703182

PREPARATION BENCH SHEET

F707327

Eurofins Frontier Global Sciences, Inc.

200-3

7/13/17 DM

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/10/2017 *Si-Fire*

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706930-04	MMSE-1_17BN001_062117_TIN_04_WB	0.2765	20	-	-	-		100X → 20X
1706930-05	MMSE-1_17BN003_062117_TIN_05_WB	0.255	20	-	-	-		100X
1706930-07	MMSE-1_17PT002_062117_SPI_02_WB	0.2608	20	-	-	-		100X → 400X
1706931-03	MMSW-C_17BN002_062317_TIN_03_WB	0.2997	20	-	-	-		100X → 100X
1706931-04	MMSW-C_17BN001_062317_TIN_04_WB	0.2577	20	-	-	-		100X → 20X
1706931-06	MMSW-C_17PT002_062317_SPI_01_WB	0.2565	20	-	-	-		20X 400X
1706931-07	MMSW-C_17PT002_062317_SPI_02_WB	0.2563	20	-	-	-		400X
1706931-08	MMSW-C_17PT003_062317_SPI_03_WB	0.2564	20	-	-	-		400X
1706932-01	ADD-01_17BN001_062317_TIN_01_WB	0.2592	20	-	-	-		20X
1706932-02	ADD-01_17BN002_062317_TIN_02_WB	0.2602	20	-	-	-		20X
1706932-03	ADD-01_17BN003_062317_TIN_03_WB	0.2728	20	-	-	-		20X
1706932-04	ADD-01_17BN004_062317_TIN_04_WB	0.2978	20	QC	-	-	MS/MSD	20X
1706932-05	ADD-01_17HC002_062317_TIN_05_WB	0.2615	20	QC	-	-	MS/MSD	20X
1706932-08	ADD-01_17HC001_062717_SPI_03_WB	0.2512	20	-	-	-		400X
1706932-09	ADD-01_17HC002_062717_SPI_04_WB	0.2614	20	-	-	-		20X 400X
1706932-10	ADD-01_17HC001_062717_SPI_05_WB	0.2561	20	-	-	-		100X
1706933-01	W17-N_17MN001_061917_NSS_01_BL	0.0476	20	-	-	-		100X → 400X
1706933-02	W17-N_17MN008_061917_NSS_02_BL	0.0094	20	-	-	-		100X → 100X
1706933-03	W17-N_17MN007_062017_NSS_03_BL	0.0288	20	-	-	-		100X

PREPARATION BENCH SHEET

F707327

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: ~~7/10/2017~~
7/11/2017
7/12/17



Technician: CL/DH Batch#: F707327 Date: 7/11/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 1607 Actual Temp. (raw): 81.0 °C w/ CF: 81.0 °C
 Time out: 1807 Actual Temp. (raw): 81.0 °C w/ CF: 81.0 °C

*Time in can't begin before target temperature is reached
 Final vol.: 20 mL (LIMS ID: 1704145) Spike vol.: 100 µL (LIMS ID: 1700685)
 Spike Witness: DM 7/11/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: MU11619 Calibration Date: 7/5/17
 HNO₃ LIMS ID: NA Pipette SN#: NA Calibration Date: NA
 70/30 LIMS ID: 1704177 Dispenser #: DLK27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 20066828 Boiling Chip lot # 1702651 *Hotblock Position: 19

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F707327-BLK1	0.2756	23	1706932-04	0.2978	
2	F707327-BLK2	0.2785	24	1706932-05	0.2615	
3	F707327-BLK3	0.2813	25	1706932-06	0.2512	
4	F707327-BLKBS1	0.2556	26	1706932-09	0.2614	Comments
5	F707327-BSD1	0.2511	27	1706932-10	0.2561	
6	F707327-DUP1	0.2566	28	1706933-01	0.0476	MS1/MSD1 SRC: 1706932-04
7	F707327-MS1	0.2515	29	1706933-02	0.0094	MS2/MSD2
8	F707327-MSD1	0.2531	30	1706933-03	0.0288	SRC: 1706932-05
9	F707327-MS2	0.2604	31			Dup SRC 1706931-04 BS/BSD spiked 20ul of 100ug/ml 1702555 CLV 7/12/17
10	F707327-MSD2	0.2684	32			
11	1706930-04	0.2765	33			
12	1706930-05	0.2550	34			
13	1706930-07	0.2608	35			
14	1706931-03	0.2997	36			
15	1706931-04	0.2577	37			
16	1706931-05		38			
17	1706931-06	0.2565	39			
18	1706931-07	0.2563	40			
19	1706931-08	0.2564	41			
20	1706932-01	0.2592	42			
21	1706932-02	0.2602	43			
22	1706932-03	0.2728	44			

PREPARATION BENCH SHEET

200-3
7/13/17 DM

F707328

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707328-BLK1	Blank	0.25	20					20X
F707328-BLK2	Blank	0.25	20					20X
F707328-BLK3	Blank	0.25	20					20X
F707328-BS1	LCS	0.25	20	1702555	20			20X
F707328-BSD1	LCS Dup 1706933-06 ^{7/13/17}	0.25	20	1702555	20			20X
F707328-DUP1	Duplicate 1706933-06 ^{1706933-05 RE1}	0.166	20					400X
F707328-MS1	Matrix Spike [1706933-06] ^{RE1}	0.0574	20	1700685	100			400X
F707328-MS2	Matrix Spike [1706934-01]	0.0633	20	1700685	100			400X
F707328-MSD1	Matrix Spike Dup [1706933-06] ^{RE1}	0.0651	20	1700685	100			400X
F707328-MSD2	Matrix Spike Dup [1706934-01]	0.0971	20	1700685	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1.000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1704145	5% BrCl	18-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00

DUP2-AD 400X

1706933-05 RE1

MSB, MSD3, AS, ASD 1000X

Source 1706933-06 RE1

1004) 1702556

1703152

1703316

1703317

1704095

Due Date: 7/31/2017

2600-3

7/13/17 DM

PREPARATION BENCH SHEET

F707328

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706933-04	W17-N_17MN001_062017_NSS_04_BL	0.0671	20	-	-	-		100X → 400X → 400X
1706933-05	W17-N_17MN002_062017_NSS_05_BL	0.0888	20	-	-	-		100X → 400X
1706933-06	W17-N_17MN007_062017_NSS_06_BL	0.0617	20	QC	-	-	MS/MSD	100X → 400X
1706933-07	W17-N_17MN010_062017_NSS_07_BL	0.0713	20	-	-	-		100X → 400X
1706933-08	W17-N_17MN037_062517_NSS_08_BL	0.0274	20	-	-	-		100X → 400X
1706933-09	W17-N_17MN037_062517_NSS_09_BL	0.0375	20	-	-	-		100X → 400X
1706933-10	W17-N_17MN041_062517_NSS_10_BL	0.0823	20	-	-	-		100X → 400X
1706933-11	W17-N_17MN058_062617_NSS_11_BL	0.0772	20	-	-	-		100X → 400X
1706933-12	W17-N_17MN063_062917_NSS_12_BL	0.0757	20	-	-	-		100X → 400X 1000X
1706934-01	W17-N_17MN002_061917_RWB_01_BL	0.066	20	QC	-	-	MS/MSD	400X
1706934-02	W17-N_17MN005_061917_RWB_02_BL	0.1961	20	-	-	-		400X → 1000X
1706934-03	W17-N_17MN006_061917_RWB_03_BL	0.0736	20	-	-	-		400X → 400X
1706934-04	W17-N_17MN006_061917_RWB_04_BL	0.0142	20	-	-	-		400X
1706934-05	W17-N_17MN037_062517_RWB_05_BL	0.0487	20	-	-	-		400X
1706935-02	MMSE-1_17MN009_062117_NSS_02_BL	0.1355	20	-	-	-		400X → 1000X
1706935-03	MMSE-1_17MN007_062117_NSS_03_BL	0.1139	20	-	-	-		1000X
1706935-04	MMSE-1_17MN011_062117_NSS_04_BL	0.0656	20	-	-	-		1000X
1706935-05	MMSE-1_17MN010_062117_NSS_05_BL	0.1203	20	-	-	-		1000X
1706935-06	MMSE-1_17MN010_062117_NSS_06_BL	0.023	20	-	-	-		1000X

Due Date: 7/31/2017

PREPARATION BENCH SHEET

2600-3

7/13/17 DM

F707328

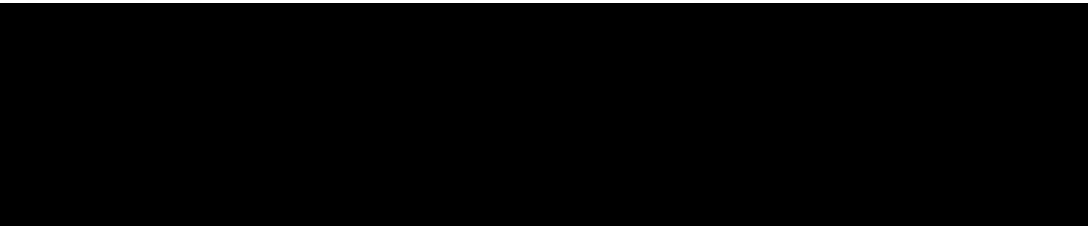
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

1706935-07	MMSE-1_17MN001_062117_NSS_07_BL	0.0587	20	-	-	-	10000
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Technician: ML Batch#: F707328 Date: 7/11/17

- EFASF-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFASF-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFASF-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFASF-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: 1368 Calibrated? Yes No

*Time in: 1607 Actual Temp. (raw): 81.0 °C w/ CF: 81.0 °C
 Time out: 1807 Actual Temp. (raw): 81.0 °C w/ CF: 81.0 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1704145) ^{MS/MSD} Spike vol.: 100 µL (LIMS ID: 1700685)
 Spike Witness: DM 7/11/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: MU11619 Calibration Date: 7/5/17
 HNO₃ LIMS ID: NA Pipette SN#: NA Calibration Date: NA
 70/30 LIMS ID: 1704177 Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 00067065 Boiling Chip lot # 1702551 *Hotblock Position: L4

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F707328-BLK1	0.2690	23	1706934-04	0.0142	
2	F707328-BLK2	0.2768	24	1706934-05	0.0487	
3	F707328-BLK3	0.2495	25	1706935-02	0.1355	
4	F707328-BS1	0.2915	26	1706935-03	0.1139	Comments
5	F707328-BSD1	0.2719	27	1706935-04	0.0606	MS1/MSD1
6	F707328-Dup1	0.0166	28	1706935-05	0.1203	SRL-1706933-06
7	F707328-MS1	0.0574	29	1706935-06	0.0230	MS2/MSD2
8	F707328-MSD1	0.0651	30	1706935-07	0.0587	SRL-1706934-01
9	F707328-MS2	0.0633	31			
10	F707328-MSD2	0.0971	32			Dup SRL
11	1706933-04	0.0671	33			1706933-05
12	1706933-05	0.0888	34			
13	1706933-06	0.0617	35			BS/BSD Spike:
14	1706933-07	0.0713	36			2nd of 100 µg/mL
15	1706933-08	0.0274	37			1702555
16	1706933-09	0.0375	38			CLC
17	1706933-10	0.0823	39			7/12/17
18	1706933-11	0.0772	40			
19	1706933-12	0.0757	41			
20	1706934-01	0.0660	42			
21	1706934-02	0.1961	43			
22	1706934-03	0.0736	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7G14006 7G14007
Reviewer:	<u>Ben C</u>	Dataset ID(s):	THG26003-170713-1
Date:	7/14/2017	WO (s) #:	VARIOUS
Batch #(s):	F707372, F707327, F707328		

• Select the correct preparation method.

Analyte	Prep Method		Matrix
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2885	FSIM Trap 70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input checked="" type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg0	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: DMReviewer Initials: BC

1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) YES NO
2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data YES NO
 - (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? YES NO

Naming convention: THg26001-yyymmdd-1 or THg26002-yyymmdd-1
 - (b) Check 5% of transcription from Instrument print-out and Excel file. YES NO

Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel
 - (c) Check standards & reagents in sequence & bench sheet for correct usage (expiration). YES NO N/A
 - (d) Check and compare masses (review prep benchsheet) YES NO N/A
 - (e) Check & compare initial & final volumes YES NO N/A
 - (f) Do aliquots and dilutions written on benchsheet match those in Excel? YES NO N/A

50 ml / aliquot = Excel dilution value
 - (g) Is the sequence #, analyst, date, and instrument # on the QC page? YES NO
 - (h) Is the analysis status correct? (analyzed/initial review/reviewed) YES NO
 - (i) Original prep bench sheet added to data package? YES NO
 - (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) YES NO
3. High QA? WO#(s)/Client(s): _____ YES NO
4. Client specific QC? (if Yes, refer to Project Notes/LIMS) YES NO
 - (a) Have the QC requirements been met for all WO#s? YES NO
 - (b) Prep blanks corrections/assigned properly YES NO
- 5a. 20 or fewer samples in batch? YES NO
 - (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? YES NO
 - (ii) 1 CCV and 1 CCB every 10 analytical runs? YES NO

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7G14006, 7G14007
Reviewer:	<i>[Signature]</i> 7/14/17	Dataset ID(s):	THG26003-170713-1
Date:	7/14/2017	WO (s) #:	VARIOUS
Batch #(s):	F707372, F707327, F707328		0

Analyst Initials DM Reviewer Initials BL

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF ($\leq 15\%$) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: **VARIOUS HIGH SAMPLES. ABOVE CALS. F707327-DUP1, F707328-DUP1 FAILED. HIGH RPD.**
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit; YES NO
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO N/A
 (c) Was a BrCI Blank analyzed for each preservation level? YES NO N/A
 (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7G14006, 7G14007
Reviewer:	0 <i>Beary</i>	Dataset ID(s):	THG26003-170713-1
Date:	7/14/2017	WO (s) #:	VARIOUS
Batch #(s):	F707372, F707327, F707328		0

Analyst Initials DM Reviewer Initials Be

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\C:\prum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | |
|---|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: <u>12-15-16, 11-23-16</u> IDOC/CDOC within last 12 months? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: <u>5/20/2016</u> Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>4-27-17, 5-9-17</u> LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>4-27-17, 5-9-17</u> LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1706935

July 20, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1706935

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July 20, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MMSE-1_17MN003_062117_NSS_01_BL	1706935-01	Tissue	21-Jun-17 07:00	30-Jun-17 09:50
MMSE-1_17MN009_062117_NSS_02_BL	1706935-02	Tissue	21-Jun-17 07:20	30-Jun-17 09:50
MMSE-1_17MN007_062117_NSS_03_BL	1706935-03	Tissue	21-Jun-17 08:20	30-Jun-17 09:50
MMSE-1_17MN011_062117_NSS_04_BL	1706935-04	Tissue	21-Jun-17 09:50	30-Jun-17 09:50
MMSE-1_17MN010_062117_NSS_05_BL	1706935-05	Tissue	21-Jun-17 10:00	30-Jun-17 09:50
MMSE-1_17MN010_062117_NSS_06_BL	1706935-06	Tissue	21-Jun-17 10:15	30-Jun-17 09:50
MMSE-1_17MN001_062117_NSS_07_BL	1706935-07	Tissue	21-Jun-17 10:30	30-Jun-17 09:50
MMSE-1_17MN002_062117_NSS_08_BL	1706935-08	Tissue	21-Jun-17 10:35	30-Jun-17 09:50
MMSE-1_17MN002_062117_NSS_09_BL	1706935-09	Tissue	21-Jun-17 10:40	30-Jun-17 09:50
MMSE-1_17MN010_062117_NSS_10_BL	1706935-10	Tissue	21-Jun-17 10:45	30-Jun-17 09:50
MMSE-1_17MN011_062217_NSS_11_BL	1706935-11	Tissue	22-Jun-17 08:20	30-Jun-17 09:50
MMSE-1_17MN011_062217_NSS_12_BL	1706935-12	Tissue	22-Jun-17 08:20	30-Jun-17 09:50
MMSE-1_17MN018_062217_NSS_13_BL	1706935-13	Tissue	22-Jun-17 09:00	30-Jun-17 09:50
MMSE-1_17MN011_062217_NSS_14_BL	1706935-14	Tissue	22-Jun-17 10:00	30-Jun-17 09:50
MMSE-1_17MN018_062217_NSS_15_BL	1706935-15	Tissue	22-Jun-17 11:00	30-Jun-17 09:50

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 6/30/2017 9:50:00 AM . The samples were received intact, on-ice within a sealed cooler at -33.8 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per work instructions EFSR-P-SP-WI11642 (eff date 11/23/16) prior to digestion.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches; F707328 and F707329. They were analyzed in sequences 7G14006 and 7G18008. Per client request, sample 1706935-01 was used as the source QC for the Matrix Spike (MS) and Matrix Spike Duplicate (MSD) in batch F707329.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

Sample Receipt Checklist

EFGS Work Order: 1706935

Client: AMEZ Foster Wheeler

Date & Time Received: 6/30/17 9:50

Date Labeled: 7/5/17 Labeled By: CB

Project: _____

Received By: LM

Label Verified By: LM

of Coolers Received: 1 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required Y/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>Y</u>	

TID: <u>43180</u>	CF: <u>46.2 °C</u>	Date/time: <u>6/30/17 9:50</u>	By: <u>LM</u>
Cooler 1: <u>-34 °C</u>	w/ CF: <u>-33.8 °C</u>	Cooler 4: _____ °C	w/ CF: _____ °C
Cooler 2: _____ °C	w/ CF: _____ °C	Cooler 5: _____ °C	w/ CF: _____ °C
Cooler 3: _____ °C	w/ CF: _____ °C	Cooler 6: _____ °C	w/ CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>MA</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>N</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>MA</u>	

Anomalies/Non-conformances (attach additional pages if needed):

1706935



Environmental Analysis Request/Chain of Custody

Project Name/ # USDC Penobscot AE 04101		PN # 3616166052 04A 054		Matrix				Analyses Requested					For Lab Use Only									
Project Manager Rod Pendleton		P.O. #		<table border="1" style="width:100%; text-align: center;"> <tr> <td rowspan="2">Sediment</td> <td>Coarse</td> <td>Subs</td> <td rowspan="2">Soil</td> <td rowspan="2">Water</td> <td rowspan="2">Other</td> </tr> <tr> <td>Fine</td> <td>SPES</td> </tr> </table>				Sediment	Coarse	Subs	Soil	Water	Other	Fine	SPES	Preservation Codes					SF #	
Sediment	Coarse	Subs	Soil						Water	Other												
	Fine	SPES																				
Sampler KBEM/LV/SM		PWSID #		Total # of Containers				<table border="1" style="width:100%; text-align: center;"> <tr> <td>1 = HCl</td> <td>6 = HNO3</td> </tr> <tr> <td>2 = H2SO4</td> <td>7 = HClO4</td> </tr> <tr> <td>3 = H2O2</td> <td>8 = H2O2</td> </tr> <tr> <td>4 = Other</td> <td>9 = Other</td> </tr> </table>					1 = HCl	6 = HNO3	2 = H2SO4	7 = HClO4	3 = H2O2	8 = H2O2	4 = Other	9 = Other	SCR #	
1 = HCl	6 = HNO3																					
2 = H2SO4	7 = HClO4																					
3 = H2O2	8 = H2O2																					
4 = Other	9 = Other																					
State where samples were collected: ME		Fed Compliance: Yes No		<table border="1" style="width:100%; text-align: center;"> <tr> <td>Fig. 150's</td> <td>cap tubes, 750uL/Frozen</td> </tr> </table>				Fig. 150's	cap tubes, 750uL/Frozen	<table border="1" style="width:100%; text-align: center;"> <tr> <td>Remarks</td> </tr> </table>					Remarks							
Fig. 150's	cap tubes, 750uL/Frozen																					
Remarks																						
Collection		Grab Composite		Soil		Water		Other		Total # of Containers												
Sample Identification		Date	Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Fig. 150's	cap tubes, 750uL/Frozen	Remarks										
1 MMSE-1_17MNC03_062117_NSS_01_BL		6/21/2017	700	Grab				X	1	3		MS/MD										
2 MMSE-1_17MNC03_062117_NSS_02_BL		6/21/2017	0720	Grab				X	1	3												
3 MMSE-1_17MNC07_062117_NSS_03_BI		6/21/2017	0920	Grab				X	1	3												
4 MMSE-1_17MNO11_062117_NSS_04_BL		6/21/2017	0950	Grab				X	1	3												
5 MMSE-1_17MNO10_062117_NSS_05_GL		6/21/2017	1000	Grab				X	1	3												
6 MMSE-1_17MNO10_062117_NSS_06_GL		6/21/2017	1015	Grab				X	1	3												
7 MMSE-1_17MNO01_062117_NSS_07_GL		6/21/2017	1030	Grab				X	1	3												
8 MMSE-1_17MNO02_062117_NSS_08_GL		6/21/2017	1035	Grab				X	1	3												
9 MMSE-1_17MNO02_062117_NSS_09_GL		6/21/2017	1040	Grab				X	1	3												
10 MMSE-1_17MNO10_062117_NSS_10_BI		6/21/2017	1045	Grab				X	1	3												
11 MMSE-1_17MNO11_062217_NSS_11_GL		6/22/2017	0820	Grab				X	1	3												
12 MMSE-1_17MNO11_062217_NSS_12_GL		6/22/2017	0820	Grab				X	1	3												
13 MMSE-1_17MNO18_062217_NSS_13_GL		6/22/2017	0900	Grab				X	1	3												
14 MMSE-1_17MNO11_062217_NSS_14_BI		6/22/2017	1000	Grab				X	1	3												
15 MMSE-1_17MNO18_062217_NSS_15_GL		6/22/2017	1100	Grab				X	1	3												
16 MMSE-1_17MNO03_062117_NSS_01_GL_MS		6/21/2017	0700	Grab				X	1	3		Use extra volume from sample 01										
17 MMSE-1_17MNO03_062117_NSS_01_GL_MD		6/21/2017	0700	Grab				X	1	3		Use extra volume from sample 01										
KCB																						
Turnaround Time Requested (TAT) (please check):				Standard		Rush		Relinquished by:		Date		Time		Received by:		Date		Time				
(Rush TAT is subject to laboratory approval and surcharges)								KCB		6-29-17		1600		LWS		6/30/17		9:50				
Notes:				FedEx # 0164 2664 2029		# of Coolers		Relinquished by:		Date		Time		Received by:		Date		Time				
Sample disposal - Hold Equipment: Blanks 1-4 and 130 days after delivery of report Report and EDD to: denise.king@amecfw.com / 978-662-6633								Relinquished by:		Date		Time		Received by:		Date		Time				
Data Package Options (please check if required):				High		Standard		Relinquished by:		Date		Time		Received by:		Date		Time				
EDD Required? Yes No				If yes, format:		UPS		FedEx X		Other		Temperature upon receipt		-33.8								

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Seal intact



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

MMSE-1_17MN003_062117_NSS_01_BL
1706935-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	2350	9.45	84.4	ng/g	400	F707329	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	
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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

**MMSE-1_17MN009_062117_NSS_02_BL
1706935-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2810	8.27	73.8	ng/g	1000	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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AMEC Foster Wheeler
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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

MMSE-1_17MN007_062117_NSS_03_BL
1706935-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	3110	9.83	87.8	ng/g	1000	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	



AMEC Foster Wheeler
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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

MMSE-1_17MN011_062117_NSS_04_BL
1706935-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2200	17.1	152	ng/g	1000	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

**MMSE-1_17MN010_062117_NSS_05_BL
1706935-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2860	9.31	83.1	ng/g	1000	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
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**MMSE-1_17MN010_062117_NSS_06_BL
1706935-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	1620	48.7	435	ng/g	1000	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
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**MMSE-1_17MN001_062117_NSS_07_BL
1706935-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2070	19.1	170	ng/g	1000	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
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**MMSE-1_17MN002_062117_NSS_08_BL
1706935-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	1570	4.21	37.6	ng/g	400	F707329	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
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MMSE-1_17MN002_062117_NSS_09_BL
1706935-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	1820	7.58	67.7	ng/g	400	F707329	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
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MMSE-1_17MN010_062117_NSS_10_BL
1706935-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	1290	12.1	108	ng/g	400	F707329	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

MMSE-1_17MN011_062217_NSS_11_BL
1706935-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	1940	4.97	44.3	ng/g	400	F707329	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
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MMSE-1_17MN011_062217_NSS_12_BL
1706935-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	1810	5.78	51.6	ng/g	400	F707329	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

MMSE-1_17MN018_062217_NSS_13_BL
1706935-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2670	5.83	52.0	ng/g	400	F707329	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

MMSE-1_17MN011_062217_NSS_14_BL
1706935-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	3020	6.69	59.7	ng/g	400	F707329	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

**MMSE-1_17MN018_062217_NSS_15_BL
1706935-15**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2340	5.61	50.1	ng/g	400	F707329	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7G14006 - F707327											
Cal Standard (7G14006-CAL1)					Prepared & Analyzed: 13-Jul-17						
Mercury	0.563	-		ng/L	0.50100		112				
Cal Standard (7G14006-CAL2)					Prepared & Analyzed: 13-Jul-17						
Mercury	1.054	-		ng/L	1.0020		105				
Cal Standard (7G14006-CAL3)					Prepared & Analyzed: 13-Jul-17						
Mercury	4.787	-		ng/L	5.0100		95.5				
Cal Standard (7G14006-CAL4)					Prepared & Analyzed: 13-Jul-17						
Mercury	18.52	-		ng/L	20.040		92.4				
Cal Standard (7G14006-CAL5)					Prepared & Analyzed: 13-Jul-17						
Mercury	37.49	-		ng/L	40.080		93.5				
Calibration Blank (7G14006-CCB1)					Prepared & Analyzed: 13-Jul-17						
Mercury	0.006	-		ng/L							
Calibration Blank (7G14006-CCB2)					Prepared & Analyzed: 13-Jul-17						
Mercury	0.012	-		ng/L							
Calibration Blank (7G14006-CCB3)					Prepared & Analyzed: 13-Jul-17						
Mercury	0.031	-		ng/L							
Calibration Blank (7G14006-CCB4)					Prepared & Analyzed: 13-Jul-17						
Mercury	0.025	-		ng/L							
Calibration Blank (7G14006-CCB5)					Prepared & Analyzed: 13-Jul-17						
Mercury	0.084	-		ng/L							

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7G14006 - F707327

Calibration Blank (7G14006-CCB6)				Prepared & Analyzed: 13-Jul-17							
Mercury	0.076	-		ng/L							
Calibration Blank (7G14006-CCB7)				Prepared & Analyzed: 13-Jul-17							
Mercury	0.080	-		ng/L							
Calibration Blank (7G14006-CCB8)				Prepared & Analyzed: 13-Jul-17							
Mercury	0.066	-		ng/L							
Calibration Blank (7G14006-CCB9)				Prepared & Analyzed: 13-Jul-17							
Mercury	0.049	-		ng/L							
Calibration Blank (7G14006-CCBA)				Prepared & Analyzed: 13-Jul-17							
Mercury	0.071	-		ng/L							
Calibration Check (7G14006-CCV1)				Prepared & Analyzed: 13-Jul-17							
Mercury	4.815	-		ng/L	5.0000		96.3	77-123			
Calibration Check (7G14006-CCV2)				Prepared & Analyzed: 13-Jul-17							
Mercury	4.822	-		ng/L	5.0000		96.4	77-123			
Calibration Check (7G14006-CCV3)				Prepared & Analyzed: 13-Jul-17							
Mercury	4.819	-		ng/L	5.0000		96.4	77-123			
Calibration Check (7G14006-CCV4)				Prepared & Analyzed: 13-Jul-17							
Mercury	4.734	-		ng/L	5.0000		94.7	77-123			
Calibration Check (7G14006-CCV5)				Prepared & Analyzed: 13-Jul-17							
Mercury	4.863	-		ng/L	5.0000		97.3	77-123			

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7G14006 - F707327

Calibration Check (7G14006-CCV6)												Prepared & Analyzed: 13-Jul-17
Mercury	4.971	-		ng/L	5.0000		99.4	77-123				
Calibration Check (7G14006-CCV7)												Prepared & Analyzed: 13-Jul-17
Mercury	4.950	-		ng/L	5.0000		99.0	77-123				
Calibration Check (7G14006-CCV8)												Prepared & Analyzed: 13-Jul-17
Mercury	4.907	-		ng/L	5.0000		98.1	77-123				
Calibration Check (7G14006-CCV9)												Prepared & Analyzed: 13-Jul-17
Mercury	4.918	-		ng/L	5.0000		98.4	77-123				
Calibration Check (7G14006-CCVA)												Prepared & Analyzed: 13-Jul-17
Mercury	4.905	-		ng/L	5.0000		98.1	77-123				
Instrument Blank (7G14006-IBL1)												Prepared & Analyzed: 13-Jul-17
Mercury	ND	0.004	0.040	ng/L							U	
Instrument Blank (7G14006-IBL2)												Prepared & Analyzed: 13-Jul-17
Mercury	ND	0.004	0.040	ng/L							U	
Instrument Blank (7G14006-IBL3)												Prepared & Analyzed: 13-Jul-17
Mercury	ND	0.004	0.040	ng/L							U	
Initial Cal Check (7G14006-ICV1)												Prepared & Analyzed: 13-Jul-17
Mercury	4.939	-		ng/L	5.0000		98.8	79-121				

Batch 7G18008 - F707329

Cal Standard (7G18008-CAL1)												Prepared & Analyzed: 17-Jul-17
Mercury	0.535	-		ng/L	0.50100		107					

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7G18008 - F707329

Cal Standard (7G18008-CAL2)						Prepared & Analyzed: 17-Jul-17					
Mercury	1.039	-		ng/L	1.0020		104				
Cal Standard (7G18008-CAL3)						Prepared & Analyzed: 17-Jul-17					
Mercury	4.926	-		ng/L	5.0100		98.3				
Cal Standard (7G18008-CAL4)						Prepared & Analyzed: 17-Jul-17					
Mercury	18.90	-		ng/L	20.040		94.3				
Cal Standard (7G18008-CAL5)						Prepared & Analyzed: 17-Jul-17					
Mercury	38.47	-		ng/L	40.080		96.0				
Calibration Blank (7G18008-CCB1)						Prepared & Analyzed: 17-Jul-17					
Mercury	0.186	-		ng/L							
Calibration Blank (7G18008-CCB2)						Prepared & Analyzed: 17-Jul-17					
Mercury	0.272	-		ng/L							
Calibration Blank (7G18008-CCB3)						Prepared & Analyzed: 17-Jul-17					
Mercury	0.297	-		ng/L							
Calibration Blank (7G18008-CCB4)						Prepared & Analyzed: 17-Jul-17					
Mercury	0.259	-		ng/L							
Calibration Blank (7G18008-CCB5)						Prepared & Analyzed: 17-Jul-17					
Mercury	0.246	-		ng/L							
Calibration Blank (7G18008-CCB7)						Prepared & Analyzed: 17-Jul-17					
Mercury	0.225	-		ng/L							

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Project Manager: Denise King

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7G18008 - F707329

Calibration Blank (7G18008-CCB8)											
Prepared & Analyzed: 17-Jul-17											
Mercury	0.198	-		ng/L							
Calibration Blank (7G18008-CCB9)											
Prepared & Analyzed: 17-Jul-17											
Mercury	0.321	-		ng/L							
Calibration Blank (7G18008-CCBA)											
Prepared & Analyzed: 17-Jul-17											
Mercury	0.448	-		ng/L							
Calibration Check (7G18008-CCV1)											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.232	-		ng/L	5.0000		105	77-123			
Calibration Check (7G18008-CCV2)											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.496	-		ng/L	5.0000		110	77-123			
Calibration Check (7G18008-CCV3)											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.643	-		ng/L	5.0000		113	77-123			
Calibration Check (7G18008-CCV4)											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.390	-		ng/L	5.0000		108	77-123			
Calibration Check (7G18008-CCV5)											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.377	-		ng/L	5.0000		108	77-123			
Calibration Check (7G18008-CCV7)											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.202	-		ng/L	5.0000		104	77-123			
Calibration Check (7G18008-CCV8)											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.136	-		ng/L	5.0000		103	77-123			

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7G18008 - F707329											
Calibration Check (7G18008-CCV9)					Prepared & Analyzed: 17-Jul-17						
Mercury	5.494	-		ng/L	5.0000		110	77-123			
Calibration Check (7G18008-CCVA)					Prepared & Analyzed: 17-Jul-17						
Mercury	5.685	-		ng/L	5.0000		114	77-123			
Instrument Blank (7G18008-IBL1)					Prepared & Analyzed: 17-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7G18008-IBL2)					Prepared & Analyzed: 17-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7G18008-IBL3)					Prepared & Analyzed: 17-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7G18008-ICV1)					Prepared & Analyzed: 17-Jul-17						
Mercury	5.266	-		ng/L	5.0000		105	79-121			
Batch F707328 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F707328-BLK1)					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	0.111	0.090	0.800	ng/g							J
Blank (F707328-BLK2)					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.090	0.800	ng/g							U
Blank (F707328-BLK3)					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.090	0.800	ng/g							U

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	Reported: 20-Jul-17 14:11
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F707328 - EFGS-011 Nitric/Sulfuric Hg Digestion

LCS (F707328-BS1)					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	7.456	0.090	0.800	ng/g	8.0160		93.0	75-125			
LCS Dup (F707328-BSD1)					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	7.378	0.090	0.800	ng/g	8.0160		92.0	75-125	1.05	24	
Duplicate (F707328-DUP2)					Source: 1706933-05RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	1435	5.05	45.0	ng/g		1413			1.60	24	AD
Matrix Spike (F707328-MS1)					Source: 1706933-06RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	3456	7.80	69.7	ng/g	1745.6	2019	82.3	71-125			
Matrix Spike (F707328-MS2)					Source: 1706934-01 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	1633	7.08	63.2	ng/g	1582.9	164.7	92.8	71-125			
Matrix Spike Dup (F707328-MSD1)					Source: 1706933-06RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	3193	6.88	61.4	ng/g	1539.2	2019	76.2	71-125	7.70	24	
Matrix Spike Dup (F707328-MSD2)					Source: 1706934-01 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	1124	4.61	41.2	ng/g	1031.9	164.7	93.0	71-125	0.187	24	

Batch F707329 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F707329-BLK1)					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	0.335	0.090	0.800	ng/g							J
Blank (F707329-BLK2)					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	0.182	0.090	0.800	ng/g							J

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:11

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F707329 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F707329-BLK3)											
					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	0.176	0.090	0.800	ng/g							J
LCS (F707329-BS1)											
					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	7.541	0.090	0.800	ng/g	8.0160		94.1	75-125			
LCS Dup (F707329-BSD1)											
					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	7.525	0.090	0.800	ng/g	8.0160		93.9	75-125	0.212	24	
Duplicate (F707329-DUP1)											
					Source: 1706936-03RE1		Prepared: 12-Jul-17 Analyzed: 17-Jul-17				
Mercury	4115	9.47	84.6	ng/g		6169			39.9	24	QR-07
Duplicate (F707329-DUP2)											
					Source: 1706936-03RE1		Prepared: 12-Jul-17 Analyzed: 17-Jul-17				
Mercury	4868	15.8	141	ng/g		6169			23.6	24	AD
Matrix Spike (F707329-MS1)											
					Source: 1706935-01		Prepared: 12-Jul-17 Analyzed: 17-Jul-17				
Mercury	4508	9.87	88.1	ng/g	2207.0	2346	97.9	71-125			
Matrix Spike (F707329-MS2)											
					Source: 1706936-04RE1		Prepared: 12-Jul-17 Analyzed: 17-Jul-17				
Mercury	4259	9.26	82.6	ng/g	2070.2	2683	76.2	71-125			
Matrix Spike Dup (F707329-MSD1)											
					Source: 1706935-01		Prepared: 12-Jul-17 Analyzed: 17-Jul-17				
Mercury	10270	29.5	263	ng/g	6592.1	2346	120	71-125	20.4	24	
Matrix Spike Dup (F707329-MSD2)											
					Source: 1706936-04RE1		Prepared: 12-Jul-17 Analyzed: 17-Jul-17				
Mercury	6096	13.5	120	ng/g	3009.0	2683	113	71-125	39.3	24	QR-08

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AMEC Foster Wheeler
 271 Mill Road
 Chelmsford MA, 01824

Project: 2017 Penobscot Biota
 Project Number: 2017 Penobscot Biota
 Project Manager: Denise King

Reported:
 20-Jul-17 14:11

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-08 The RPD value for the MS/MSD was outside of acceptance limits. Batch QC acceptable based on matrix duplicate and/or LCS/LCSD RPD values within control limits.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- J The result is an estimated concentration.
- E-01 Sample was preceded by a sample exceeding the calibration curve and was reanalyzed for confirmation.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- AS This MS and/or MSD is an analytical spike and/or an analytical spike duplicate.
- AD This matrix duplicate is an analytical duplicate.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Analysis Datasheet for Total Mercury

Date of Analysis: July 13, 2017
 Instrument #: Hg2600-3
 LTMS Sequence #: 7G14006, 7G14007

Analyst: DM2
 Units: ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	57.40 units	114.79	55.84 units	111.69	112.5 %Rec
SEQ-CAL2	1	1.00 ng/L	106.23 units	106.23	104.68 units	104.68	105.4 %Rec
SEQ-CAL3	1	5.00 ng/L	476.73 units	95.35	475.17 units	95.03	95.7 %Rec
SEQ-CAL4	1	20.00 ng/L	1839.98 units	92.00	1838.43 units	91.92	92.6 %Rec
SEQ-CAL5	1	40.00 ng/L	3722.97 units	93.07	3721.41 units	93.04	93.7 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF: 99.27 Corr. St Dev RF: +/- 8.58 Corr. RSD CF: 8.6% RSD Uncorr. Mean RF: 100.29

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IDL	3	1.55 units	±1.47	0.02 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.233 ng/L	±0.786
BLK	2	3	1.014 ng/L	±0.362
BLK	3	9	0.024 ng/L	±0.021
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER-REVIEWED
 INITIALS: BC 7/14/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber							Correction?	RESP					
Hg2600-3	DM2	CAL	SEQ-IBL1	1	7/13/2017 7:19:31	70920-1.RAW	7:19:31 AM	0.00				-1.6	-0.016	-0.016	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	7/13/2017 7:23:38	70921-1.RAW	7:23:38 AM	1.74				0.2	0.002	0.002	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	7/13/2017 7:27:48	70922-1.RAW	7:27:48 AM	2.92				1.4	0.014	0.014	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	7/13/2017 7:31:56	70923-1.RAW	7:31:56 AM	57.40				55.3	0.563	0.563	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	7/13/2017 7:36:04	70924-1.RAW	7:36:04 AM	105.23				104.7	1.054	1.054	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	7/13/2017 7:40:13	70925-1.RAW	7:40:13 AM	476.73				475.2	4.787	4.787	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	7/13/2017 7:44:27	70926-1.RAW	7:44:21 AM	1839.98				1838.4	18.519	18.519	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	7/13/2017 7:48:30	70927-1.RAW	7:48:30 AM	3722.97				3721.4	37.487	37.487	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	7/13/2017 7:52:38	70928-1.RAW	7:52:36 AM	491.90				490.4	4.939	4.939	ng/L	
Hg2600-3	DM2	BLK	F707327-BLK1	20	7/13/2017 7:56:46	70929-1.RAW	7:56:46 AM	7.05	1			6.3	0.063	1.269	ng/L	
Hg2600-3	DM2	BLK	F707327-BLK2	20	7/13/2017 8:00:55	70930-1.RAW	8:00:55 AM	3.69	1			2.1	0.022	0.430	ng/L	
Hg2600-3	DM2	BLK	F707327-BLK3	20	7/13/2017 8:05:03	70931-1.RAW	8:05:03 AM	11.40	1			9.9	0.100	2.001	ng/L	
Hg2600-3	DM2	SAM	F707327-BS1	20	7/13/2017 8:09:12	70932-1.RAW	8:09:12 AM	472.03	1			470.5	4.676	93.552	ng/L	
Hg2600-3	DM2	SAM	1706930-04	100	7/13/2017 8:13:20	70933-1.RAW	8:13:20 AM	470.19	1			468.5	4.659	93.182	ng/L	
Hg2600-3	DM2	SAM	1706930-05	100	7/13/2017 8:17:29	70934-1.RAW	8:17:29 AM	89.96	1			38.4	0.375	37.458	ng/L	
Hg2600-3	DM2	SAM	1706930-06	100	7/13/2017 8:21:37	70935-1.RAW	8:21:37 AM	250.26	1			238.7	2.896	289.591	ng/L	
Hg2600-3	DM2	SAM	1706930-07	100	7/13/2017 8:25:45	70936-1.RAW	8:25:45 AM	6971.14	1			6669.6	67.173	6717.274	ng/L	
Hg2600-3	DM2	SAM	1706930-08	100	7/13/2017 8:29:54	70937-1.RAW	8:29:54 AM	521.29	1			519.7	5.223	522.313	ng/L	
Hg2600-3	DM2	SAM	1706930-09	100	7/13/2017 8:34:02	70938-1.RAW	8:34:02 AM	169.92	1			168.4	1.684	168.369	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	7/13/2017 8:38:11	70939-1.RAW	8:38:11 AM	479.55				478.0	4.815	4.815	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	7/13/2017 8:42:19	70940-1.RAW	8:42:19 AM	2.15				0.5	0.006	0.006	ng/L	
Hg2600-3	DM2	SAM	1706931-06	400	7/13/2017 8:46:28	70941-1.RAW	8:46:28 AM	1283.01	1			1281.5	12.906	5162.205	ng/L	
Hg2600-3	DM2	SAM	1706931-07	400	7/13/2017 8:50:36	70942-1.RAW	8:50:35 AM	971.19	1			969.5	9.764	3905.768	ng/L	
Hg2600-3	DM2	SAM	1706931-08	400	7/13/2017 8:54:44	70943-1.RAW	8:54:44 AM	1035.97	1			1034.4	10.417	4160.799	ng/L	
Hg2600-3	DM2	SAM	1706932-01	20	7/13/2017 8:58:53	70944-1.RAW	8:58:53 AM	106.42	1			104.9	0.995	19.894	ng/L	
Hg2600-3	DM2	SAM	1706932-02	20	7/13/2017 9:03:01	70945-1.RAW	9:03:01 AM	747.39	1			746.4	7.457	149.148	ng/L	
Hg2600-3	DM2	SAM	1706932-03	20	7/13/2017 9:07:10	70946-1.RAW	9:07:10 AM	2436.08	1			2434.5	24.491	569.829	ng/L	
Hg2600-3	DM2	SAM	1706932-04	20	7/13/2017 9:11:18	70947-1.RAW	9:11:18 AM	1896.09	1			1854.5	18.620	372.394	ng/L	
Hg2600-3	DM2	SAM	1706932-05	400	7/13/2017 9:15:26	70948-1.RAW	9:15:26 AM	177.60	1			176.3	1.714	34.775	ng/L	
Hg2600-3	DM2	SAM	1706932-06	400	7/13/2017 9:19:35	70949-1.RAW	9:19:35 AM	139.50	1			137.9	1.385	554.595	ng/L	
Hg2600-3	DM2	SAM	1706932-09	400	7/13/2017 9:23:43	70950-1.RAW	9:23:43 AM	187.81	1			186.3	1.873	749.365	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	7/13/2017 9:27:52	70951-1.RAW	9:27:52 AM	480.28				478.7	4.822	4.822	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	7/13/2017 9:32:00	70952-1.RAW	9:32:00 AM	2.76				1.2	0.012	0.012	ng/L	
Hg2600-3	DM2	SAM	1706933-10	100	7/13/2017 9:36:08	70953-1.RAW	9:36:08 AM	701.78	1			700.2	7.041	704.125	ng/L	
Hg2600-3	DM2	SAM	1706933-01	100	7/13/2017 9:40:16	70954-1.RAW	9:40:16 AM	4312.33	1			4310.8	43.612	4341.163	ng/L	
Hg2600-3	DM2	SAM	1706933-02	100	7/13/2017 9:44:24	70955-1.RAW	9:44:24 AM	830.71	1			829.2	8.340	834.010	ng/L	
Hg2600-3	DM2	SAM	1706933-03	100	7/13/2017 9:48:32	70956-1.RAW	9:48:32 AM	3737.77	1			3736.2	37.926	3792.612	ng/L	
Hg2600-3	DM2	SAM	1706933-04	20	7/13/2017 10:00:14	70957-1.RAW	10:00:14 AM	210.33	1			208.8	2.041	40.828	ng/L	
Hg2600-3	DM2	SAM	1706933-07	100	7/13/2017 10:04:23	70958-1.RAW	10:04:23 AM	1704.29	1			1702.7	17.149	6859.653	ng/L	
Hg2600-3	DM2	SAM	1706933-08	100	7/13/2017 10:08:31	70959-1.RAW	10:08:31 AM	512.92	1			511.4	5.139	513.882	ng/L	
Hg2600-3	DM2	SAM	1706933-09	20	7/13/2017 10:12:40	70960-1.RAW	10:12:40 AM	743.93	1			742.4	7.467	149.339	ng/L	
Hg2600-3	DM2	SAM	F707327-DUP1	20	7/13/2017 10:16:48	70961-1.RAW	10:16:48 AM	172.14	1			170.6	11.730	234.601	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	7/13/2017 10:20:58	70962-1.RAW	10:20:58 AM	1107.45	1			1105.9	11.137	4454.784	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	7/13/2017 10:25:05	70963-1.RAW	10:25:05 AM	479.95				478.4	4.819	4.819	ng/L	
Hg2600-3	DM2	SAM	F707327-MSD1	400	7/13/2017 10:29:13	70964-1.RAW	10:29:13 AM	4.60				3.0	0.031	0.031	ng/L	
Hg2600-3	DM2	SAM	F707327-MS2	400	7/13/2017 10:33:22	70965-1.RAW	10:33:22 AM	1129.52	1			1128.0	11.359	4543.725	ng/L	
Hg2600-3	DM2	SAM	F707327-MSD2	400	7/13/2017 10:37:30	70966-1.RAW	10:37:30 AM	1098.92	1			1067.4	10.749	4299.532	ng/L	
Hg2600-3	DM2	SAM	1706933-01	400	7/13/2017 10:41:38	70967-1.RAW	10:41:38 AM	1008.09	1			1005.5	10.136	4054.460	ng/L	
Hg2600-3	DM2	SAM	1706933-02	400	7/13/2017 10:45:47	70968-1.RAW	10:45:47 AM	1077.44	1			1075.9	10.835	4333.889	ng/L	
Hg2600-3	DM2	SAM	1706933-03	100	7/13/2017 10:49:55	70969-1.RAW	10:49:55 AM	791.78	1			790.2	7.948	794.793	ng/L	
Hg2600-3	DM2	BLK	F707328-BLK1	20	7/13/2017 10:54:04	70970-1.RAW	10:54:04 AM	8.45	2			6.9	0.070	1.390	ng/L	
Hg2600-3	DM2	BLK	F707328-BLK2	20	7/13/2017 10:58:12	70971-1.RAW	10:58:12 AM	6.43	2			4.9	0.049	0.083	ng/L	
Hg2600-3	DM2	BLK	F707328-BLK3	20	7/13/2017 11:02:21	70972-1.RAW	11:02:21 AM	4.87	2			3.3	0.033	0.658	ng/L	
Hg2600-3	DM2	SAM	F707328-BS1	20	7/13/2017 11:06:29	70973-1.RAW	11:06:29 AM	189.21	2			167.7	4.660	93.204	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	7/13/2017 11:10:37	70974-1.RAW	11:10:37 AM	454.35	2			462.8	4.611	92.227	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	7/13/2017 11:14:46	70975-1.RAW	11:14:46 AM	471.57	2			470.0	4.734	4.734	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCS4	1	7/13/2017 11:18:54	70976-1.RAW	11:18:54 AM	4.03				2.5	0.025	0.025	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hg2600-3	DM2	SAM	F707327-DUP2	20	7/13/2017 11:23:03	70977-1.RAW	11:23:03 AM	738.49	1			736.9	7.362	147.233	ng/L
Hg2600-3	DM2	SAM	1706933-04	100	7/13/2017 11:27:11	70978-1.RAW	11:27:11 AM	11620.28	2			12618.7	117.029	11702.933	ng/L
Hg2600-3	DM2	SAM	1706933-05	100	7/13/2017 11:31:19	70979-1.RAW	11:31:19 AM	6194.72	2			6153.2	61.973	6197.288	ng/L
Hg2600-3	DM2	SAM	1706933-06	100	7/13/2017 11:35:28	70980-1.RAW	11:35:28 AM	8102.11	2			8100.6	81.443	8144.288	ng/L
Hg2600-3	DM2	SAM	1706933-07	100	7/13/2017 11:39:36	70981-1.RAW	11:39:36 AM	8410.23	2			8408.7	84.593	8469.340	ng/L
Hg2600-3	DM2	SAM	1706933-08	100	7/13/2017 11:43:45	70982-1.RAW	11:43:45 AM	4569.00	2			4598.3	46.311	4631.058	ng/L
Hg2600-3	DM2	SAM	1706933-09	100	7/13/2017 11:47:53	70983-1.RAW	11:47:53 AM	3983.66	2			3952.0	39.800	3980.010	ng/L
Hg2600-3	DM2	SAM	1706933-10	100	7/13/2017 11:52:02	70984-1.RAW	11:52:02 AM	12154.5	2			12154.5	122.428	12242.772	ng/L
Hg2600-3	DM2	SAM	1706933-11	100	7/13/2017 11:56:10	70985-1.RAW	11:56:10 AM	9498.92	2			9498.4	95.670	9557.018	ng/L
Hg2600-3	DM2	SAM	clean		7/13/2017 11:58:01	70988-1.RAW	11:58:01 AM	11.12	X			9.6	0.096	0.000	ng/L
Hg2600-3	DM2	SAM	ws		7/13/2017 12:03:10	70987-1.RAW	12:03:10 PM	2158274219	X			20.0	0.202	0.000	ng/L
Hg2600-3	DM2	SAM	1706933-12	100	7/13/2017 12:07:18	70988-1.RAW	12:07:18 PM	21279.50	2			21277.9	218.330	21432.998	ng/L
Hg2600-3	DM2	SAM	clean		7/13/2017 12:10:10	70989-1.RAW	12:10:10 PM	17.01	X			15.5	0.156	0.000	ng/L
Hg2600-3	DM2	SAM	ws		7/13/2017 12:14:18	70990-1.RAW	12:14:18 PM	28.78	X			27.2	0.274	0.000	ng/L
Hg2600-3	DM2	SAM	ws		7/13/2017 12:18:26	70991-1.RAW	12:18:26 PM	11.39	X			9.8	0.099	0.000	ng/L
Hg2600-3	DM2	CAL	SEQ-CCV5	1	7/13/2017 12:22:35	70992-1.RAW	12:22:35 PM	484.20				482.7	4.863	4.853	ng/L
Hg2600-3	DM2	SAM	1706934-01	400	7/13/2017 12:26:43	70993-1.RAW	12:26:43 PM	9.94				8.4	0.084	0.034	ng/L
Hg2600-3	DM2	SAM	1706935-02	400	7/13/2017 12:30:52	70994-1.RAW	12:30:52 PM	136.68	2			135.1	1.359	543.411	ng/L
Hg2600-3	DM2	SAM	1706933-04RE1	400	7/13/2017 12:35:03	70995-1.RAW	12:35:00 PM	4525.60	2			4524.0	45.570	18227.892	ng/L
Hg2600-3	DM2	SAM	1706933-05RE1	400	7/13/2017 12:39:08	70996-1.RAW	12:39:08 PM	2918.73	2			2916.7	29.378	11751.275	ng/L
Hg2600-3	DM2	SAM	1706933-05RE1	400	7/13/2017 12:43:17	70997-1.RAW	12:43:17 PM	1558.48	2			1556.9	15.681	6272.376	ng/L
Hg2600-3	DM2	SAM	1706933-07RE1	400	7/13/2017 12:47:25	70998-1.RAW	12:47:25 PM	1547.71	2			1546.2	15.572	6228.951	ng/L
Hg2600-3	DM2	SAM	1706933-08RE1	400	7/13/2017 12:51:34	70999-1.RAW	12:51:34 PM	2093.24	2			2091.7	21.068	8427.110	ng/L
Hg2600-3	DM2	SAM	1706933-09RE1	400	7/13/2017 12:55:42	71000-1.RAW	12:55:42 PM	1124.58	2			1123.0	11.310	4524.040	ng/L
Hg2600-3	DM2	SAM	1706933-10RE1	400	7/13/2017 12:59:51	71001-1.RAW	12:59:51 PM	1093.64	2			1092.1	10.998	4399.360	ng/L
Hg2600-3	DM2	SAM	1706933-11RE1	400	7/13/2017 1:03:59	71002-1.RAW	1:03:59 PM	3122.98	2			3121.4	31.441	12576.284	ng/L
Hg2600-3	DM2	CAL	SEQ-CCV6	1	7/13/2017 1:08:07	71003-1.RAW	1:08:07 PM	2463.14	2			2461.6	24.794	9917.567	ng/L
Hg2600-3	DM2	CAL	SEQ-CCB6	1	7/13/2017 1:12:15	71004-1.RAW	1:12:16 PM	495.05				493.5	4.971	4.971	ng/L
Hg2600-3	DM2	SAM	1706933-12RE1	1000	7/13/2017 1:16:24	71005-1.RAW	1:16:24 PM	9.05				7.5	0.076	0.075	ng/L
Hg2600-3	DM2	SAM	1706935-02RE1	1000	7/13/2017 1:20:33	71006-1.RAW	1:20:33 PM	2259.21	2			2257.7	22.741	22741.128	ng/L
Hg2600-3	DM2	SAM	1706935-02RE1	1000	7/13/2017 1:24:41	71007-1.RAW	1:24:41 PM	1890.71	2			1889.2	19.029	15029.144	ng/L
Hg2600-3	DM2	SAM	1706934-02	400	7/13/2017 1:28:49	71008-1.RAW	1:28:49 PM	3026.77	2			3025.2	30.472	12188.618	ng/L
Hg2600-3	DM2	SAM	1706934-03	400	7/13/2017 1:32:58	71009-1.RAW	1:32:58 PM	5988.68	2			5987.1	60.308	24123.132	ng/L
Hg2600-3	DM2	SAM	1706934-04	400	7/13/2017 1:37:06	71010-1.RAW	1:37:06 PM	1691.15	2			1689.6	17.017	6805.944	ng/L
Hg2600-3	DM2	SAM	1706934-05	400	7/13/2017 1:41:15	71011-1.RAW	1:41:15 PM	872.65	2			871.1	8.772	3508.924	ng/L
Hg2600-3	DM2	SAM	1706934-05	400	7/13/2017 1:45:23	71012-1.RAW	1:45:23 PM	2685.16	2			2683.6	27.030	10812.155	ng/L
Hg2600-3	DM2	SAM	1706935-04	1000	7/13/2017 1:49:32	71013-1.RAW	1:49:32 PM	1759.68	2			1758.1	17.709	17709.192	ng/L
Hg2600-3	DM2	SAM	1706935-05	1000	7/13/2017 1:53:40	71014-1.RAW	1:53:40 PM	716.57	2			715.0	7.202	7201.630	ng/L
Hg2600-3	DM2	CAL	SEQ-CCV7	1	7/13/2017 1:57:48	71015-1.RAW	1:57:48 PM	1710.37	2			1708.8	17.212	17212.461	ng/L
Hg2600-3	DM2	CAL	SEQ-CCB7	1	7/13/2017 2:01:57	71016-1.RAW	2:01:57 PM	492.99				491.4	4.950	4.950	ng/L
Hg2600-3	DM2	SAM	1706935-06	1000	7/13/2017 2:06:05	71017-1.RAW	2:06:05 PM	9.48				7.9	0.080	0.080	ng/L
Hg2600-3	DM2	SAM	1706935-07	1000	7/13/2017 2:10:14	71018-1.RAW	2:10:14 PM	186.77	2			185.2	1.865	1854.734	ng/L
Hg2600-3	DM2	SAM	1706934-02RE1	1000	7/13/2017 2:14:22	71019-1.RAW	2:14:22 PM	605.30	2			603.8	6.081	6080.771	ng/L
Hg2600-3	DM2	SAM	1706934-03RE1	400	7/13/2017 2:18:30	71020-1.RAW	2:18:30 PM	2387.39	2			2385.8	24.032	24032.394	ng/L
Hg2600-3	DM2	SAM	F707328-DUPI	400	7/13/2017 2:22:39	71021-1.RAW	2:22:39 PM	1649.88	2			1648.3	16.602	6640.638	ng/L
Hg2600-3	DM2	SAM	F707328-MS1	400	7/13/2017 2:26:47	71022-1.RAW	2:26:47 PM	311.81	2			310.3	3.173	1249.112	ng/L
Hg2600-3	DM2	SAM	F707328-MSD1	400	7/13/2017 2:30:56	71023-1.RAW	2:30:56 PM	2463.75	2			2462.2	24.800	9970.017	ng/L
Hg2600-3	DM2	SAM	F707328-MS2	400	7/13/2017 2:35:04	71024-1.RAW	2:35:04 PM	2580.80	2			2579.3	25.979	10391.661	ng/L
Hg2600-3	DM2	SAM	F707328-MSD2	400	7/13/2017 2:39:13	71025-1.RAW	2:39:13 PM	1784.80	2			1783.2	18.924	5169.611	ng/L
Hg2600-3	DM2	SAM	F707328-DUP2	400	7/13/2017 2:43:22	71026-1.RAW	2:43:22 PM	1356.02	2			1354.5	13.542	5456.606	ng/L
Hg2600-3	DM2	CAL	SEQ-CCV8	1	7/13/2017 2:47:30	71027-1.RAW	2:47:30 PM	1587.57	2			1582.0	15.934	6373.463	ng/L
Hg2600-3	DM2	CAL	SEQ-CCB8	1	7/13/2017 2:51:39	71028-1.RAW	2:51:39 PM	488.70				487.1	4.907	4.907	ng/L
Hg2600-3	DM2	BLK	F70732-BLK1	1	7/13/2017 2:55:47	71029-1.RAW	2:55:47 PM	8.13				6.6	0.066	0.066	ng/L
Hg2600-3	DM2	BLK	F70732-BLK2	1	7/13/2017 3:00:56	71030-1.RAW	2:59:56 PM	2.79	3 X			1.2	0.012	0.012	ng/L
Hg2600-3	DM2	BLK	F70732-BLK3	1	7/13/2017 3:04:04	71031-1.RAW	3:04:04 PM	3.45	3 X			1.9	0.019	0.019	ng/L
Hg2600-3	DM2	BLK	F70732-BLK4	1	7/13/2017 3:08:13	71032-1.RAW	3:08:13 PM	4.30	3 X			2.7	0.028	0.028	ng/L
Hg2600-3	DM2	BLK	F70732-BLK5	1	7/13/2017 3:12:21	71033-1.RAW	3:12:21 PM	3.69	3 X			2.1	0.022	0.022	ng/L
Hg2600-3	DM2	BLK	F70732-BLK6	1	7/13/2017 3:16:30	71034-1.RAW	3:16:30 PM	7.45	3 X			5.9	0.059	0.059	ng/L
Hg2600-3	DM2	BLK	F70732-BLK7	1	7/13/2017 3:20:38	71035-1.RAW	3:20:38 PM	6.14	3 X			4.6	0.046	0.046	ng/L
Hg2600-3	DM2	BLK	F70732-BLK8	1	7/13/2017 3:24:46	71036-1.RAW	3:24:46 PM	3.37	3 X			1.8	0.018	0.018	ng/L
Hg2600-3	DM2	BLK	F70732-BLK9	1	7/13/2017 3:28:55	71037-1.RAW	3:28:55 PM	3.82	3 X			2.3	0.023	0.023	ng/L
Hg2600-3	DM2	SAM	F707322-BS1	1	7/13/2017 3:33:03	71038-1.RAW	3:33:03 PM	0.00	3 X			-1.6	-0.016	-0.016	ng/L
Hg2600-3	DM2	CAL	SEQ-CCV9	1	7/13/2017 3:37:12	71039-1.RAW	3:37:12 PM	1484.14	3 X			1482.6	14.935	14.935	ng/L
Hg2600-3	DM2	CAL	SEQ-CCB9	1	7/13/2017 3:41:20	71040-1.RAW	3:41:20 PM	489.72				488.2	4.918	4.918	ng/L
Hg2600-3	DM2	CAL	SEQ-CCB9	1	7/13/2017 3:45:29	71041-1.RAW	3:45:29 PM	6.45				4.9	0.049	0.049	ng/L

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	DM2	SAM	F707328-MSJ	1000	7/13/2017 15:49:37	71042-1.RAW	3:49:37 PM	2462.84	2		2461.3	24.792	24792.340	ng/L	
Hg2600-3	DM2	SAM	F707328-MSD3	1000	7/13/2017 15:53:45	71043-1.RAW	3:53:45 PM	2460.86	2		2459.3	24.772	24772.415	ng/L	
Hg2600-3	DM2	SAM	F707372-3SD1	1	7/13/2017 15:57:54	71044-1.RAW	3:57:54 PM	1509.32	3 X		1507.8	15.188	15.188	ng/L	
Hg2600-3	DM2	SAM	1706489-06	10	7/13/2017 16:02:02	71045-1.RAW	4:02:02 PM	301.06	3 X		299.5	3.017	30.170	ng/L	
Hg2600-3	DM2	SAM	1707148-01	1	7/13/2017 16:06:11	71046-1.RAW	4:06:11 PM	39.37	3 X		37.8	0.381	0.381	ng/L	
Hg2600-3	DM2	SAM	1707148-02	1	7/13/2017 16:10:19	71047-1.RAW	4:10:19 PM	9.81	3 X		8.3	0.083	0.083	ng/L	
Hg2600-3	DM2	SAM	1707292-01	1	7/13/2017 16:14:23	71048-1.RAW	4:14:23 PM	216.13	3 X		214.6	2.161	2.161	ng/L	
Hg2600-3	DM2	SAM	1707292-02	1	7/13/2017 16:18:36	71049-1.RAW	4:18:36 PM	4.60	3 X		3.0	0.031	0.031	ng/L	
Hg2600-3	DM2	SAM	F707372-DUP1	1	7/13/2017 16:22:44	71050-1.RAW	4:22:44 PM	223.41	3 X		221.9	2.235	2.235	ng/L	
Hg2600-3	DM2	SAM	F707372-MS1	1	7/13/2017 16:26:53	71051-1.RAW	4:26:53 PM	1086.11	3 X		1084.6	10.925	10.925	ng/L	
Hg2600-3	DM2	CAL	SEQ CCVA	1	7/13/2017 19:31:01	71052-1.RAW	4:31:01 PM	488.50			486.9	4.905	4.905	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	7/13/2017 18:35:10	71053-1.RAW	4:35:10 PM	8.64			7.1	0.071	0.071	ng/L	
Hg2600-3	DM2	SAM	F707372-MSD1	1	7/13/2017 18:39:18	71054-1.RAW	4:39:18 PM	1101.19	3	X	1099.6	11.077	11.077	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVB	1	7/13/2017 18:43:26	71055-1.RAW	4:43:26 PM	486.62			485.1	4.886	4.886	ng/L	
Hg2600-3	DM2	CAI	SEQ CCBB	1	7/13/2017 18:47:35	71056-1.RAW	4:47:35 PM	6.95			5.4	0.054	0.054	ng/L	

Total Mercury LPA1631
 Operab DM Blank# 1.5524 Calib Eqn: Conc = (Area-1.552
 Workst Thg2600 CalibFA 99.272 Status: QC Warnings:5/QC F Run Date: 7/13/2017 Blank SD: 1.458961105
 Method ### R: 1 R2: 0.9999 Run Time: 9:39:32 Blank RSD%: 64.61778808
 Descrip Thg26003-170713 J CF SD: 8.577269355
 CF RSD%: 8.640179002

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppb)	MR%	Final Conc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (off)	Flags	RunCount
Clean				0.00	1.83					70815-1.RAW	7:00:05	181.58	Clean	OK	1
Clean										70816-1.RAW	7:02:57	0.00	Clean	NP	1
ws										70817-1.RAW	7:07:05	0.00	Sample	NP	1
ws										70818-1.RAW	7:11:14	0.00	Sample	NP	1
SEQ-JBL1	A1		1							70819-1.RAW	7:15:22	0.00	Sample	NP	1
SEQ-JBL2	A2		1	0.00	0.02					70820-1.RAW	7:19:31	0.00	Sample	NP	1
SEQ-JBL3	A3		1	0.00	0.03					70821-1.RAW	7:23:29	1.74	Sample	OK	1
SEQ-CAL1	A4		1	1.55	0.58			112.61		70822-1.RAW	7:27:48	2.92	Sample	OK	1
SEQ-CAL2	A5		1	1.55	1.05			105.45		70823-1.RAW	7:31:56	57.40	Sample	OK	1
SEQ-CAL3	A6		1	1.55	4.79			95.73		70824-1.RAW	7:38:04	106.23	Sample	OK	1
SEQ-CAL4	A7		1	1.55	18.52			92.60		70825-1.RAW	7:42:13	476.78	Sample	OK	1
SEQ-CAL5	A8		1	1.55	37.49			93.72		70826-1.RAW	7:44:21	1839.98	Sample	OK	1
SEQ-CCV1	A9		1	1.55	4.54			98.76		70827-1.RAW	7:48:30	3722.97	Sample	FB	1
F707327-BLK1	A10		20	1.55	1.27					70828-1.RAW	7:52:38	491.90	Sample	OK	1
F707327-BLK2	A11		20	1.55	0.42					70829-1.RAW	7:56:46	7.85	Sample	OK	1
F707327-BLK3	A12		20	1.55	2.00					70830-1.RAW	8:00:55	3.69	Sample	OK	1
F707327-BSD1	B1		20	1.55	91.78					70831-1.RAW	8:05:03	11.48	Sample	OK	1
F707327-BSD2	B2		20	1.55	94.42					70832-1.RAW	8:09:12	472.03	Sample	OK	1
706930-04	B3		100	1.55	30.09					70833-1.RAW	8:13:20	470.19	Sample	OK	1
706930-05	B4		100	1.55	250.82					70834-1.RAW	8:17:29	39.95	Sample	OK	1
706930-07	B5		100	1.55	6718.51					70835-1.RAW	8:21:37	290.25	Sample	OK	1
706931-03	B6		100	1.55	523.55					70836-1.RAW	8:25:45	8871.14	Sample	FB	1
706931-04	B7		100	1.55	166.80					70837-1.RAW	8:29:54	521.29	Sample	OK	1
SEQ-CCV1	B8		1	1.55	4.32			96.33		70838-1.RAW	8:34:02	109.92	Sample	OK	1
SEQ-CCB1	B9		1	1.55	0.07			0.00		70839-1.RAW	8:38:11	479.55	Sample	OK	1
706931-06	B10		400	1.55	5163.44					70840-1.RAW	8:42:19	2.18	Sample	OK	1
706931-07	B11		400	1.55	3907.03					70841-1.RAW	8:46:28	1283.01	Sample	OK	1
706931-08	B12		400	1.55	4188.03					70842-1.RAW	8:50:36	971.18	Sample	OK	1
706932-01	C1		20	1.55	21.13					70843-1.RAW	8:54:44	1035.97	Sample	OK	1
706932-02	C2		20	1.55	150.38					70844-1.RAW	8:58:53	103.42	Sample	OK	1
706932-03	C3		20	1.55	571.06					70845-1.RAW	9:03:01	747.99	Sample	OK	1
706932-04	C4		20	1.55	373.63					70846-1.RAW	9:07:10	2636.06	Sample	OK	1
706932-05	C5		20	1.55	35.51					70847-1.RAW	9:11:18	1856.09	Sample	OK	1
706932-06	C6		400	1.55	555.83					70848-1.RAW	9:15:26	177.80	Sample	OK	1
706932-09	C7		400	1.55	730.80					70849-1.RAW	9:19:35	139.50	Sample	OK	1
SEQ-CCV2	C8		1	1.55	4.82			96.45		70850-1.RAW	9:23:43	167.34	Sample	OK	1
SEQ-CCB2	C9		1	1.55	0.01			0.00		70851-1.RAW	9:27:52	480.28	Sample	OK	1
706932-10	C10		100	1.55	705.36					70852-1.RAW	9:32:00	2.76	Sample	OK	1
706933-01	C11		100	1.55	4342.40					70853-1.RAW	9:36:08	701.78	Sample	OK	1
706933-02	C12		100	1.55	835.24					70854-1.RAW	9:40:16	4312.53	Sample	OK	1
706933-03	D1		100	1.55	3793.85					70855-1.RAW	9:44:24	300.71	Sample	OK	1
706930-04RE1	D2		20	1.55	42.06					70856-1.RAW	9:48:32	6757.77	Sample	FB	1
706930-07RE1	D3		400	1.55	8860.89					70857-1.RAW	10:00:14	210.33	Sample	OK	1
706931-03RE1	D4		100	1.55	515.12					70858-1.RAW	10:04:23	1704.26	Sample	OK	1
706931-04RE1	D5		20	1.55	150.57					70859-1.RAW	10:08:31	512.92	Sample	OK	1
F707327-DUP1	D6		20	1.55	235.83					70860-1.RAW	10:12:40	748.93	Sample	OK	1
F707327-MS1	D7		400	1.55	4456.02			1881.48		70861-1.RAW	10:16:48	1172.14	Sample	OK	1
SEQ-CCV3	D8		1	1.55	4.62			96.38		70862-1.RAW	10:20:56	1107.45	Sample	OK	1
SEQ-CCB3	D9		1	1.55	0.03			0.00		70863-1.RAW	10:25:05	479.95	Sample	OK	1
F707327-MSU1	D10		400	1.55	4544.86					70864-1.RAW	10:29:13	4.80	Sample	OK	1
F707327-MS2	D11		400	1.55	4930.77			94.58		70865-1.RAW	10:33:22	1129.52	Sample	OK	1
F707327-MSD2	D12		400	1.55	4055.69					70866-1.RAW	10:37:30	1008.92	Sample	OK	1
706933-01RE1	A1		400	1.55	4535.12					70867-1.RAW	10:41:38	1008.09	Sample	OK	1
706933-02RE1	A2		100	1.55	793.03					70868-1.RAW	10:45:47	1077.44	Sample	OK	1
F707328-BLK1	A3		20	1.55	0.36					70869-1.RAW	10:49:55	791.78	Sample	OK	1
F707328-BLK2	A4		20	1.55	0.88					70870-1.RAW	10:54:04	8.45	Sample	OK	1
F707328-BLK3	A5		20	1.55	0.67					70871-1.RAW	10:58:12	6.43	Sample	OK	1
F707328-RS1	A6		20	1.55	94.22					70872-1.RAW	11:02:21	4.67	Sample	OK	1
F707328-BSD1	A7		20	1.55	93.24					70873-1.RAW	11:06:29	439.21	Sample	OK	1
SEQ-CCV4	A8		1	1.55	4.73			94.63		70874-1.RAW	11:10:37	464.36	Sample	OK	1
SEQ-CCB4	A9		1	1.55	0.03			0.00		70875-1.RAW	11:14:45	471.51	Sample	OK	1
										70876-1.RAW	11:18:54	4.03	Sample	OK	1

F707372-BSD1	B12	1	1.55	15.19
1706469-06	C1	10	1.55	30.17
1707148-01	C2	1	1.55	0.38
1707148-02	C3	1	1.55	0.08
1707292-01	C4	1	1.55	2.19
1707292-02	C5	1	1.55	0.03
F707372-DUP1	C6	1	1.55	2.23
F707372-MS1	C7	1	1.55	10.93
SEQ-CCVA	C8	1	1.55	4.91
SEQ-CCBA	C9	1	1.55	0.07
F707372-MSD1	C10	1	1.55	11.08
SEQ-CCVB	C11	1	1.55	4.89
SEQ-CCB3	C12	1	1.55	0.05

337.73

71044-1.RAW	15:57.54	1509.32	Sample	OK	1
71045-1.RAW	16:02.02	301.06	Sample	OK	1
71046-1.RAW	16:06.11	39.37	Sample	OK	1
71047-1.RAW	16:10.19	9.81	Sample	OK	1
71048-1.RAW	16:14.28	216.13	Sample	OK	1
71049-1.RAW	16:18.36	4.60	Sample	OK	1
71050-1.RAW	16:22.44	223.41	Sample	OK	1
71051-1.RAW	16:26.53	1086.11	Sample	OK	1
71052-1.RAW	16:31.01	488.50	Sample	OK	1
71053-1.RAW	16:35.10	8.64	Sample	OK	1
71054-1.RAW	16:39.18	1101.19	Sample	OK	1
71055-1.RAW	16:43.26	485.62	Sample	OK	1
71056-1.RAW	16:47.35	5.95	Sample	OK	1

Failing Data Report - 7G14006

Sample ID	Analysis	Result	MRI	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1706930-07	Hg-CVAFS-T-7030	515	3.83				ng/g						FAIL-OVER	PASS	E
1706933-01	Hg-CVAFS-T-7030	1820	21.0				ng/g						FAIL-OVER	PASS	E
1706933-04	Hg-CVAFS-T-7030	3490	14.9				ng/g						FAIL-OVER	PASS	E
1706933-05	Hg-CVAFS-T-7030	1400	11.3				ng/g						FAIL-OVER	PASS	E
1706933-06	Hg-CVAFS-T-7030	1990	16.2				ng/g						FAIL-OVER	PASS	E
1706933-07	Hg-CVAFS-T-7030	2380	14.0				ng/g						FAIL-OVER	PASS	E
1706933-08	Hg CVAFS-T-7030	3580	36.5				ng/g						FAIL-OVER	PASS	E
1706933-10	Hg-CVAFS-T-7030	2980	12.2				ng/g						FAIL-OVER	PASS	F
1706933-11	Hg-CVAFS-T-7030	2480	13.0				ng/g						FAIL-OVER	PASS	E
1706933-12	Hg-CVAFS-T-7030	5660	13.2				ng/g						FAIL-OVER	PASS	E
1706935-02	Hg-CVAFS-T-7030	2690	29.5				ng/g						FAIL-OVER	PASS	E
1706934-02	Hg-CVAFS-T-7030	2460	20.4				ng/g						FAIL-OVER	PASS	E
F707327-DUP1	Hg-CVAFS-T-7030	18.29	0.779	11.59	11.59		ng/g				44.8	24.00	PASS-OVER	FAIL-DUP	QR-07

Don Maxam
 Analyst Reviewed By

7/14/17
 Date

[Signature]
 Peer Reviewed By

7/14/17
 Date

ANALYSIS SEQUENCE

7G14006

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14006-IBL1	QC	1			
7G14006-IBL2	QC	2			
7G14006-IBL3	QC	3			
7G14006-CAL1	QC	4	1702602		
7G14006-CAL2	QC	5	1702603		
7G14006-CAL3	QC	6	1702604		
7G14006-CAL4	QC	7	1702605		
7G14006-CAL5	QC	8	1702606		
7G14006-ICV1	QC	9	1703679		
F707327-BLK1	QC	10			
F707327-BLK2	QC	11			
F707327-BLK3	QC	12			
F707327-BS1	QC	13			
F707327-BSD1	QC	14			
1706930-04	Hg-CVAFS-T-7030	15			
1706930-05	Hg-CVAFS-T-7030	16			
1706930-07	Hg-CVAFS-T-7030	17			
1706931-03	Hg-CVAFS-T-7030	18			
1706931-04	Hg-CVAFS-T-7030	19			
7G14006-CCV1	QC	20	1703679		
7G14006-CCB1	QC	21			
1706931-06	Hg-CVAFS-T-7030	22			
1706931-07	Hg-CVAFS-T-7030	23			
1706931-08	Hg-CVAFS-T-7030	24			
1706932-01	Hg-CVAFS-T-7030	25			
1706932-02	Hg-CVAFS-T-7030	26			
1706932-03	Hg-CVAFS-T-7030	27			
1706932-04	Hg-CVAFS-T-7030	28			
1706932-05	Hg-CVAFS-T-7030	29			
1706932-08	Hg-CVAFS-T-7030	30			
1706932-09	Hg-CVAFS-T-7030	31			
7G14006-CCV2	QC	32	1703679		
7G14006-CCB2	QC	33			
1706932-10	Hg-CVAFS-T-7030	34			
1706933-01	Hg-CVAFS-T-7030	35			

Due Date: 7/31/2017

ANALYSIS SEQUENCE

7G14006

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706933-02	Hg-CVAFS-T-7030	36			
1706933-03	Hg-CVAFS-T-7030	37			
1706930-04RE1	Hg-CVAFS-T-7030	38			Added 7/14/2017 by DM2
1706930-07RE1	Hg-CVAFS-T-7030	39			Added 7/14/2017 by DM2
1706931-03RE1	Hg-CVAFS-T-7030	40			Added 7/14/2017 by DM2
1706931-04RE1	Hg-CVAFS-T-7030	41			Added 7/14/2017 by DM2
F707327-DUP1	QC	42			
F707327-MS1	QC	43			
7G14006-CCV3	QC	44	1703679		
7G14006-CCB3	QC	45			
F707327-MSD1	QC	46			
F707327-MS2	QC	47			
F707327-MSD2	QC	48			
1706933-01RE1	Hg-CVAFS-T-7030	49			Added 7/14/2017 by DM2
1706933-02RE1	Hg-CVAFS-T-7030	50			Added 7/14/2017 by DM2
F707328-BLK1	QC	51			
F707328-BLK2	QC	52			
F707328-BLK3	QC	53			
F707328-BS1	QC	54			
F707328-BSD1	QC	55			
7G14006-CCV4	QC	56	1703679		
7G14006-CCB4	QC	57			
F707327-DUP2	QC	58			
1706933-04	Hg-CVAFS-T-7030	59			
1706933-05	Hg-CVAFS-T-7030	60			
1706933-06	Hg-CVAFS-T-7030	61			
1706933-07	Hg-CVAFS-T-7030	62			
1706933-08	Hg-CVAFS-T-7030	63			
1706933-09	Hg-CVAFS-T-7030	64			
1706933-10	Hg-CVAFS-T-7030	65			
1706933-11	Hg-CVAFS-T-7030	66			
1706933-12	Hg-CVAFS-T-7030	67			
7G14006-CCV5	QC	68	1703679		
7G14006-CCB5	QC	69			
1706934-01	Hg-CVAFS-T-7030	70			

Due Date: 7/31/2017

ANALYSIS SEQUENCE

7G14006

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706935-02	Hg-CVAFS-T-7030	71			
1706933-04RE1	Hg-CVAFS-T-7030	72			Added 7/14/2017 by DM2
1706933-05RE1	Hg-CVAFS-T-7030	73			Added 7/14/2017 by DM2
1706933-06RE1	Hg-CVAFS-T-7030	74			Added 7/14/2017 by DM2
1706933-07RE1	Hg-CVAFS-T-7030	75			Added 7/14/2017 by DM2
1706933-08RE1	Hg-CVAFS-T-7030	76			Added 7/14/2017 by DM2
1706933-09RE1	Hg-CVAFS-T-7030	77			Added 7/14/2017 by DM2
1706933-10RE1	Hg-CVAFS-T-7030	78			Added 7/14/2017 by DM2
1706933-11RE1	Hg-CVAFS-T-7030	79			Added 7/14/2017 by DM2
7G14006-CCV6	QC	80	1703679		
7G14006-CCB6	QC	81			
1706933-12RE1	Hg-CVAFS-T-7030	82			Added 7/14/2017 by DM2
1706935-02RE1	Hg-CVAFS-T-7030	83			Added 7/14/2017 by DM2
1706933-04RE2	Hg-CVAFS-T-7030	84			Added 7/14/2017 by DM2
1706934-02	Hg-CVAFS-T-7030	85			
1706934-03	Hg-CVAFS-T-7030	86			
1706934-04	Hg-CVAFS-T-7030	87			
1706934-05	Hg-CVAFS-T-7030	88			
1706935-03	Hg-CVAFS-T-7030	89			
1706935-04	Hg-CVAFS-T-7030	90			
1706935-05	Hg-CVAFS-T-7030	91			
7G14006-CCV7	QC	92	1703679		
7G14006-CCB7	QC	93			
1706935-06	Hg-CVAFS-T-7030	94			
1706935-07	Hg-CVAFS-T-7030	95			
1706934-02RE1	Hg-CVAFS-T-7030	96			Added 7/14/2017 by DM2
1706934-03RE1	Hg-CVAFS-T-7030	97			Added 7/14/2017 by DM2
F707328-DUP1	QC	98			
F707328-MS1	QC	99			
F707328-MSD1	QC	100			
F707328-MS2	QC	101			
F707328-MSD2	QC	102			
F707328-DUP2	QC	103			
7G14006-CCV8	QC	104	1703679		
7G14006-CCB8	QC	105			

Due Date: 7/31/2017

ANALYSIS SEQUENCE

7G14006

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14006-CCV9	QC	106	1703679		
7G14006-CCB9	QC	107			
F707328-MS3	QC	108			
F707328-MSD3	QC	109			
7G14006-CCVA	QC	110	1703679		
7G14006-CCBA	QC	111			

Don Maxam 7/13/17
 Samples Loaded By Date

Don Maxam 7/14/17
 Data Processed By Date

ANALYSIS SEQUENCE

7G14007



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14007-IBL1	QC	1			
7G14007-IBL2	QC	2			
7G14007-IBL3	QC	3			
7G14007-CAL1	QC	4	1702602		
7G14007-CAL2	QC	5	1702603		
7G14007-CAL3	QC	6	1702604		
7G14007-CAL4	QC	7	1702605		
7G14007-CAL5	QC	8	1702606		
7G14007-ICV1	QC	9	1703679		
7G14007-CCV1	QC	10	1703679		
7G14007-CCB1	QC	11			
7G14007-CCV2	QC	12	1703679		
7G14007-CCB2	QC	13			
7G14007-CCV3	QC	14	1703679		
7G14007-CCB3	QC	15			
7G14007-CCV4	QC	16	1703679		
7G14007-CCB4	QC	17			
7G14007-CCV5	QC	18	1703679		
7G14007-CCB5	QC	19			
7G14007-CCV6	QC	20	1703679		
7G14007-CCB6	QC	21			
7G14007-CCV7	QC	22	1703679		
7G14007-CCB7	QC	23			
7G14007-CCV8	QC	24	1703679		
7G14007-CCB8	QC	25			
F707372-BLK1	QC	26			
F707372-BLK2	QC	27			
F707372-BLK3	QC	28			
F707372-BLK4	QC	29			
F707372-BLK5	QC	30			
F707372-BLK6	QC	31			
F707372-BLK7	QC	32			
F707372-BLK8	QC	33			
F707372-BLK9	QC	34			
F707372-BS1	QC	35			

Due Date: 7/14/2017

ANALYSIS SEQUENCE

7G14007



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14007-CCV9	QC	36	1703679		
7G14007-CCB9	QC	37			
F707372-BSD1	QC	40			
1706489-06	Hg-CVAFS-W-1631-WI DNR	41			
1707148-01	Hg-CVAFS-W-1631-WI DNR	42			
1707148-02	Hg-CVAFS-W-1631-WI DNR	43			
1707292-01	Hg-CVAFS-W-1631-WI DNR	44			
1707292-02	Hg-CVAFS-W-1631-WI DNR	45			
F707372-DUP1	QC	46			
F707372-MS1	QC	47			
7G14007-CCVA	QC	48	1703679		
7G14007-CCBA	QC	49			
F707372-MSD1	QC	50			
7G14007-CCVB	QC	51	1703679		
7G14007-CCBB	QC	52			

Don Moxam 7/13/17
 Samples Loaded By Date

Don Moxam 7/14/17
 Data Processed By Date

ANALYSIS SEQUENCE

7G14007

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14007-IBL1	QC	1			
7G14007-IBL2	QC	2			
7G14007-IBL3	QC	3			
7G14007-CAL1	QC	4	1702602		
7G14007-CAL2	QC	5	1702603		
7G14007-CAL3	QC	6	1702604		
7G14007-CAL4	QC	7	1702605		
7G14007-CAL5	QC	8	1702606		
7G14007-ICV1	QC	9	1703679		
7G14007-CCV1	QC	10	1703679		
7G14007-CCB1	QC	11			
7G14007-CCV2	QC	12	1703679		
7G14007-CCB2	QC	13			
7G14007-CCV3	QC	14	1703679		
7G14007-CCB3	QC	15			
7G14007-CCV4	QC	16	1703679		
7G14007-CCB4	QC	17			
7G14007-CCV5	QC	18	1703679		
7G14007-CCB5	QC	19			
7G14007-CCV6	QC	20	1703679		
7G14007-CCB6	QC	21			
7G14007-CCV7	QC	22	1703679		
7G14007-CCB7	QC	23			
7G14007-CCV8	QC	24	1703679		
7G14007-CCB8	QC	25			
F707372-BLK1	QC	26			
F707372-BLK2	QC	27			
F707372-BLK3	QC	28			
F707372-BLK4	QC	29			
F707372-BLK5	QC	30			
F707372-BLK6	QC	31			
F707372-BLK7	QC	32			
F707372-BLK8	QC	33			
F707372-BLK9	QC	34			
F707372-BS1	QC	35			

PC 7/14/17

Due Date: 7/14/2017

ANALYSIS SEQUENCE

7G14007

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14007-CCV9	QC	36	1703679		
7G14007-CCB9	QC	37			
F707328-MS4	QC	38			
F707328-MSD4	QC	39			
F707372-BSD1	QC	40			
1706489-06	Hg-CVAFS-W-1631-W1 DNR	41			
1707148-01	Hg-CVAFS-W-1631-W1 DNR	42			
1707148-02	Hg-CVAFS-W-1631-W1 DNR	43			
1707292-01	Hg-CVAFS-W-1631-W1 DNR	44			
1707292-02	Hg-CVAFS-W-1631-W1 DNR	45			
F707372-DUP1	QC	46			
F707372-MS1	QC	47			
7G14007-CCVA	QC	48	1703679		
7G14007-CCBA	QC	49			
F707372-MSD1	QC	50			
7G14007-CCVB	QC	51	1703679		
7G14007-CCBB	QC	52			

Don Mottram 7/13/17
 Samples Loaded By Date

Don Mottram 7/14/17
 Data Processed By Date

BC 7/14/17

PREPARATION BENCH SHEET

F707372

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 7/13/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707372-BLK1	Blank	100	101					SOURCE4 1707148-03
F707372-BLK2	Blank	100	101					SOURCE4 1707148-03
F707372-BLK3	Blank	100	101					SOURCE4 1707148-03
F707372-BLK4	Blank	100	105					SOURCE 1706489-22
F707372-BLK5	Blank	100	105					SOURCE 1706489-22
F707372-BLK6	Blank	100	105					SOURCE 1706489-22
F707372-BLK7	Blank	100	101					SOURCE 1707292-03
F707372-BLK8	Blank	100	101					SOURCE 1707292-03
F707372-BLK9	Blank	100	101					SOURCE 1707292-03
F707372-BS1	LCS	50	50.5	1604715	100			
F707372-BSD1	LCS Dup	50	50.5	1604715	100			
F707372-DUP1	Duplicate [1707292-01]	100	101					
F707372-MS1	Matrix Spike [1707292-01]	49.50495	50	1702556	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F707372-MSD1	Matrix Spike Dup [1707292-01]	49.50495	50	1702556	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1604715	Nist 1641D 200X	18-Aug-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1702556	THg 10ng/mL Calibration Standard	26-Jul-17 00:00	1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703377	THg Dilute 1% BrCl	
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00

PREPARATION BENCH SHEET

F707372

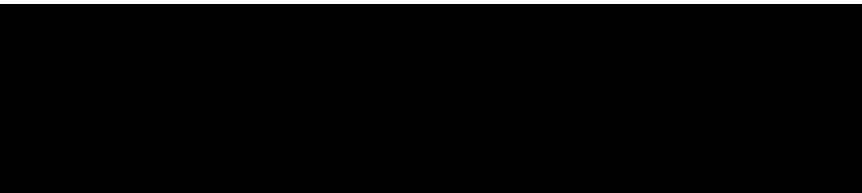
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 7/13/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706489-06	6 J2 Wastewater	100	105	-	-	-	Preservation Blank Created	
1707148-01	1707039-03 Monthly Effluent Mercury	100	101	-	-	-	Preservation Blank Created	
1707148-02	1707039-04 Monthly Effluent Mercury - Blank	100	101	-	-	-	Preservation Blank Created	
1707292-01	1707090-01 Johnson Controls Outfall	100	101	-	-	-	Preservation Blank Created	
1707292-02	1707090-02 Johnson Controls Outfall - Blank	100	101	-	-	-	Preservation Blank Created	



PREPARATION BENCH SHEET

F707327

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707327-BLK1	Blank	0.25	20					
F707327-BLK2	Blank	0.25	20					
F707327-BLK3	Blank	0.25	20					
F707327-BS1	LCS	0.25	20	1702555	20			
F707327-BSD1	LCS Dup	0.25	20	1702555	20			
F707327-DUP1	Duplicate [1706931-04RE1]	0.2566	20					
F707327-DUP2	Duplicate [1706931-04RE1]	0.2577	20					
F707327-MS1	Matrix Spike [1706932-04]	0.2515	20	1700685	100			
F707327-MS2	Matrix Spike [1706932-05]	0.2604	20	1700685	100			
F707327-MSD1	Matrix Spike Dup [1706932-04]	0.2531	20	1700685	100			
F707327-MSD2	Matrix Spike Dup [1706932-05]	0.2684	20	1700685	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
			1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703377	THg Dilute 1% BrCl	
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
			1704145	5% BrCl	18-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00

PREPARATION BENCH SHEET

F707327

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Spces.	Raw Data	Sample Comments	Analysis Comments
1706930-04	MMSE-I_17BN001_062117_TIN_04_WB	0.2765	20	-	-	-		
1706930-04RE1	MMSE-I_17BN001_062117_TIN_04_WB	0.2765	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706930-05	MMSE-I_17BN003_062117_TIN_05_WB	0.255	20	-	-	-		
1706930-07	MMSE-I_17PT002_062117_SPI_02_WB	0.2608	20	-	-	-		
1706930-07RE1	MMSE-I_17PT002_062117_SPI_02_WB	0.2608	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706931-03	MMSW-C_17BN002_062317_TIN_03_WB	0.2997	20	-	-	-		
1706931-03RE1	MMSW-C_17BN002_062317_TIN_03_WB	0.2997	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706931-04	MMSW-C_17BN001_062317_TIN_04_WB	0.2577	20	-	-	-		
1706931-04RE1	MMSW-C_17BN001_062317_TIN_04_WB	0.2577	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706931-06	MMSW-C_17PT002_062317_SPI_01_WB	0.2565	20	-	-	-		
1706931-07	MMSW-C_17PT002_062317_SPI_02_WB	0.2563	20	-	-	-		
1706931-08	MMSW-C_17PT003_062317_SPI_03_WB	0.2564	20	-	-	-		
1706932-01	ADD-01_17BN001_062317_TIN_01_WB	0.2592	20	-	-	-		
1706932-02	ADD-01_17BN002_062317_TIN_02_WB	0.2602	20	-	-	-		
1706932-03	ADD-01_17BN003_062317_TIN_03_WB	0.2728	20	-	-	-		
1706932-04	ADD-01_17BN004_062317_TIN_04_WB	0.2978	20	QC	-	-	MS/MSD	
1706932-05	ADD-01_17HC002_062317_TIN_05_WB	0.2615	20	QC	-	-	MS/MSD	
1706932-08	ADD-01_17HC001_062717_SPI_03_WB	0.2512	20	-	-	-		
1706932-09	ADD-01_17HC002_062717_SPI_04_WB	0.2614	20	-	-	-		

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707327

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

1706932-10	ADD-01_17HC001_062717_SPI_05_WB	0.2561	20	-	-	-		
1706933-01	W17-N_17MN001_061917_NSS_01_BL	0.0476	20	-	-	-		
1706933-01RE1	W17-N_17MN001_061917_NSS_01_BL	0.0476	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-02	W17-N_17MN008_061917_NSS_02_BL	0.0094	20	-	-	-		
1706933-02RE1	W17-N_17MN008_061917_NSS_02_BL	0.0094	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-03	W17-N_17MN007_062017_NSS_03_BL	0.0288	20	-	-	-		

PREPARATION BENCH SHEET

F707328

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707328-BLK1	Blank	0.25	20					
F707328-BLK2	Blank	0.25	20					
F707328-BLK3	Blank	0.25	20					
F707328-BS1	LCS	0.25	20	1702555	20			
F707328-BSD1	LCS Dup	0.25	20	1702555	20			
F707328-DUP1	Duplicate [1706933-05RE1]	0.0166	20					
F707328-DUP2	Duplicate [1706933-05RE1]	0.0888	20					
F707328-MS1	Matrix Spike [1706933-06RE1]	0.0574	20	1700685	100			
F707328-MS2	Matrix Spike [1706934-01]	0.0633	20	1700685	100			
F707328-MS3	Matrix Spike [1706933-06RE1]	0.00015425	0.05	1702556	100			[Spk] 0.0617g->20mL; 40mL->40mL; Spiked 0.05mL
F707328-MSD1	Matrix Spike Dup [1706933-06RE1]	0.0651	20	1700685	100			
F707328-MSD2	Matrix Spike Dup [1706934-01]	0.0971	20	1700685	100			
F707328-MSD3	Matrix Spike Dup [1706933-06RE1]	0.00015425	0.05	1702556	100			[Spk] 0.0617g->20mL; 40mL->40mL; Spiked 0.05mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1702556	THg 10ng/mL Calibration Standard	26-Jul-17 00:00	1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703377	THg Dilute 1% BrCl	
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
			1704145	5% BrCl	18-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00

PREPARATION BENCH SHEET

F707328

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706933-04	W17-N_17MN001_062017_NSS_04_BI	0.0671	20	-	-	-		
1706933-04RE1	W17-N_17MN001_062017_NSS_04_BL	0.0671	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-04RE2	W17-N_17MN001_062017_NSS_04_BL	0.0671	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-05	W17-N_17MN002_062017_NSS_05_BI	0.0888	20	-	-	-		
1706933-05RE1	W17-N_17MN002_062017_NSS_05_BL	0.0888	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-06	W17-N_17MN007_062017_NSS_06_BI	0.0617	20	QC	-	-	MS/MSD	
1706933-06RE1	W17-N_17MN007_062017_NSS_06_BL	0.0617	20	QC	-	-	MS/MSD Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-07	W17-N_17MN010_062017_NSS_07_BI	0.0713	20	-	-	-		
1706933-07RE1	W17-N_17MN010_062017_NSS_07_BL	0.0713	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-08	W17-N_17MN037_062517_NSS_08_BI	0.0274	20	-	-	-		
1706933-08RE1	W17-N_17MN037_062517_NSS_08_BL	0.0274	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-09	W17-N_17MN037_062517_NSS_09_BI	0.0375	20	-	-	-		
1706933-09RE1	W17-N_17MN037_062517_NSS_09_BL	0.0375	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-10	W17-N_17MN041_062517_NSS_10_BI	0.0823	20	-	-	-		
1706933-10RE1	W17-N_17MN041_062517_NSS_10_BL	0.0823	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-11	W17-N_17MN058_062617_NSS_11_BI	0.0772	20	-	-	-		
1706933-11RE1	W17-N_17MN058_062617_NSS_11_BL	0.0772	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706933-12	W17-N_17MN063_062917_NSS_12_BI	0.0757	20	-	-	-		
1706933-12RE1	W17-N_17MN063_062917_NSS_12_BL	0.0757	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707328

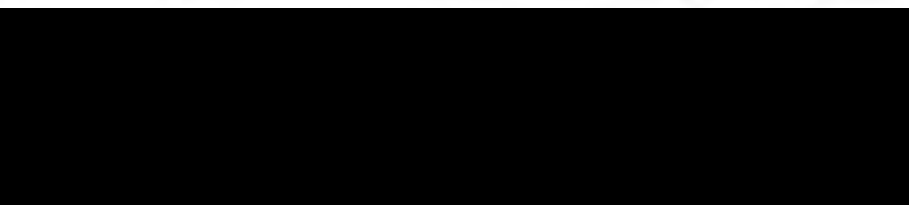
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

1706934-01	W17-N_17MN002_061917_RWB_01_BL	0.066	20	QC	-	-	MS/MSD	
1706934-02	W17-N_17MN005_061917_RWB_02_BL	0.1961	20	-	-	-		
1706934-02RE1	W17-N_17MN005_061917_RWB_02_BL	0.1961	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706934-03	W17-N_17MN006_061917_RWB_03_BL	0.0736	20	-	-	-		
1706934-03RE1	W17-N_17MN006_061917_RWB_03_BL	0.0736	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706934-04	W17-N_17MN006_061917_RWB_04_BL	0.0142	20	-	-	-		
1706934-05	W17-N_17MN037_062517_RWB_05_BL	0.0487	20	-	-	-		
1706935-02	MMSE-1_17MN009_062117_NSS_02_BL	0.1355	20	-	-	-		
1706935-02RE1	MMSE-1_17MN009_062117_NSS_02_BL	0.1355	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706935-03	MMSE-1_17MN007_062117_NSS_03_BL	0.1139	20	-	-	-		
1706935-04	MMSE-1_17MN011_062117_NSS_04_BL	0.0656	20	-	-	-		
1706935-05	MMSE-1_17MN010_062117_NSS_05_BL	0.1203	20	-	-	-		
1706935-06	MMSE-1_17MN010_062117_NSS_06_BL	0.023	20	-	-	-		
1706935-07	MMSE-1_17MN001_062117_NSS_07_BL	0.0587	20	-	-	-		



PREPARATION BENCH SHEET

200.3
7/13/17 DM

F707372

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

WT-DNR

Prepared: 7/13/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707372-BLK1	Blank	100	101					Source 1707148.03 IX
F707372-BLK2	Blank	100	101					" " IX
F707372-BLK3	Blank	100	101					" " IX
F707372-BLK4	Blank	100	105					Source 1702489.06 22 IX
F707372-BLK5	Blank	100	105					" " IX
F707372-BLK6	Blank	100	105					" " IX
F707372-BLK7	Blank	100	101					Source 1707292.03 IX
F707372-BLK8	Blank	100	101					" " IX
F707372-BLK9	Blank	100	101					" " IX
F707372-BS1	LCS	50 100	50.5 101	1024715	100			IX
F707372-BSD1	LCS Dup	50 100	50.5 101	1024715	100			IX
F707372-DUPI	Duplicate 1707292.01	100	101					IX
F707372-MS1	Matrix Spike 1707292.01	100	101	1702556	50			IX
F707372-MSD1	Matrix Spike Dup 1707292.01	100	101	1702556	50			IX

Standard ID(s): Description:

Expiration:

17031892
1703376
1703377
1704095

Due Date: 7/14/2017

PREPARATION BENCH SHEET

2690.3

7/13/17 DM

F707372

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 7/13/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706489-06	6 J2 Wastewater	100	101 105	-	-	-	Preservation Blank Created	10X
1707148-01	1707039-03 Monthly Effluent Mercury	100	101	-	-	-	Preservation Blank Created	1X
1707148-02	1707039-04 Monthly Effluent Mercury - Blank	100	101	-	-	-	Preservation Blank Created	1X
1707292-01	1707090-01 Johnson Controls Outfall	100	101	-	-	-	Preservation Blank Created	1X
1707292-02	1707090-02 Johnson Controls Outfall - Blank	100	101	-	-	-	Preservation Blank Created	1X



Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: CB Date: 7/7/17 Time Completed: 9:30

Work Orders: 1706489
1707101

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____
Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1703700
Pipette SN: JH04193
Cal. Date: 5/25/17

Additional preservation (as needed)

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1706489-06A	300	9.00	Y			
1706489-22A	300	15.00	Y			
1707101-01A	125	1.25	Y			

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: CB Date: 7/7/17 Time Completed: 15:00

Work Orders: 1707148, 1707150

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Technician: _____ Date: _____ Time Completed: _____

BrCl LIMS ID: 1703700

Pipette SN: JH04193

Cal. Date: 5/25/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1707148-01A	300	3.00	Y			
1707148-02A	300	3.00	Y			
1707148-03A	300	3.00	Y			
1707150-01A	300	3.00	Y			
1707150-02A	300	3.00	Y			
1707150-03A	300	3.00	Y			
1707150-04A	300	3.00	Y			
1707150-05A	300	3.00	Y			
1707150-06A	300	3.00	Y			
1707150-07A	300	3.00	Y			
1707150-08A	300	3.00	Y			
<div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.5;"> <p>CB 7/7/17</p> </div>						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

CB 7/11/17
Reviewed
No issues

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: CB Date: 7/12/17 Time Completed: 1500

Work Orders: 1707290, 1707292,
~~1707295~~, 1707293, 1707294
~~1707295~~
 BrCl LIMS ID: 1703700

Additional preservation and/or verification (as needed)

Technician: _____ Date: _____ Time Completed: _____

Pipette SN: JO 7631

Technician: _____ Date: _____ Time Completed: _____

Cal. Date: 7/14/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1707290-01A	300	3.00	Y			
1707290-02A	300	3.00	Y			
1707290-03A	300	3.00	Y			
1707290-04A	300	3.00	Y			
1707290-05B (split)	300 ²⁰ 10.00	3.00 ²⁰ 10.00	Y			
1707290-06A	300	3.00	Y			
1707292-01A	300	3.00	Y			
1707292-02A	300	3.00	Y			
1707292-03A	300	3.00	Y			
1707293-01B	300	3.00	Y			
1707293-02B	300	3.00	Y			
1707293-03B	300	3.00	Y			
1707293-04B	300	3.00	Y			
1707293-05B	300	3.00	Y			
1707293-06B	300	3.00	Y			
1707294-01B	300	3.00	Y			
1707294-02B	300	3.00	Y			
1707294-03B	300	3.00	Y			
1707295-01A	300	3.00	Y			
1707295-02A	300	3.00	Y			
<i>CB 7/12/17</i>						

Oxidation with BrCl is confirmed by a yellow color change of the sample and/or a purple color change in KI starch paper.

Comments: _____

Reviewed
 9/15/17
 on

PREPARATION BENCH SHEET

2600-3
7/19/17 DM

F707327

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017
~~7/10/2017~~ ^{cc} 7/12/17

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Extraction Comments
F707327-BLK1	Blank	0.25	20					20X
F707327-BLK2	Blank	0.25	20					20X
F707327-BLK3	Blank	0.25	20					20X
F707327-BS1	LCS	0.25	20	1702555	20			20X
F707327-BSD1	LCS Dup ^{CIC} _{7/12/17}	0.25	20	1702555	20			20X
F707327-DUP1	Duplicate [1706932-04] 1706931-04RE1	0.2566	20					20X
F707327-MS1	Matrix Spike [1706932-04]	0.2515	20	1700685	100			400X
F707327-MS2	Matrix Spike [1706932-05]	0.2604	20	1700685	100			400X
F707327-MSD1	Matrix Spike Dup [1706932-04]	0.2531	20	1700685	100			400X
F707327-MSD2	Matrix Spike Dup [1706932-05]	0.2684	20	1700685	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1704145	5% BrCl	18-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00

DUP2-AD
1706931-04RE1
20X

1704095
1709377
1703376
1703182

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707327

Eurofins Frontier Global Sciences, Inc.

200-3

7/13/17 DM

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/10/2017 *si - F1217*

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706930-04	MMSE-1_17BN001_062117_TIN_04_WB	0.2765	20	-	-	-		100X → 20X
1706930-05	MMSE-1_17BN003_062117_TIN_05_WB	0.255	20	-	-	-		100X
1706930-07	MMSE-1_17PT002_062117_SPI_02_WB	0.2608	20	-	-	-		100X → 400X
1706931-03	MMSW-C_17BN002_062317_TIN_03_WB	0.2997	20	-	-	-		100X → 100X
1706931-04	MMSW-C_17BN001_062317_TIN_04_WB	0.2577	20	-	-	-		100X → 20X
1706931-06	MMSW-C_17PT002_062317_SPI_01_WB	0.2565	20	-	-	-		20X 400X
1706931-07	MMSW-C_17PT002_062317_SPI_02_WB	0.2563	20	-	-	-		400X
1706931-08	MMSW-C_17PT003_062317_SPI_03_WB	0.2564	20	-	-	-		400X
1706932-01	ADD-01_17BN001_062317_TIN_01_WB	0.2592	20	-	-	-		20X
1706932-02	ADD-01_17BN002_062317_TIN_02_WB	0.2602	20	-	-	-		20X
1706932-03	ADD-01_17BN003_062317_TIN_03_WB	0.2728	20	-	-	-		20X
1706932-04	ADD-01_17BN004_062317_TIN_04_WB	0.2978	20	QC	-	-	MS/MSD	20X
1706932-05	ADD-01_17HC002_062317_TIN_05_WB	0.2615	20	QC	-	-	MS/MSD	20X
1706932-08	ADD-01_17HC001_062717_SPI_03_WB	0.2512	20	-	-	-		400X
1706932-09	ADD-01_17HC002_062717_SPI_04_WB	0.2614	20	-	-	-		20X 400X
1706932-10	ADD-01_17HC001_062717_SPI_05_WB	0.2561	20	-	-	-		100X
1706933-01	W17-N_17MN001_061917_NSS_01_BL	0.0476	20	-	-	-		100X → 400X
1706933-02	W17-N_17MN008_061917_NSS_02_BL	0.0094	20	-	-	-		100X → 100X
1706933-03	W17-N_17MN007_062017_NSS_03_BL	0.0288	20	-	-	-		100X

PREPARATION BENCH SHEET

F707327

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: ~~7/10/2017~~
7/11/2017
7/12/17



Technician: CL/DH Batch#: F707327 Date: 7/11/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 1607 Actual Temp. (raw): 81.0 °C w/ CF: 81.0 °C ^{cell} 7/11/17
 Time out: 1807 Actual Temp. (raw): 81.0 °C w/ CF: 81.0 °C

*Time in can't begin before target temperature is reached
 Final vol.: 20 mL (LIMS ID: 1704145) Spike vol.: 100 µL (LIMS ID: 1700685)
 Spike Witness: DM 7/11/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: MU11619 Calibration Date: 7/5/17
 HNO₃ LIMS ID: NA Pipette SN#: NA Calibration Date: NA
 70/30 LIMS ID: 1704177 Dispenser #: DLK27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 20066828 Boiling Chip lot # 1702651 *Hotblock Position: 19

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F707327-BLK1	0.2756	23	1706932-04	0.2978	
2	F707327-BLK2	0.2785	24	1706932-05	0.2615	
3	F707327-BLK3	0.2813	25	^{cell} 1706932-06	0.2512	
4	F707327-BLKBS1	0.2556	26	1706932-09	0.2614	Comments
5	F707327-BSD1	0.2511	27	1706932-10	0.2561	
6	F707327-DUP1	0.2566	28	1706933-01	0.0476	MS1/MSD1 SRC: 1706932-04
7	F707327-MS1	0.2515	29	1706933-02	0.0094	MS2/MSD2
8	F707327-MSD1	0.2531	30	1706933-03	0.0288	SRC: 1706932-05
9	F707327-MS2	0.2604	31			Dup SRC 1706931-04 BS/BSD spiked 20ul of 100ug/ml 1702555 CLV 7/12/17
10	F707327-MSD2	0.2684	32			
11	1706930-04	0.2765	33			
12	1706930-05	0.2550	34			
13	1706930-07	0.2608	35			
14	1706931-03	0.2997	36			
15	1706931-04	0.2577	37			
16	1706931-05	0.2577	38			
17	1706931-06	0.2565	39			
18	1706931-07	0.2563	40			
19	1706931-08	0.2564	41			
20	1706932-01	0.2592	42			
21	1706932-02	0.2602	43			
22	1706932-03	0.2728	44			

PREPARATION BENCH SHEET

200-3
7/13/17 DM

F707328

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707328-BLK1	Blank	0.25	20					20x
F707328-BLK2	Blank	0.25	20					20x
F707328-BLK3	Blank	0.25	20					20x
F707328-BS1	LCS	0.25	20	1702555	20			20x
F707328-BSD1	LCS Dup 1706933-06 ^{7/13/17}	0.25	20	1702555	20			20x
F707328-DUP1	Duplicate [1706933-06] ^{7/13/17} 1706933-05 RE1	0.166	20					400x
F707328-MS1	Matrix Spike [1706933-06] RE1	0.0574	20	1700685	100			400x
F707328-MS2	Matrix Spike [1706934-01]	0.0633	20	1700685	100			400x
F707328-MSD1	Matrix Spike Dup [1706933-06] RE1	0.0651	20	1700685	100			400x
F707328-MSD2	Matrix Spike Dup [1706934-01]	0.0971	20	1700685	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1.000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26 Jul-17 00:00	1704145	5% BrCl	18-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00

DUP2-AD 400x

1706933-05 RE1

MSB, MSD3, AS, ASD 1000x

Source 1706933-06 RE1

1004) 1702556

1703152

1703316

1703317

1704095

Due Date: 7/31/2017

2600-3

7/13/17 DM

PREPARATION BENCH SHEET

F707328

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs	Raw Data	Sample Comments	Analysis Comments
1706933-04	W17-N_17MN001_062017_NSS_04_BL	0.0671	20	-	-	-		100X → 400X → 400X
1706933-05	W17-N_17MN002_062017_NSS_05_BL	0.0888	20	-	-	-		100X → 400X
1706933-06	W17-N_17MN007_062017_NSS_06_BL	0.0617	20	QC	-	-	MS/MSD	100X → 400X
1706933-07	W17-N_17MN010_062017_NSS_07_BL	0.0713	20	-	-	-		100X → 400X
1706933-08	W17-N_17MN037_062517_NSS_08_BL	0.0274	20	-	-	-		100X → 400X
1706933-09	W17-N_17MN037_062517_NSS_09_BL	0.0375	20	-	-	-		100X → 400X
1706933-10	W17-N_17MN041_062517_NSS_10_BL	0.0823	20	-	-	-		100X → 400X
1706933-11	W17-N_17MN058_062617_NSS_11_BL	0.0772	20	-	-	-		100X → 400X
1706933-12	W17-N_17MN063_062917_NSS_12_BL	0.0757	20	-	-	-		100X → 400X 1000X
1706934-01	W17-N_17MN002_061917_RWB_01_BL	0.066	20	QC	-	-	MS/MSD	400X
1706934-02	W17-N_17MN005_061917_RWB_02_BL	0.1961	20	-	-	-		400X → 1000X
1706934-03	W17-N_17MN006_061917_RWB_03_BL	0.0736	20	-	-	-		400X → 400X
1706934-04	W17-N_17MN006_061917_RWB_04_BL	0.0142	20	-	-	-		400X
1706934-05	W17-N_17MN037_062517_RWB_05_BL	0.0487	20	-	-	-		400X
1706935-02	MMSE-1_17MN009_062117_NSS_02_BL	0.1355	20	-	-	-		400X → 1000X
1706935-03	MMSE-1_17MN007_062117_NSS_03_BL	0.1139	20	-	-	-		1000X
1706935-04	MMSE-1_17MN011_062117_NSS_04_BL	0.0656	20	-	-	-		1000X
1706935-05	MMSE-1_17MN010_062117_NSS_05_BL	0.1203	20	-	-	-		1000X
1706935-06	MMSE-1_17MN010_062117_NSS_06_BL	0.023	20	-	-	-		1000X

Due Date: 7/31/2017

PREPARATION BENCH SHEET

2600-3

7/13/17 DM

F707328

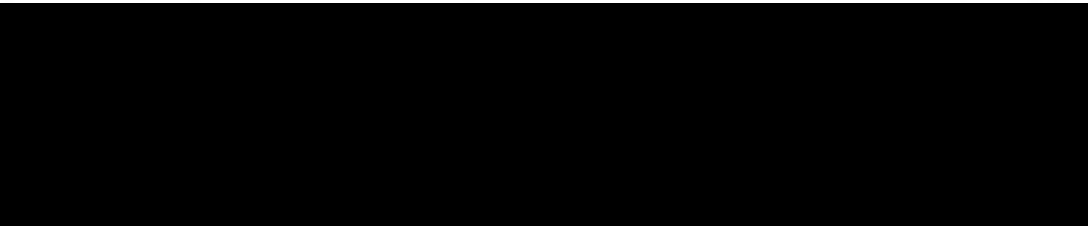
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

1706935-07	MMSE-1_17MN001_062117_NSS_07_BL	0.0587	20	-	-	-	10000
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Technician: ML Batch#: F707328 Date: 7/11/17

- EFAPS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAPS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAPS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAPS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: 13128 Calibrated? Yes No

*Time in: 1607 Actual Temp. (raw): 81.0 °C w/ CF: 81.0 °C

Time out: 1807 Actual Temp. (raw): 81.0 °C w/ CF: 81.0 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1704145) ^{MS/MSD} Spike vol.: 100 µL (LIMS ID: 1700685)

Spike Witness: DM 7/11/17 (initial and date)

HCl LIMS ID: NA

Pipette SN#: MU11619 Calibration Date: 7/5/17

HNO₃ LIMS ID: NA

Pipette SN#: NA Calibration Date: NA

70/30 LIMS ID: 1704177

Dispenser #: 02K27494 Calibrated? Yes No

Other Acid LIMS ID: N/A

Dispenser #: 15406623 Yes

Glass Vial # 00067065 Boiling Chip lot # 1702551 *Hotblock Position: L4

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F707328-BLK1	0.2690	23	1706934-04	0.0142	
2	F707328-BLK2	0.2768	24	1706934-05	0.0487	
3	F707328-BLK3	0.2495	25	1706935-02	0.1355	
4	F707328-BS1	0.2915	26	1706935-03	0.1139	Comments
5	F707328-BSD1	0.2719	27	1706935-04	0.0606	MS1/MSD1
6	F707328-Dup1	0.0166	28	1706935-05	0.1203	SRL-1706933-06
7	F707328-MS1	0.0574	29	1706935-06	0.0230	MS2/MSD2
8	F707328-MSD1	0.0651	30	1706935-07	0.0587	SRL-1706934-01
9	F707328-MS2	0.0633	31			
10	F707328-MSD2	0.0971	32			Dup SRL
11	1706933-04	0.0671	33			1706933-05
12	1706933-05	0.0888	34			
13	1706933-06	0.0617	35			BS/BSD Spike
14	1706933-07	0.0713	36			2nd of 100 µg
15	1706933-08	0.0274	37			1702555
16	1706933-09	0.0375	38			CLC
17	1706933-10	0.0823	39			7/12/17
18	1706933-11	0.0772	40			
19	1706933-12	0.0757	41			
20	1706934-01	0.0660	42			
21	1706934-02	0.1961	43			
22	1706934-03	0.0736	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7G14006 7G14007
Reviewer:	<i>BC</i>	Dataset ID(s):	THG26003-170713-1
Date:	7/14/2017	WO (s) #:	VARIOUS
Batch #(s):	F707372, F707327, F707328		

• Select the correct preparation method.

Analyte	Prep Method		Matrix
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2885	FSIM Trap 70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input checked="" type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg ⁰	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: *DM*Reviewer Initials: *BC*

1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) YES NO
2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data YES NO
- (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? YES NO
- Naming convention: THG26001-yyymmdd-1 or THG26002-yyymmdd-1
- (b) Check 5% of transcription from Instrument print-out and Excel file. YES NO
- Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel
- (c) Check standards & reagents in sequence & bench sheet for correct usage (expiration). YES NO N/A
- (d) Check and compare masses (review prep benchsheet) YES NO N/A
- (e) Check & compare initial & final volumes YES NO N/A
- (f) Do aliquots and dilutions written on benchsheet match those in Excel? YES NO N/A
- 50 ml / aliquot = Excel dilution value
- (g) Is the sequence #, analyst, date, and instrument # on the QC page? YES NO
- (h) Is the analysis status correct? (analyzed/initial review/reviewed) YES NO
- (i) Original prep bench sheet added to data package? YES NO
- (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) YES NO
3. High QA? WO#(s)/Client(s): _____ YES NO
4. Client specific QC? (if Yes, refer to Project Notes/LIMS) YES NO
- (a) Have the QC requirements been met for all WO#s? YES NO
- (b) Prep blanks corrections/assigned properly YES NO
- 5a. 20 or fewer samples in batch? YES NO
- (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? YES NO
- (ii) 1 CCV and 1 CCB every 10 analytical runs? YES NO

Peer Review Check List for THg by 2800 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7G14006, 7G14007
Reviewer:	<i>[Signature]</i> 7/14/17	Dataset ID(s):	THG26003-170713-1
Date:	7/14/2017	WO (s) #:	VARIOUS
Batch #(s):	F707372, F707327, F707328		0

Analyst Initials DM Reviewer Initials BL

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF ($\leq 15\%$) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and OCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: **VARIOUS HIGH SAMPLES, ABOVE CALS. F707327-DUP1, F707328-DUP1 FAILED. HIGH RPD.**
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
- (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit; YES NO
- (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
- (c) Was a BrCI Blank analyzed for each preservation level? YES NO N/A
- (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
- (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
- (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7G14006, 7G14007
Reviewer:	<i>[Signature]</i>	Dataset ID(s):	THG26003-170713-1
Date:	7/14/2017	WO (s) #:	VARIOUS
Batch #(s):	F707372, F707327, F707328		0

Analyst Initials DM Reviewer Initials BL

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | |
|---|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: <u>12-15-16, 11-23-16</u> IDOC/CDOC within last 12 months? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: <u>5/20/2016</u> Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>4-27-17, 5-9-17</u> LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>4-27-17, 5-9-17</u> LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

Analysis Datasheet for Total Mercury

Date of Analysis: July 17, 2017

Analyst: BC

Instrument #: Hg2600 2

Units: ng/L

LIMS Sequence #: 7G18008

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	164.07 units	328.14	145.90 units	291.79	106.9 %Rec
SEQ-CAL2	1	1.00 ng/L	301.59 units	301.59	283.42 units	283.42	103.9 %Rec
SEQ-CAL3	1	5.00 ng/L	1362.29 units	272.46	1344.12 units	268.82	98.5 %Rec
SEQ-CAL4	1	20.00 ng/L	5176.52 units	258.83	5158.35 units	257.92	94.5 %Rec
SEQ-CAL5	1	40.00 ng/L	10514.64 units	262.87	10495.47 units	262.41	96.2 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						
Corr. Mean RF		Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF			
272.87		+/- 14.31	5.2% RSD	284.78			

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IOL	3	18.17 units	±2.43	0.06 ng/L	+0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	2.889 ng/L	±1.131
BLK	2	3	5.352 ng/L	±2.892
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER-REVIEWED
 INITIALS: DM 7/18/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-IBL1	1	7/17/2017 8:00:57	81244-1.RAW	8:00:57 AM	20.93			2.8	0.010	0.010	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	7/17/2017 8:05:05	81245-1.RAW	8:05:05 AM	16.33			-1.8	-0.007	-0.007	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	7/17/2017 8:08:14	81246-1.RAW	8:08:14 AM	17.26			-0.9	-0.003	-0.003	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	7/17/2017 8:13:22	81247-1.RAW	8:13:22 AM	164.07			145.9	0.535	0.535	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	7/17/2017 8:17:30	81248-1.RAW	8:17:30 AM	301.95			283.4	1.039	1.039	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	7/17/2017 8:21:39	81249-1.RAW	8:21:39 AM	1362.29			1344.1	4.926	4.926	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	7/17/2017 8:25:47	81250-1.RAW	8:25:47 AM	5176.52			5158.3	18.904	18.904	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	7/17/2017 8:29:56	81251-1.RAW	8:29:56 AM	10514.84			10496.5	38.467	38.467	ng/L	
Hg2600-2	BC	CAL	SEQ-CV1	1	7/17/2017 8:34:04	81252-1.RAW	8:34:04 AM	1455.14			1437.0	5.266	5.266	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 8:46:45	81253-1.RAW	8:46:45 AM	172.09		x	153.9	0.564	0.000	ng/L	
Hg2600-2	BC	SAM	EFGS07217 TV 2700ng	2500	7/17/2017 8:50:54	81254-1.RAW	8:50:54 AM	2780.69		x	2762.5	10.124	25309.595	ng/L	
Hg2600-2	BC	SAM	EFGS05672 TV 2700ng	2500	7/17/2017 8:55:02	81255-1.RAW	8:55:02 AM	2793.69		x	2775.5	10.171	25428.698	ng/L	
Hg2600-2	BC	BLK	F707329-BLK1	20	7/17/2017 8:59:11	81256-1.RAW	8:59:11 AM	75.39		1	57.2	0.210	4.194	ng/L	
Hg2600-2	BC	BLK	F707329-BLK2	20	7/17/2017 9:03:10	81257-1.RAW	9:03:10 AM	49.24		1	31.1	0.114	2.277	ng/L	
Hg2600-2	BC	BLK	F707329-BLK3	20	7/17/2017 9:07:27	81258-1.RAW	9:07:27 AM	48.12		1	29.9	0.110	2.195	ng/L	
Hg2600-2	BC	SAM	F707329-BS1	20	7/17/2017 9:11:38	81259-1.RAW	9:11:36 AM	1343.03		1	1325.4	4.713	94.258	ng/L	
Hg2600-2	BC	SAM	F707329-BSU1	20	7/17/2017 9:15:44	81260-1.RAW	9:15:44 AM	1340.88		1	1322.7	4.703	94.058	ng/L	
Hg2600-2	BC	SAM	1706935-01	400	7/17/2017 9:19:53	81261-1.RAW	9:19:53 AM	3813.29		1	3795.1	13.901	5560.306	ng/L	
Hg2600-2	BC	SAM	1706935-08	400	7/17/2017 9:24:01	81262-1.RAW	9:24:01 AM	5728.83		1	5710.7	20.921	8368.285	ng/L	
Hg2600-2	BC	SAM	1706935-09	400	7/17/2017 9:28:09	81263-1.RAW	9:28:09 AM	3694.59		1	3676.4	13.466	5386.320	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1		7/17/2017 9:32:18	81264-1.RAW	9:32:18 AM	1445.78			1427.6	5.232	5.232	ng/L	
Hg2600-2	BC	CAL	SEQ-COB1		7/17/2017 9:36:26	81265-1.RAW	9:36:26 AM	68.85			50.7	0.186	0.186	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 9:50:40	81266-1.RAW	9:50:40 AM	188.03		x	147.9	0.542	0.000	ng/L	
Hg2600-2	BC	SAM	1706935-10	400	7/17/2017 9:54:46	81267-1.RAW	9:54:49 AM	1642.20		1	1624.0	5.914	2377.750	ng/L	
Hg2600-2	BC	SAM	1706935-11	400	7/17/2017 9:58:57	81268-1.RAW	9:58:57 AM	5994.44		1	5976.5	21.894	8757.639	ng/L	
Hg2600-2	BC	SAM	1706935-12	400	7/17/2017 10:03:05	81269-1.RAW	10:03:05 AM	4808.27		1	4790.1	17.517	7018.948	ng/L	
Hg2600-2	BC	SAM	1706935-13	400	7/17/2017 10:07:14	81270-1.RAW	10:07:14 AM	7051.18		1	7013.0	25.693	10277.308	ng/L	
Hg2600-2	BC	SAM	1706935-14	400	7/17/2017 10:11:22	81271-1.RAW	10:11:22 AM	6924.92		1	6906.7	25.304	10121.517	ng/L	
Hg2600-2	BC	SAM	1706935-15	400	7/17/2017 10:15:31	81272-1.RAW	10:15:31 AM	6366.91		1	6378.7	23.369	9347.614	ng/L	
Hg2600-2	BC	SAM	1706936-01	400	7/17/2017 10:19:39	81273-1.RAW	10:19:39 AM	3728.74		1	3710.6	13.591	5436.380	ng/L	
Hg2600-2	BC	SAM	1706936-02	400	7/17/2017 10:23:48	81274-1.RAW	10:23:48 AM	10755.70		1	10737.5	39.343	15737.104	ng/L	
Hg2600-2	BC	SAM	1706936-03	400	7/17/2017 10:27:56	81275-1.RAW	10:27:56 AM	11913.88		1	11895.7	43.587	17434.879	ng/L	
Hg2600-2	BC	SAM	1706936-04	400	7/17/2017 10:32:04	81276-1.RAW	10:32:04 AM	8630.49		1	8612.3	33.564	5585.534	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	7/17/2017 10:36:13	81277-1.RAW	10:36:13 AM	1517.96			1499.7	5.496	5.496	ng/L	
Hg2600-2	BC	CAL	SEQ-CCR2	1	7/17/2017 10:40:21	81278-1.RAW	10:40:21 AM	92.44			74.3	0.272	0.272	ng/L	
Hg2600-2	BC	SAM	1706936-05	400	7/17/2017 10:44:31	81279-1.RAW	10:44:31 AM	1347.41		1	1329.2	4.864	1945.621	ng/L	
Hg2600-2	BC	SAM	1706936-06	400	7/17/2017 10:48:50	81280-1.RAW	10:48:50 AM	11446.59		1	11428.4	41.875	16749.670	ng/L	
Hg2600-2	BC	SAM	1706937-01	400	7/17/2017 10:53:00	81281-1.RAW	10:53:08 AM	10378.06		1	10357.9	37.951	15180.595	ng/L	
Hg2600-2	BC	SAM	1706937-03	400	7/17/2017 10:57:18	81282-1.RAW	10:57:16 AM	6046.25		1	6028.1	22.084	8833.585	ng/L	
Hg2600-2	BC	SAM	1706937-04	400	7/17/2017 11:01:25	81283-1.RAW	11:01:25 AM	17572.75		1	17554.1	64.323	25729.391	ng/L	
Hg2600-2	BC	SAM	1706937-05	400	7/17/2017 11:05:33	81284-1.RAW	11:05:33 AM	4750.23		1	4732.1	17.334	6933.768	ng/L	
Hg2600-2	BC	SAM	1706937-08	400	7/17/2017 11:09:41	81285-1.RAW	11:09:41 AM	8980.43		1	8962.3	23.507	10202.988	ng/L	
Hg2600-2	BC	SAM	1706938-03RE1	1000	7/17/2017 11:13:50	81286-1.RAW	11:13:50 AM	5994.48		1	5976.3	21.899	21898.576	ng/L	
Hg2600-2	BC	SAM	1706938-04RE1	400	7/17/2017 11:17:56	81287-1.RAW	11:17:58 AM	3872.28		1	3854.1	14.117	5646.793	ng/L	
Hg2600-2	BC	SAM	F707329-DUP1	400	7/17/2017 11:22:07	81288-1.RAW	11:22:07 AM	6658.60		1	6640.6	24.329	9731.515	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	7/17/2017 11:26:15	81289-1.RAW	11:26:15 AM	1558.12			1539.9	5.643	5.643	ng/L	
Hg2600-2	BC	CAL	SEQ-CCR3	1	7/17/2017 11:30:24	81290-1.RAW	11:30:24 AM	99.33			81.2	0.297	0.297	ng/L	
Hg2600-2	BC	SAM	F707329-MS1	400	7/17/2017 11:34:32	81291-1.RAW	11:34:32 AM	7000.49		1	6982.3	25.581	10232.394	ng/L	
Hg2600-2	BC	SAM	F707329-MSD1	400	7/17/2017 11:38:41	81292-1.RAW	11:38:41 AM	5345.47		1	5327.3	19.516	7806.322	ng/L	
Hg2600-2	BC	SAM	F707329-MS2	400	7/17/2017 11:42:49	81293-1.RAW	11:42:49 AM	7051.89		1	7033.7	25.769	10307.740	ng/L	
Hg2600-2	BC	SAM	F707329-MSD2	400	7/17/2017 11:46:57	81294-1.RAW	11:46:57 AM	6943.65		1	6925.5	25.373	10149.072	ng/L	
Hg2600-2	BC	SAM	1706936-06RE1	1000	7/17/2017 11:50:58	81295-1.RAW	11:50:58 AM	5092.64		1	5074.4	18.590	18593.222	ng/L	
Hg2600-2	BC	SAM	1706937-01RE1	1000	7/17/2017 12:04:06	81296-1.RAW	12:04:06 PM	4225.02		1	4206.8	15.414	15414.008	ng/L	
Hg2600-2	BC	SAM	1706937-04RE1	1000	7/17/2017 12:08:15	81297-1.RAW	12:08:15 PM	6941.13		1	6923.0	25.368	25367.779	ng/L	
Hg2600-2	BC	SAM	1706937-05RE1	400	7/17/2017 12:12:23	81298-1.RAW	12:12:23 PM	4692.48		1	4574.3	16.756	6707.525	ng/L	
Hg2600-2	BC	SAM	F707329-DUP2	4000	7/17/2017 12:16:32	81299-1.RAW	12:16:32 PM	4734.51		1	4716.3	17.281	17281.144	ng/L	
Hg2600-2	BC	BLK	F707329-BLK1	20	7/17/2017 12:20:40	81300-1.RAW	12:20:40 PM	136.11		2	117.9	0.432	8.644	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-CCV4	1	7/17/2017 12:24:48	81301-1.RAW	12:24:49 PM	1488.93			1470.8	5.390	5.390	ng/L	
Hg2600-2	BC	CAL	SFQ-CGR4	1	7/17/2017 12:28:57	81302-1.RAW	12:28:57 PM	88.88			70.7	0.259	0.259	ng/L	
Hg2600-2	BC	BLK	F707330-BLK2	20	7/17/2017 12:33:05	81303-1.RAW	12:33:05 PM	75.33	2		57.2	0.209	4.189	ng/L	
Hg2600-2	BC	BLK	F707330-BLK3	20	7/17/2017 12:37:14	81304-1.RAW	12:37:14 PM	62.14	2		44.0	0.161	3.273	ng/L	
Hg2600-2	BC	SAM	F707330-BS1	20	7/17/2017 12:41:22	81305-1.RAW	12:41:22 PM	1310.13	2		1292.0	4.467	89.341	ng/L	
Hg2600-2	BC	SAM	F707330-BSD1	20	7/17/2017 12:45:31	81306-1.RAW	12:45:31 PM	1535.78	2		1317.6	4.561	91.221	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 12:56:10	81307-1.RAW	12:56:10 PM	156.74	x		138.6	0.508	0.000	ng/L	
Hg2600-2	BC	SAM	1706937-02	400	7/17/2017 13:00:18	81308-1.RAW	1:00:18 PM	4734.72	2		4716.5	17.271	6908.569	ng/L	
Hg2600-2	DC	SAM	1706937-07	400	7/17/2017 13:04:26	81309-1.RAW	1:04:26 PM	6324.36	2		6306.2	23.007	9238.800	ng/L	
Hg2600-2	BC	SAM	1706937-08	400	7/17/2017 13:08:35	81310-1.RAW	1:08:35 PM	6515.76	2		6497.6	23.798	9519.371	ng/L	
Hg2600-2	BC	SAM	1706937-09	400	7/17/2017 13:12:43	81311-1.RAW	1:12:43 PM	3108.27	2		3088.1	11.304	4521.447	ng/L	
Hg2600-2	BC	SAM	1706937-10	400	7/17/2017 13:16:52	81312-1.RAW	1:16:52 PM	2719.49	2		2701.3	9.886	3954.471	ng/L	
Hg2600-2	BC	SAM	1706937-11	400	7/17/2017 13:21:00	81313-1.RAW	1:21:00 PM	3678.83	2		3660.7	13.402	5360.754	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	7/17/2017 13:25:08	81314-1.RAW	1:25:08 PM	1485.47			1467.3	5.377	5.377	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	7/17/2017 13:29:17	81315-1.RAW	1:29:17 PM	85.21			67.0	0.246	0.246	ng/L	
Hg2600-2	BC	SAM	1706937-12	400	7/17/2017 13:33:25	81316-1.RAW	1:33:25 PM	8466.75	2		8448.6	30.948	12379.301	ng/L	
Hg2600-2	BC	SAM	1706937-13	400	7/17/2017 13:37:34	81317-1.RAW	1:37:34 PM	8904.13	2		8886.0	32.551	13070.450	ng/L	
Hg2600-2	BC	SAM	1706937-14	400	7/17/2017 13:41:42	81318-1.RAW	1:41:42 PM	10834.90	2		10816.7	39.627	15850.739	ng/L	
Hg2600-2	BC	SAM	1706937-15	400	7/17/2017 13:45:50	81319-1.RAW	1:45:50 PM	11918.84	2		11900.7	43.599	17439.672	ng/L	
Hg2600-2	DC	SAM	1706938-01	400	7/17/2017 13:49:59	81320-1.RAW	1:49:59 PM	17171.50	2		17103.3	62.665	25066.180	ng/L	
Hg2600-2	BC	SAM	1706938-02	400	7/17/2017 13:54:07	81321-1.RAW	1:54:07 PM	18847.03	2		18828.9	68.989	27595.610	ng/L	
Hg2600-2	DC	SAM	1706938-03	400	7/17/2017 13:58:16	81322-1.RAW	1:58:16 PM	29097.87	2		29079.7	106.555	42622.176	ng/L	
Hg2600-2	BC	SAM	1706938-04	400	7/17/2017 14:02:24	81323-1.RAW	2:02:24 PM	2468.59	2		2450.4	8.957	3586.680	ng/L	
Hg2600-2	BC	SAM	1706938-05	400	7/17/2017 14:06:33	81324-1.RAW	2:06:33 PM	4337.37	2		4319.2	15.815	6326.039	ng/L	
Hg2600-2	BC	SAM	1706938-06	400	7/17/2017 14:10:42	81325-1.RAW	2:10:42 PM	40088.58	2		40070.4	146.833	56733.307	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	7/17/2017 14:14:50	81326-1.RAW	2:14:50 PM	1826.87			1808.7	6.628	6.628	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	7/17/2017 14:18:59	81327-1.RAW	2:18:59 PM	197.42			179.2	0.657	0.657	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 14:23:42	81328-1.RAW	2:23:42 PM	160.30	x		142.1	0.521	0.000	ng/L	
Hg2600-2	BC	SAM	clean		7/17/2017 14:27:50	81329-1.RAW	2:27:50 PM	108.70	x		90.5	0.332	0.000	ng/L	
Hg2600-2	BC	SAM	clean		7/17/2017 14:30:41	81330-1.RAW	2:30:41 PM	35.50	x		17.3	0.063	0.000	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 14:34:50	81331-1.RAW	2:34:50 PM	104.16	x		86.0	0.315	0.000	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	7/17/2017 14:38:59	81332-1.RAW	2:38:59 PM	1437.53			1419.4	5.202	5.202	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	7/17/2017 14:43:08	81333-1.RAW	2:43:08 PM	75.53			61.4	0.225	0.225	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8	1	7/17/2017 14:47:16	81334-1.RAW	2:47:16 PM	1419.58			1401.4	5.136	5.136	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB8	1	7/17/2017 14:51:25	81335-1.RAW	2:51:25 PM	72.31			54.1	0.198	0.198	ng/L	
Hg2600-2	BC	SAM	1706939-01	400	7/17/2017 14:55:33	81336-1.RAW	2:55:33 PM	742.84	2		724.7	2.642	1056.927	ng/L	
Hg2600-2	BC	SAM	1706939-02	400	7/17/2017 14:59:42	81337-1.RAW	2:59:42 PM	1669.77	2		1651.6	6.039	2415.701	ng/L	
Hg2600-2	BC	SAM	1706939-03	400	7/17/2017 15:03:50	81338-1.RAW	3:03:50 PM	1224.06	2		1205.9	4.406	1762.341	ng/L	
Hg2600-2	BC	SAM	1706939-05	400	7/17/2017 15:07:58	81339-1.RAW	3:07:58 PM	1646.57	2		1628.4	5.954	2381.692	ng/L	
Hg2600-2	BC	SAM	1706937-15RF1	1000	7/17/2017 15:12:06	81340-1.RAW	3:12:06 PM	4970.03	2		4951.9	18.142	18141.795	ng/L	
Hg2600-2	BC	SAM	1706938-01RF1	2500	7/17/2017 15:16:15	81341-1.RAW	3:16:15 PM	2899.89	2		2861.7	10.559	26396.328	ng/L	
Hg2600-2	BC	SAM	1706938-02RF1	2500	7/17/2017 15:20:23	81342-1.RAW	3:20:23 PM	3268.93	2		3250.8	11.911	29777.395	ng/L	
Hg2600-2	BC	SAM	1706938-03RF1	2500	7/17/2017 15:24:31	81343-1.RAW	3:24:31 PM	4860.19	2		4842.0	17.742	44356.184	ng/L	
Hg2600-2	BC	SAM	1706938-04RF1	400	7/17/2017 15:28:39	81344-1.RAW	3:28:39 PM	2227.78	2		2209.6	8.084	3233.680	ng/L	
Hg2600-2	BC	SAM	1706938-06RF1	2500	7/17/2017 15:32:47	81345-1.RAW	3:32:47 PM	6409.47	2		6391.2	23.420	58549.902	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV9	1	7/17/2017 15:36:55	81346-1.RAW	3:36:55 PM	1517.20			1499.0	5.494	5.494	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB9	1	7/17/2017 15:40:63	81347-1.RAW	3:40:63 PM	105.90			87.7	0.321	0.321	ng/L	
Hg2600-2	BC	SAM	F707330-DUP1	400	7/17/2017 15:44:71	81348-1.RAW	3:44:71 PM	1598.17	2		1580.0	5.777	2310.743	ng/L	
Hg2600-2	BC	SAM	F707330-MS1	400	7/17/2017 15:48:79	81349-1.RAW	3:48:79 PM	9158.45	2		9140.3	33.483	13393.254	ng/L	
Hg2600-2	BC	SAM	F707330-MSD1	400	7/17/2017 16:00:13	81350-1.RAW	4:00:13 PM	7003.70	2		6985.5	25.587	10234.636	ng/L	
Hg2600-2	BC	SAM	F707330-MS2	400	7/17/2017 16:04:22	81351-1.RAW	4:04:22 PM	7044.42	2		7026.2	25.736	10294.327	ng/L	
Hg2600-2	BC	SAM	F707330-MSD2	400	7/17/2017 16:08:30	81352-1.RAW	4:08:30 PM	5778.84	2		5760.7	21.098	8439.130	ng/L	
Hg2600-2	BC	SAM	F707330-DUP2	2500	7/17/2017 16:12:38	81353-1.RAW	4:12:38 PM	3026.39	2		3008.2	11.022	27555.295	ng/L	
Hg2600-2	BC	SAM	WS		7/17/2017 16:16:46	81354-1.RAW	4:16:46 PM	244.31	x		226.1	0.829	0.000	ng/L	
Hg2600-2	BC	SAM	F707330-MS3	400	7/17/2017 16:20:54	81355-1.RAW	4:20:54 PM	10301.03	2		10282.9	37.670	15068.146	ng/L	
Hg2600-2	BC	SAM	F707330-MSD3	400	7/17/2017 16:25:02	81356-1.RAW	4:25:02 PM	10165.55	2		10147.4	37.174	14869.548	ng/L	
Hg2600-2	BC	SAM	F707330-MS4	400	7/17/2017 16:29:10	81357-1.RAW	4:29:10 PM	9731.32	2		9713.1	35.583	14233.016	ng/L	
Hg2600-2	BC	SAM	F707330-MSD4	400	7/17/2017 16:33:18	81358-1.RAW	4:33:18 PM	9922.38	2		9904.2	36.263	14513.089	ng/L	
Hg2600-2	BC	CAL	SFQ-CCVA	1	7/17/2017 16:37:26	81359-1.RAW	4:37:26 PM	1569.57			1551.4	5.685	5.685	ng/L	
Hg2600-2	BC	CAL	SEQ-CCBA	1	7/17/2017 16:41:34	81360-1.RAW	4:41:34 PM	140.38			122.2	0.448	0.448	ng/L	

TotalMercury EPA1631
 Operati BC
 Worksh THg260
 Method #####
 R: 1
 R²: 0.9999
 BlankS: 18.173
 CalibEqn: Conc = (Area-18.17
 QC Warnings:14/QC
 Run Date: 7/17/2017
 Run Time: 16:15:39
 Blank SD: 2.434709458
 Blank RSD%: 13.39747457
 CF SD: 14.30995186
 CF RSD%: 5.24414249

Sample/ID	Location Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean			0.00	12.30					81239-1.RAW	7:41:32	3355.40	Clean	OK	1
clean			0.00	0.00					81240-1.RAW	7:44:23	0.79	Clean	OK	1
ws			18.17	0.04					81241-1.RAW	7:48:31	28.44	Sample	OK	1
ws			18.17	0.01					81242-1.RAW	7:52:40	19.65	Sample	OK	1
ws			18.17	0.01					81243-1.RAW	7:56:48	19.57	Sample	OK	1
SEQ-IBL1	A1	1	0.00	0.08					81244-1.RAW	8:00:57	20.93	Sample	OK	1
SEQ-IBL 2	A2	1	0.00	0.08					81245-1.RAW	8:05:05	16.33	Sample	OK	1
SEQ-IBL3	A3	1	0.00	0.06					81246-1.RAW	8:09:14	17.26	Sample	OK	1
SEQ-CAL1	A4	1	18.17	0.53			106.94		81247-1.RAW	8:13:22	164.07	Sample	OK	1
SEQ-CAL2	A5	1	18.17	1.04			103.86		81248-1.RAW	8:17:30	301.59	Sample	OK	1
SEQ-CAL3	A6	1	18.17	4.93			98.51		81249-1.RAW	8:21:39	1362.29	Sample	OK	1
SEQ-CAL4	A7	1	18.17	18.90			94.52		81250-1.RAW	8:25:47	5176.52	Sample	OK	1
SEQ-CAL5	A8	1	18.17	38.47			96.17		81251-1.RAW	8:29:56	10514.64	Sample	FB	1
SEQ-ICV1	A9	1	18.17	5.27			105.32		81252-1.RAW	8:34:04	1455.14	Sample	OK	1
ws			18.17	0.56					81253-1.RAW	8:46:45	172.09	Sample	OK	1
EFGS07217 TV:A10		2500	18.17	25309.41					81254-1.RAW	8:50:54	2780.69	Sample	OK	1
EFGS08672 TV:A11		2500	18.17	25428.46					81255-1.RAW	8:55:02	2793.69	Sample	OK	1
F707329-BLK1	A12	20	18.17	4.19					81256-1.RAW	8:59:11	75.39	Sample	OK	1
F707329-BLK2	A13	20	18.17	2.28					81257-1.RAW	9:03:19	49.24	Sample	OK	1
F707329-BLK3	A14	20	18.17	2.19					81258-1.RAW	9:07:27	48.12	Sample	OK	1
F707329-BS1	A15	20	18.17	97.15					81259-1.RAW	9:11:36	1343.60	Sample	OK	1
F707329-BSD1	A16	20	18.17	96.95					81260-1.RAW	9:15:44	1340.88	Sample	OK	1
1706935-01	A17	400	18.17	5563.14					81261-1.RAW	9:19:53	3813.28	Sample	OK	1
1706935-08	A18	400	18.17	8371.10					81262-1.RAW	9:24:01	5726.83	Sample	OK	1
1706935-09	A19	400	18.17	5389.17					81263-1.RAW	9:28:09	3694.59	Sample	OK	1
SEQ-CCV1	A20	1	18.17	5.23			104.63		81264-1.RAW	9:32:18	1445.78	Sample	OK	1
SEQ-CCB1	A21	1	18.17	0.19			0.00		81265-1.RAW	9:36:26	68.85	Sample	OK	1
WS			18.17	0.54					81266-1.RAW	9:50:40	166.03	Sample	OK	1
1706935-10	B1	400	18.17	2380.62					81267-1.RAW	9:54:49	1642.20	Sample	OK	1
1706935-11	B2	400	18.17	8760.45					81268-1.RAW	9:58:57	5994.44	Sample	OK	1
1706935-12	B3	400	18.17	7021.67					81269-1.RAW	10:03:05	4808.27	Sample	OK	1
1706935-13	B4	400	18.17	10280.11					81270-1.RAW	10:07:14	7031.13	Sample	FB	1
1706935-14	B5	400	18.17	10124.41					81271-1.RAW	10:11:22	6924.92	Sample	OK	1
1706935-15	B6	400	18.17	9350.41					81272-1.RAW	10:15:31	6396.91	Sample	OK	1
1706936-01	B7	400	18.17	5439.22					81273-1.RAW	10:19:39	3728.74	Sample	OK	1
1706936-02	B8	400	18.17	15739.85					81274-1.RAW	10:23:48	10755.70	Sample	OK	1
1706936-03	B9	400	18.17	17437.61					81275-1.RAW	10:27:56	11913.89	Sample	OK	1
1706936-04	B10	400	18.17	5588.37					81276-1.RAW	10:32:04	3830.49	Sample	OK	1
SEQ-CCV2	B11	1	18.17	5.50			109.92		81277-1.RAW	10:36:13	1517.85	Sample	OK	1
SEQ-CCB2	B12	1	18.17	0.27			0.00		81278-1.RAW	10:40:21	92.44	Sample	OK	1
1706936-05	B13	400	18.17	1948.49					81279-1.RAW	10:44:51	1347.41	Sample	OK	1
1706936-06	B14	400	18.17	16752.60					81280-1.RAW	10:48:59	11446.59	Sample	OK	1
1706937-01	B15	400	18.17	15183.34					81281-1.RAW	10:53:08	10376.06	Sample	OK	1
1706937-03	B16	400	18.17	8836.40					81282-1.RAW	10:57:16	6046.25	Sample	OK	1

1706937-04	B17	400	18.17	25732.04		81283-1.RAW	11:01:25	17572.25	Sample	OK	1
1706937-05	B18	400	18.17	6938.60		81284-1.RAW	11:05:33	4750.23	Sample	OK	1
1706937-06	B19	400	18.17	10205.78		81285-1.RAW	11:09:41	6980.43	Sample	OK	1
1706936-03RE1	B20	1000	18.17	21901.28		81286-1.RAW	11:13:50	5994.48	Sample	FB	1
1706936-04RE1	B21	400	18.17	5649.62		81287-1.RAW	11:17:58	3872.28	Sample	OK	1
F707329-DUP1	C1	400	18.17	9734.32		81288-1.RAW	11:22:07	6658.80	Sample	OK	1
SEQ-CCV3	C2	1	18.17	5.64	112.87	81289-1.RAW	11:26:15	1558.12	Sample	OK	1
SEQ-CCB3	C3	1	18.17	0.30	0.00	81290-1.RAW	11:30:24	99.33	Sample	OK	1
F707329-MS1	C4	400	18.17	10235.19	788897.71	81291-1.RAW	11:34:32	7000.49	Sample	OK	1
F707329-MSD1	C5	400	18.17	7809.13		81292-1.RAW	11:38:41	5345.47	Sample	OK	1
F707329-MS2	C6	400	18.17	10310.53	132.00	81293-1.RAW	11:42:49	7051.89	Sample	OK	1
F707329-MSD2	C7	400	18.17	10151.87		81294-1.RAW	11:46:57	6943.65	Sample	OK	1
1706936-06RE1	C8	1000	18.17	18595.94		81295-1.RAW	11:59:58	5092.54	Sample	OK	1
1706937-01RE1	C9	1000	18.17	15416.77		81296-1.RAW	12:04:06	4225.02	Sample	OK	1
1706937-04RE1	C10	1000	18.17	25370.44		81297-1.RAW	12:08:15	6941.13	Sample	OK	1
1706937-05RE1	C11	400	18.17	6705.36		81298-1.RAW	12:12:23	4592.48	Sample	OK	1
F707329-DUP2	C12	1000	18.17	17283.87		81299-1.RAW	12:16:32	4734.51	Sample	OK	1
F707330-BLK1	C13	20	18.17	8.64		81300-1.RAW	12:20:40	136.11	Sample	OK	1
SEQ-CCV4	C14	1	18.17	5.39	107.80	81301-1.RAW	12:24:49	1488.93	Sample	OK	1
SEQ-CCB4	C15	1	18.17	0.26	0.00	81302-1.RAW	12:28:57	88.88	Sample	OK	1
F707330-BLK2	C16	20	18.17	4.19		81303-1.RAW	12:33:05	75.33	Sample	OK	1
F707330-BLK3	C17	20	18.17	3.22		81304-1.RAW	12:37:14	62.14	Sample	OK	1
F707330-BS1	C18	20	18.17	94.69		81305-1.RAW	12:41:22	1310.13	Sample	OK	1
F707330-BSD1	C19	20	18.17	96.57		81306-1.RAW	12:45:31	1335.78	Sample	OK	1
ws			18.17	0.51		81307-1.RAW	12:56:10	156.74	Sample	OK	1
1706937-02	C20	400	18.17	6913.86		81308-1.RAW	13:00:18	4734.72	Sample	OK	1
1706937-07	C21	400	18.17	9244.07		81309-1.RAW	13:04:26	6324.36	Sample	OK	1
1706937-08	A1	400	18.17	9524.63		81310-1.RAW	13:08:35	6515.76	Sample	OK	1
1706937-09	A2	400	18.17	4526.75		81311-1.RAW	13:12:43	3106.27	Sample	OK	1
1706937-10	A3	400	18.17	3959.79		81312-1.RAW	13:16:52	2719.49	Sample	OK	1
1706937-11	A4	400	18.17	5366.06		81313-1.RAW	13:21:00	3878.83	Sample	OK	1
SEQ-CCV5	A5	1	18.17	5.38	107.54	81314-1.RAW	13:25:08	1485.47	Sample	OK	1
SEQ-CCB5	A6	1	18.17	0.25	0.00	81315-1.RAW	13:29:17	85.21	Sample	OK	1
1706937-12	A7	400	18.17	12384.51		81316-1.RAW	13:33:25	8466.75	Sample	OK	1
1706937-13	A8	400	18.17	13025.68		81317-1.RAW	13:37:34	8904.13	Sample	OK	1
1706937-14	A9	400	18.17	15855.95		81318-1.RAW	13:41:42	10834.90	Sample	FB	1
1706937-15	A10	400	18.17	17444.86		81319-1.RAW	13:45:50	11918.84	Sample	FB	1
1706938-01	A11	400	18.17	25071.31		81320-1.RAW	13:49:59	17121.50	Sample	FB	1
1706938-02	A12	400	18.17	27600.71		81321-1.RAW	13:54:07	18847.03	Sample	OK	1
1706938-03	A13	400	18.17	42627.14		81322-1.RAW	13:58:16	29097.87	Sample	FB	1
1706938-04	A14	400	18.17	3591.99		81323-1.RAW	14:02:24	2468.59	Sample	OK	1
1706938-05	A15	400	18.17	6331.40		81324-1.RAW	14:06:33	4337.37	Sample	OK	1
1706938-06	A16	400	18.17	58738.12		81325-1.RAW	14:10:42	40088.58	Sample	FB	1
SEQ-CCV6	A17	1	18.17	6.63	132.57	81326-1.RAW	14:14:50	1826.87	Sample	OK	1
SEQ-CCB6	A18	1	18.17	0.66	0.00	81327-1.RAW	14:18:59	197.42	Sample	OK	1
ws			18.17	0.52		81328-1.RAW	14:23:42	160.30	Sample	OK	1
ws			18.17	0.33		81329-1.RAW	14:27:50	108.70	Sample	OK	1
clean			0.00	0.13		81330-1.RAW	14:30:41	35.50	Clean	OK	1
ws			18.17	0.32		81331-1.RAW	14:34:50	104.16	Sample	OK	1

SEQ-CCV7	C1	1	18.17	5.20	104.03	81332-1.RAW	14:38:59	1437.53	Sample	OK	1
SEQ-CCB7	C2	1	18.17	0.22	0.00	81333-1.RAW	14:43:08	79.53	Sample	OK	1
SEQ-CCV8	C3	1	18.17	5.14	102.71	81334-1.RAW	14:47:16	1419.58	Sample	OK	1
SEQ-CCB8	C4	1	18.17	0.20	0.00	81335-1.RAW	14:51:25	72.31	Sample	OK	1
1706939-01	A19	400	18.17	1062.26		81336-1.RAW	14:55:33	742.84	Sample	OK	1
1706939-02	A20	400	18.17	2421.02		81337-1.RAW	14:59:42	1669.77	Sample	OK	1
1706939-03	A21	400	18.17	1767.68		81338-1.RAW	15:03:50	1224.06	Sample	OK	1
1706939-05	B1	400	18.17	2387.03		81339-1.RAW	15:07:58	1646.57	Sample	OK	1
1706937-15RE1	B2	1000	18.17	18146.99		81340-1.RAW	15:18:49	4970.03	Sample	OK	1
1706938-01RE1	B3	2500	18.17	26401.49		81341-1.RAW	15:22:57	2899.89	Sample	OK	1
1706938-02RE1	B4	2500	18.17	29782.44		81342-1.RAW	15:27:06	3268.93	Sample	OK	1
1706938-03RE1	B5	2500	18.17	44361.15		81343-1.RAW	15:31:14	4860.19	Sample	OK	1
1706938-04RE1	B6	400	18.17	3239.00		81344-1.RAW	15:35:23	2227.78	Sample	OK	1
1706938-06RE1	B7	2500	18.17	58554.77		81345-1.RAW	15:39:31	6409.42	Sample	OK	1
SEQ-CCV9	B8	1	18.17	5.49	109.87	81346-1.RAW	15:43:40	1517.20	Sample	OK	1
SEQ-CCB9	B9	1	18.17	0.32	0.00	81347-1.RAW	15:47:48	105.90	Sample	OK	1
F707330-DUP1	B10	400	18.17	2316.07		81348-1.RAW	15:51:56	1598.17	Sample	OK	1
F707330-MS1	B11	400	18.17	13398.49	578.25	81349-1.RAW	15:56:05	9158.45	Sample	OK	1
F707330-MSD1	B12	400	18.17	10239.89		81350-1.RAW	16:00:13	7003.70	Sample	OK	1
F707330-MS2	B13	400	18.17	10299.59	100.56	81351-1.RAW	16:04:22	7044.42	Sample	OK	1
F707330-MSD2	B14	400	18.17	8444.41		81352-1.RAW	16:08:30	5778.84	Sample	OK	1
F707330-DUP2	B15	2500	18.17	27560.42		81353-1.RAW	16:12:38	3026.39	Sample	OK	1
WS			18.17	0.83		81354-1.RAW	16:19:48	244.31	Sample	OK	1
F707330-MS3	B16	400	18.17	15073.37	393691.03	81355-1.RAW	16:23:56	10301.03	Sample	FB	1
F707330-MSD3	B17	400	18.17	14874.76		81356-1.RAW	16:28:04	10165.55	Sample	OK	1
F707330-MS4	B18	400	18.17	14238.24	95.70	81357-1.RAW	16:32:13	9731.32	Sample	OK	1
F707330-MSD4	B19	400	18.17	14518.31		81358-1.RAW	16:36:21	9922.38	Sample	OK	1
SEQ-CCVA	B20	1	18.17	5.69		81359-1.RAW	16:40:30	1569.57	Sample	OK	1
SEQ-CCBA	B21	1	18.17	0.45		81360-1.RAW	16:44:38	140.38	Sample	OK	1

ANALYSIS SEQUENCE

7G18008



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G18008-IBL1	QC	1			
7G18008-IBL2	QC	2			
7G18008-IBL3	QC	3			
7G18008-CAL1	QC	4	1702602		
7G18008-CAL2	QC	5	1702603		
7G18008-CAL3	QC	6	1702604		
7G18008-CAL4	QC	7	1702605		
7G18008-CAL5	QC	8	1702606		
7G18008-ICV1	QC	9	1703679		
F707329-BLK1	QC	10			
F707329-BLK2	QC	11			
F707329-BLK3	QC	12			
F707329-BS1	QC	13			
F707329-BSD1	QC	14			
1706935-01	Hg-CVAFS-T-7030	15			
1706935-08	Hg-CVAFS-T-7030	16			
1706935-09	Hg-CVAFS-T-7030	17			
7G18008-CCV1	QC	18	1703679		
7G18008-CCB1	QC	19			
1706935-10	Hg-CVAFS-T-7030	20			
1706935-11	Hg-CVAFS-T-7030	21			
1706935-12	Hg-CVAFS-T-7030	22			
1706935-13	Hg-CVAFS-T-7030	23			
1706935-14	Hg-CVAFS-T-7030	24			
1706935-15	Hg-CVAFS-T-7030	25			
1706936-01	Hg-CVAFS-T-7030	26			
1706936-02	Hg-CVAFS-T-7030	27			
1706936-03	Hg-CVAFS-T-7030	28			
1706936-04	Hg-CVAFS-T-7030	29			
7G18008-CCV2	QC	30	1703679		
7G18008-CCB2	QC	31			
1706936-05	Hg-CVAFS-T-7030	32			
1706936-06	Hg-CVAFS-T-7030	33			
1706937-01	Hg-CVAFS-T-7030	34			
1706937-03	Hg-CVAFS-T-7030	35			

Duc Date: 7/31/2017

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ANALYSIS SEQUENCE

7G18008



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706937-04	Hg-CVAFS-T-7030	36			
1706937-05	Hg-CVAFS-T-7030	37			
1706937-06	Hg-CVAFS-T-7030	38			
1706936-03RE1	Hg-CVAFS-T-7030	39			Added 7/17/2017 by BC
1706936-04RE1	Hg-CVAFS-T-7030	40			Added 7/17/2017 by BC
F707329-DUP1	QC	41			
7G18008-CCV3	QC	42	1703679		
7G18008-CCB3	QC	43			
F707329-MS1	QC	44			
F707329-MSD1	QC	45			
F707329-MS2	QC	46			
F707329-MSD2	QC	47			
1706936-06RE1	Hg-CVAFS-T-7030	48			Added 7/17/2017 by BC
1706937-01RE1	Hg-CVAFS-T-7030	49			Added 7/17/2017 by BC
1706937-04RE1	Hg-CVAFS-T-7030	50			Added 7/17/2017 by BC
1706937-05RE1	Hg-CVAFS-T-7030	51			Added 7/17/2017 by BC
F707329-DUP2	QC	52			
F707330-BLK1	QC	53			
7G18008-CCV4	QC	54	1703679		
7G18008-CCB4	QC	55			
F707330-BLK2	QC	56			
F707330-BLK3	QC	57			
F707330-BS1	QC	58			
F707330-BSD1	QC	59			
1706937-02	Hg-CVAFS-T-7030	60			
1706937-07	Hg-CVAFS-T-7030	61			
1706937-08	Hg-CVAFS-T-7030	62			
1706937-09	Hg-CVAFS-T-7030	63			
1706937-10	Hg-CVAFS-T-7030	64			
1706937-11	Hg-CVAFS-T-7030	65			
7G18008-CCV5	QC	66	1703679		
7G18008-CCB5	QC	67			
1706937-12	Hg-CVAFS-T-7030	68			
1706937-13	Hg-CVAFS-T-7030	69			
1706937-14	Hg-CVAFS-T-7030	70			

Due Date: 7/31/2017

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ANALYSIS SEQUENCE

7G18008



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706937-15	Hg-CVAFS-T-7030	71			
1706938-01	Hg-CVAFS-T-7030	72			
1706938-02	Hg-CVAFS-T-7030	73			
1706938-03	Hg-CVAFS-T-7030	74			
1706938-04	Hg-CVAFS-T-7030	75			
1706938-05	Hg-CVAFS-T-7030	76			
1706938-06	Hg-CVAFS-T-7030	77			
7G18008-CCV6	QC	78	1703679		
7G18008-CCB6	QC	79			
7G18008-CCV7	QC	80	1703679		
7G18008-CCB7	QC	81			
7G18008-CCV8	QC	82	1703679		
7G18008-CCB8	QC	83			
1706939-01	Hg-CVAFS-T-7030	84			
1706939-02	Hg-CVAFS-T-7030	85			
1706939-03	Hg-CVAFS-T-7030	86			
1706939-05	Hg-CVAFS-T-7030	87			
1706937-15RE1	Hg-CVAFS-T-7030	88			Added 7/17/2017 by BC
1706938-01RE1	Hg-CVAFS-T-7030	89			Added 7/17/2017 by BC
1706938-02RE1	Hg-CVAFS-T-7030	90			Added 7/17/2017 by BC
1706938-03RE1	Hg-CVAFS-T-7030	91			Added 7/17/2017 by BC
1706938-04RE1	Hg-CVAFS-T-7030	92			Added 7/17/2017 by BC
1706938-06RE1	Hg-CVAFS-T-7030	93			Added 7/17/2017 by BC
7G18008-CCV9	QC	94	1703679		
7G18008-CCB9	QC	95			
F707330-DUP1	QC	96			
F707330-MS1	QC	97			
F707330-MSD1	QC	98			
F707330-MS2	QC	99			
F707330-MSD2	QC	100			
F707330-DUP2	QC	101			
F707330-MS3	QC	102			
F707330-MSD3	QC	103			
F707330-MS4	QC	104			
F707330-MSD4	QC	105			

Due Date: 7/31/2017

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ANALYSIS SEQUENCE

7G18008



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G18008-CCVA	QC	106	1703679		
7G18008-CCBA	QC	107			

Beating 7/18/17
Samples Loaded By Date

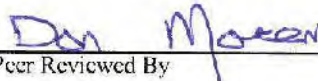
Beating 7/18/17
Data Processed By Date

Failing Data Report - 7G18008

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1706936-03	Hg-CVAFS-T-7030	4910	56.3				ng/g						FAIL-OVER	PASS	E
1706936-06	Hg-CVAFS-T-7030	6490	77.5				ng/g						FAIL-OVER	PASS	E
1706937-04	Hg-CVAFS-T-7030	4250	33.0				ng/g						FAIL-OVER	PASS	E
1706937-15	Hg-CVAFS-T-7030	3590	41.2				ng/g						FAIL-OVER	PASS	E
1706938-01	Hg-CVAFS-T-7030	5450	43.5				ng/g						FAIL-OVER	PASS	E
1706938-02	Hg-CVAFS-T-7030	5570	40.4				ng/g						FAIL-OVER	PASS	E
1706938-03	Hg-CVAFS-T-7030	8130	38.2				ng/g						FAIL-OVER	PASS	E
1706938-06	Hg-CVAFS-T-7030	6740	22.9				ng/g						FAIL-OVER	PASS	E
F707329-DUP1	Hg-CVAFS-T-7030	4115	84.6	6169	6169		ug/g				39.9	24.00	PASS-OVER	FAIL-DUP	QR-07
F707329-MSD2	Hg-CVAFS-T-7030	6096	120	4259	2683	3009.0	ng/g	113	71.00	125.00	39.3	24.00	PASS-OVER	FAIL-MSD (RPD)	QR-08
7G18008-CCV6	Hg-CVAFS-T-7030	6.628	1.000			5.0000	ng/L	133	77.00	123.00			PASS-OVER	FAIL-CCV	FE 447/95.5
F707330-DUP1	Hg-CVAFS-T-7030	778.0	67.3	6016	6016		ng/g				154	24.00	PASS-OVER	FAIL-DUP	QR-07



 Analyst Reviewed By _____ Date 7/18/17



 Peer Reviewed By _____ Date 7/18/17

PREPARATION BENCH SHEET

F707330

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707330-BLK1	Blank	0.25	20					
F707330-BLK2	Blank	0.25	20					
F707330-BLK3	Blank	0.25	20					
F707330-BS1	LCS	0.25	20	1702555	20			
F707330-BSD1	LCS Dup	0.25	20	1702555	20			
F707330-DUP1	Duplicate [1706938-02RE1]	0.0594	20					
F707330-DUP2	AD [1706938-02RE1]	0.099	20					
F707330-MS1	Matrix Spike [1706937-02]	0.0562	20	1700685	100			
F707330-MS2	Matrix Spike [1706938-05]	0.0216	20	1700685	100			
F707330-MS3	AS [1706937-02]	0.00028875	0.125	1702556	100			[Spk] 0.0462g->20mL; 40mL->40mL; Spiked 0.125mL
F707330-MS4	AS [1706938-05]	0.0001575	0.125	1702556	100			[Spk] 0.0252g->20mL; 40mL->40mL; Spiked 0.125mL
F707330-MSD1	Matrix Spike Dup [1706937-02]	0.0273	20	1700685	100			
F707330-MSD2	Matrix Spike Dup [1706938-05]	0.0126	20	1700685	100			
F707330-MSD3	ASD [1706937-02]	0.00028875	0.125	1702556	100			[Spk] 0.0462g->20mL; 40mL->40mL; Spiked 0.125mL
F707330-MSD4	ASD [1706938-05]	0.0001575	0.125	1702556	100			[Spk] 0.0252g->20mL; 40mL->40mL; Spiked 0.125mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1702556	THg 10ng/mL Calibration Standard	26-Jul-17 00:00	1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703702	THg Dilute 1% BrCl	21-Dec-17 00:00
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00
			1704212	5% BrCl	18-Dec-17 00:00

PREPARATION BENCH SHEET

F707330

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs	Raw Data	Sample Comments	Analysis Comments
1706937-02	MMSW-C_17MN008_061917_NSS_02_BL	0.0462	20	QC	-	-	MS/MSD	
1706937-07	MMSW-C_17MN016_062017_NSS_07_BL	0.0842	20	-	-	-		
1706937-08	MMSW-C_17MN015_062017_NSS_08_BL	0.0826	20	-	-	-		
1706937-09	MMSW-C_17MN010_062017_NSS_09_BL	0.0377	20	-	-	-		
1706937-10	MMSW-C_17MN021_062317_NSS_10_BL	0.037	20	-	-	-		
1706937-11	MMSW-C_17MN027_062317_NSS_11_BL	0.0566	20	-	-	-		
1706937-12	MMSW-C_17MN026_062317_NSS_12_BL	0.0494	20	-	-	-		
1706937-13	MMSW-C_17MN027_062317_NSS_13_BL	0.0794	20	-	-	-		
1706937-14	MMSW-C_17MN027_062517_NSS_14_BL	0.0719	20	-	-	-		
1706937-15	MMSW-C_17MN027_062517_NSS_15_BL	0.0971	20	-	-	-		
1706937-15RE1	MMSW-C_17MN027_062517_NSS_15_BL	0.0971	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706938-01	MMSW-C_17MN009_061917_RWB_01_BL	0.092	20	-	-	-		
1706938-01RE1	MMSW-C_17MN009_061917_RWB_01_BL	0.092	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706938-02	MMSW-C_17MN022_062317_RWB_02_BL	0.099	20	-	-	-		
1706938-02RE1	MMSW-C_17MN022_062317_RWB_02_BL	0.099	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706938-03	MMSW-C_17MN020_062317_RWB_03_BL	0.1048	20	-	-	-		
1706938-03RE1	MMSW-C_17MN020_062317_RWB_03_BL	0.1048	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706938-04	MMSW-C_17MN020_062317_RWB_04_BL	0.063	20	-	-	-		
1706938-04RE1	MMSW-C_17MN020_062317_RWB_04_BL	0.063	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707330

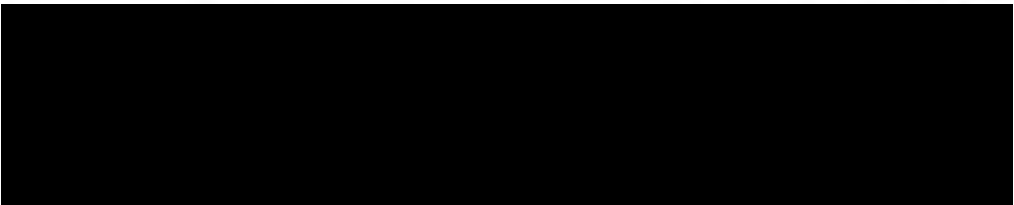
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

1706938-05	MMSW-C_17MN036_062517_RWB_05_BL	0.0252	20	QC	-	-	MS/MSD	
1706938-06	MMSW-C_17MN036_062617_RWB_06_BL	0.1743	20	-	-	-		
1706938-06RE1	MMSW-C_17MN036_062617_RWB_06_BL	0.1743	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706939-01	ADD-01_17MN001_062117_NSS_01_BL	0.0416	20	-	-	-		
1706939-02	ADD-01_17MN001_062117_NSS_02_BL	0.093	20	-	-	-		
1706939-03	ADD-01_17MN001_062117_NSS_03_BL	0.1031	20	-	-	-		
1706939-05	ADD-01_17MN006_062117_NSS_05_BL	0.1025	20	-	-	-		



PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707329-BLK1	Blank	0.25	20					
F707329-BLK2	Blank	0.25	20					
F707329-BLK3	Blank	0.25	20					
F707329-BS1	LCS	0.25	20	1702555	20			
F707329-BSD1	LCS Dup	0.25	20	1702555	20			
F707329-DUP1	Duplicate [1706936-03RE1]	0.0473	20					
F707329-DUP2	AD [1706936-03RE1]	0.071	20					
F707329-MS1	Matrix Spike [1706935-01]	0.0454	20	1700685	100			
F707329-MS2	Matrix Spike [1706936-04RE1]	0.0484	20	1700685	100			
F707329-MSD1	Matrix Spike Dup [1706935-01]	0.0152	20	1700685	100			
F707329-MSD2	Matrix Spike Dup [1706936-04RE1]	0.0333	20	1700685	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1.000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
			1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703702	THg Dilute 1% BrCl	21-Dec-17 00:00
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00
			1704212	5% BrCl	18-Dec-17 00:00

PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706935-01	MMSE-1_17MN003_062117_NSS_01_BL	0.0474	20	QC	-	-	MS/MSD	
1706935-08	MMSE-1_17MN002_062117_NSS_08_BL	0.1063	20	-	-	-		
1706935-09	MMSE-1_17MN002_062117_NSS_09_BL	0.0591	20	-	-	-		
1706935-10	MMSE-1_17MN010_062117_NSS_10_BL	0.037	20	-	-	-		
1706935-11	MMSE-1_17MN011_062217_NSS_11_BL	0.0902	20	-	-	-		
1706935-12	MMSE-1_17MN011_062217_NSS_12_BL	0.0775	20	-	-	-		
1706935-13	MMSE-1_17MN018_062217_NSS_13_BL	0.0769	20	-	-	-		
1706935-14	MMSE-1_17MN011_062217_NSS_14_BL	0.067	20	-	-	-		
1706935-15	MMSE-1_17MN018_062217_NSS_15_BL	0.0799	20	-	-	-		
1706936-01	MMSE-1_17MN004_062117_RWB_01_BL	0.0997	20	-	-	-		
1706936-02	MMSE-1_17MN044_062717_RWB_02_BL	0.0503	20	-	-	-		
1706936-03	MMSE-1_17MN047_062717_RWB_03_BL	0.071	20	-	-	-		
1706936-03RE1	MMSE-1_17MN047_062717_RWB_03_BL	0.071	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706936-04	MMSE-1_17MN047_062717_RWB_04_BL	0.0421	20	QC	-	-	MS/MSD	
1706936-04RE1	MMSE-1_17MN047_062717_RWB_04_BL	0.0421	20	QC	-	-	MS/MSD Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706936-05	MMSE-1_17MN047_062717_RWB_05_BL	0.0339	20	-	-	-		
1706936-06	MMSE-1_17MN064_062817_RWB_06_BL	0.0516	20	-	-	-		
1706936-06RE1	MMSE-1_17MN064_062817_RWB_06_BL	0.0516	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706937-01	MMSW-C_17MN006_061917_NSS_01_BL	0.0891	20	-	-	-		

PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

1706937-01RE1	MMSW-C_17MN006_061917_NSS_01_BL	0.0891	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706937-03	MMSW-C_17MN006_061917_NSS_03_BL	0.0421	20	-	-	-		
1706937-04	MMSW-C_17MN009_061917_NSS_04_BL	0.1211	20	-	-	-		
1706937-04RE1	MMSW-C_17MN009_061917_NSS_04_BL	0.1211	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706937-05	MMSW-C_17MN009_061917_NSS_05_BL	0.0952	20	-	-	-		
1706937-05RE1	MMSW-C_17MN009_061917_NSS_05_BL	0.0952	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706937-06	MMSW-C_17MN015_062017_NSS_06_BL	0.0947	20	-	-	-		

PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707329-BLK1	Blank	0.25	20					20x
F707329-BLK2	Blank	0.25	20					20x
F707329-BLK3	Blank	0.25	20					20x
F707329-BS1	LCS	0.25	20	1702555	20			20x
F707329-BSD1	LCS Dup	0.25	20	1702555	20			20x
F707329-DUP1	Duplicate [1706936-03]	0.0473	20					400x
F707329-MS1	Matrix Spike [1706935-01]	0.0454 0.454	20	1700685	100			400x
F707329-MS2	Matrix Spike [1706936-04]	0.0484	20	1700685	100			400x
F707329-MSD1	Matrix Spike Dup [1706935-01]	0.0152	20	1700685	100			400x
F707329-MSD2	Matrix Spike Dup [1706936-04]	0.0333	20	1700685	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1.000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1704177	70/30 Digestion Acid	07-Jan-18 00:00
			1704212	5% BrCl	18-Dec-17 00:00

DUP 2 1706936-03 RE1 1000x

1703182
1703702
1703378
1704095

PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs	Raw Data	Sample Comments	Analysis Comments
1706935-01	MMSE-1_17MN003_062117_NSS_01_BL	0.0474	20	QC	-	-	MS/MSD 400x	
1706935-08	MMSE-1_17MN002_062117_NSS_08_BL	0.1063	20	-	-	-	400x	
1706935-09	MMSE-1_17MN002_062117_NSS_09_BL	0.0591	20	-	-	-	400x	
1706935-10	MMSE-1_17MN010_062117_NSS_10_BL	0.037	20	-	-	-	400x	
1706935-11	MMSE-1_17MN011_062217_NSS_11_BL	0.0902	20	-	-	-	400x	
1706935-12	MMSE-1_17MN011_062217_NSS_12_BL	0.0775	20	-	-	-	400x	
1706935-13	MMSE-1_17MN018_062217_NSS_13_BL	0.0769	20	-	-	-	400x	
1706935-14	MMSE-1_17MN011_062217_NSS_14_BL	0.067	20	-	-	-	400x	
1706935-15	MMSE-1_17MN018_062217_NSS_15_BL	0.0799	20	-	-	-	400x	
1706936-01	MMSE-1_17MN004_062117_RWB_01_BL	0.0997	20	-	-	-	400x	
1706936-02	MMSE-1_17MN044_062717_RWB_02_BL	0.0503	20	-	-	-	400x	
1706936-03	MMSE-1_17MN047_062717_RWB_03_BL	0.071	20	-	-	-	400x → 1000x	
1706936-04	MMSE-1_17MN047_062717_RWB_04_BL	0.0421	20	QC	-	-	MS/MSD: 400x → 400x	
1706936-05	MMSE-1_17MN047_062717_RWB_05_BL	0.0339	20	-	-	-	400x	
1706936-06	MMSE-1_17MN064_062817_RWB_06_BL	0.0516	20	-	-	-	400x → 1000x	
1706937-01	MMSW-C_17MN006_061917_NSS_01_BL	0.0891	20	-	-	-	400x → 1000x	
1706937-03	MMSW-C_17MN006_061917_NSS_03_BL	0.0421	20	-	-	-	400x	
1706937-04	MMSW-C_17MN009_061917_NSS_04_BL	0.1211	20	-	-	-	400x → 1000x	
1706937-05	MMSW-C_17MN009_061917_NSS_05_BL	0.0952	20	-	-	-	400x 400x	

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

1706937-06	MMSW-C_17MN015_062017_NSS_06_BL	0.0947	20	-	-	-	400X	
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Technician: OLL Batch#: F707329 Date: 7/12/17

- EFAPS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAPS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAPS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAPS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____
 Balance#: 19 Calibrated? Yes No Therm.#: 13698 Vial Type: Glass Teflon
 Calibrated? Yes No

*Time in: 1930 Actual Temp. (raw): 77.0 °C w/ CF: 77.0 °C

Time out: 2130 Actual Temp. (raw): 79.0 °C w/ CF: 78.7 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1704212) Spike vol.: 100 µL (LIMS ID: 1700685)
 Spike Witness: DM 7/12/17 (Initial and date)

HCl LIMS ID: N/A

Pipette SN#: 0107852 Calibration Date: 7/7/17

HNO₃ LIMS ID: N/A

Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1704177

Dispenser #: 02R27494 Calibrated? Yes No

Other Acid LIMS ID: N/A

Dispenser #: 15406623 Yes

Glass Vial # 00067065 Boiling Chip lot # 1702551 *Hotblock Position: A7B7
AMB 7-12-17

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input checked="" type="checkbox"/> N/A
1	F707329-BLK1	0.2797	23	1706936-04	0.0421	
2	F707329-BLK2	0.2678	24	1706936-05	0.0339	
3	F707329-BLK3	0.2558	25	1706936-06	0.0516	
4	F707329-BS1	0.2956	26	1706937-01	0.0891	Comments
5	F707329-BSD1	0.2953	27	1706937-03	0.0421	MS1/MSD1
6	F707329-Dup1	0.0473	28	1706937-04	0.1211	Source:
7	F707329-MS1	0.0454	29	1706937-05	0.0952	1706935-01
8	F707329-MSD1	0.0152	30	1706937-06	0.0950	MS2/MSD2
9	F707329-MS2	0.0484	31			SRC: 1706936-04
10	F707329-MSD2	0.0333	32			
11	1706935-01	0.0474	33			Dup1 SRC: 1706936-03
12	1706935-08	0.1063	34			
13	1706935-09	0.0591	35			BS/BSD: 20 µl of 100 mg/mL 1702555
14	1706935-10	0.0370	36			
15	1706935-11	0.0902	37			
16	1706935-12	0.0775	38			
17	1706935-13	0.0769	39			
18	1706935-14	0.0670	40			
19	1706935-15	0.0799	41			
20	1706936-01	0.0997	42			70:30 Reagent added by AMB 7/12/17
21	1706936-02	0.0503	43			5% BrCl added by AMB 7/13/17
22	1706936-03	0.0710	44			

PREPARATION BENCH SHEET

F707330

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707330-BLK1	Blank	0.25	20					20x
F707330-BLK2	Blank	0.25	20					20x
F707330-BLK3	Blank	0.25	20					20x
F707330-BS1	LCS	0.25	20	1702555	20			20x
F707330-BSD1	LCS Dup	0.25	20	1702555	20			20x
F707330-DUP1	Duplicate [1706938-02] RE1	0.0594	20					2500x
F707330-MS1	Matrix Spike [1706937-02]	0.0562	20	1700685	100			400x
F707330-MS2	Matrix Spike [1706938-05]	0.0216	20	1700685	100			400x
F707330-MSD1	Matrix Spike Dup [1706937-02]	0.0273	20	1700685	100			400x
F707330-MSD2	Matrix Spike Dup [1706938-05]	0.0126	20	1700685	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1704177	70/30 Digestion Acid	07-Jan-18 00:00
			1704212	5% BrCl	18-Dec-17 00:00

DUP 2 (AD) 1706938-02 RE1 2500x

MS 2	1706937-02	AS/ASD	100	1702556	400x	1703182
MSD 3	1706937-02	AS/ASD	100	1702556	400x	1703782
MS 34	1706938-05	AS/ASD	100	1702556	400x	1703376
MSD 34	1706938-05	AS/ASD	100	1702556	400x	1704095

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707330

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706937-02	MMSW-C_17MN008_061917_NSS_02_BL	0.0462	20	QC	-	-	MS/MSD 400x	
1706937-07	MMSW-C_17MN016_062017_NSS_07_BL	0.0842	20	-	-	-	400x	
1706937-08	MMSW-C_17MN015_062017_NSS_08_BL	0.0826	20	-	-	-	400x	
1706937-09	MMSW-C_17MN010_062017_NSS_09_BL	0.0377	20	-	-	-	400x	
1706937-10	MMSW-C_17MN021_062317_NSS_10_BL	0.037	20	-	-	-	400x	
1706937-11	MMSW-C_17MN027_062317_NSS_11_BL	0.0566	20	-	-	-	400x	
1706937-12	MMSW-C_17MN026_062317_NSS_12_BL	0.0494	20	-	-	-	400x	
1706937-13	MMSW-C_17MN027_062317_NSS_13_BL	0.0794	20	-	-	-	400x	
1706937-14	MMSW-C_17MN027_062517_NSS_14_BL	0.0719	20	-	-	-	400x	
1706937-15	MMSW-C_17MN027_062517_NSS_15_BL	0.0971	20	-	-	-	400x → 100x	
1706938-01	MMSW-C_17MN009_061917_RWB_01_BL	0.092	20	-	-	-	400x → 2500x	
1706938-02	MMSW-C_17MN022_062317_RWB_02_BL	0.099	20	-	-	-	400x → 2500x	
1706938-03	MMSW-C_17MN020_062317_RWB_03_BL	0.1048	20	-	-	-	400x → 2500x	
1706938-04	MMSW-C_17MN020_062317_RWB_04_BL	0.063	20	-	-	-	400x → 400x	
1706938-05	MMSW-C_17MN036_062517_RWB_05_BL	0.0252	20	QC	-	-	MS/MSD 400x	
1706938-06	MMSW-C_17MN036_062617_RWB_06_BL	0.1743	20	-	-	-	400x → 2500x	
1706939-01	ADD-01_17MN001_062117_NSS_01_BL	0.0416	20	-	-	-	400x	
1706939-02	ADD-01_17MN001_062117_NSS_02_RL	0.093	20	-	-	-	400x	
1706939-03	ADD-01_17MN001_062117_NSS_03_BL	0.1031	20	-	-	-	400x	

PREPARATION BENCH SHEET

F707330

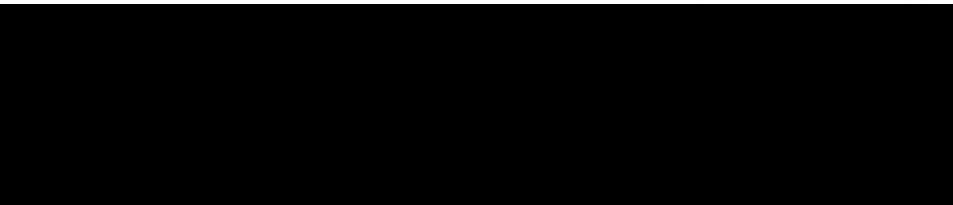
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

1706939-05	ADD-01_17MN006_062117_NSS_05_BL	0.1025	20	-	-	-	4007	
------------	---------------------------------	--------	----	---	---	---	------	--



Technician: CLL Batch#: F707350 Date: 7/12/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____
 Balance#: 19 Calibrated? Yes No Therm.#: 13698 Vial Type: Glass Teflon
 Calibrated? Yes No

*Time in: 1930 Actual Temp. (raw): 77.0 °C w/ CF: 77.0 °C

Time out: 2130 Actual Temp. (raw): 79.0 °C w/ CF: 78.7 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1704212) Spike vol.: 100 µL (LIMS ID: 1700685)
 Spike Witness: om 7/12/17 (initial and date)

HCl LIMS ID: N/A
 HNO₃ LIMS ID: N/A
 70/30 LIMS ID: 1704177
 Other Acid LIMS ID: N/A
 Glass Vial # 0006824

Pipette SN#: 0407852 Calibration Date: 7/7/17
 Pipette SN#: N/A Calibration Date: N/A
 Dispenser #: 02K27494 Calibrated? Yes No
 Dispenser #: 15406623 Yes AMB 7-12-17
 Boiling Chip lot # 1702551 *Hotblock Position: AT BOB7
AMB 7-12-17

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input checked="" type="checkbox"/> N/A
1	F707330-BLK1	0.2969	23	1706938-03	0.1048	
2	F707330-BLK2	0.2881	24	1706938-04	0.0630	
3	F707330-BLK3	0.2642	25	1706938-05	0.0252	
4	F707330-BS1	0.2523	26	1706938-06	0.1743	Comments
5	F707330-BSD1	0.2741	27	1706939-01	0.0416	MS1/MSD1
6	F707330-Dup1	0.0594	28	1706939-02	0.0930	SRL 1706937-02
7	F707330-MS1	0.0562	29	1706939-03	0.11031	MS2/MSD2
8	F707330-MSD1	0.0273	30	1706939-05	0.1025	SRL: 1706938-05
9	F707330-MS2	0.0216	31			1706938-05
10	F707330-MSD2	0.0126	32			Dup1 SRL
11	1706937-02	0.0462	33			1706938-02
12	1706937-07	0.0842	34			
13	1706937-08	0.0826	35			BS/BSD
14	1706937-09	0.0377	36			20ul of 100µg/ml
15	1706937-10	0.0370	37			1702555
16	1706937-11	0.0566	38			70:30 reagent
17	1706937-12	0.0494	39			added by
18	1706937-13	0.0794	40			AMB 7/12/17
19	1706937-14	0.0719	41			5% BrCl added
20	1706937-15	0.0971	42			by AMB 7/13/17
21	1706938-01	0.0920	43			
22	1706938-02	0.10990	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7G18008
Reviewer:	DM	Dataset ID(s):	THg26002-170717-1
Date:	7/18/2017	WO (s) #:	Various
Batch #(s):	F707329, F707330		

• Select the correct preparation method.

Analyte	Prep Method	Matrix	
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2885	FSTM Trap 70.30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sec/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO ₃ /HCl Digest	Sec/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Over Bomb	Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70.30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg ⁰	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: BC **Reviewer Initials:** DM

- | | | | |
|--|---|--|--|
| <p>1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?)</p> <p>2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data</p> <p style="margin-left: 20px;">(a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?
Naming convention: THg26001-yyymmdd-1 or THg26002-yyymmdd-1</p> <p style="margin-left: 20px;">(b) Check 5% of transcription from Instrument print-out and Excel file
Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel</p> <p style="margin-left: 20px;">(c) Check standards & reagents in sequence & bench sheet for correct usage (expiry).</p> <p style="margin-left: 20px;">(d) Check and compare masses (review prep benchsheet)</p> <p style="margin-left: 20px;">(e) Check & compare initial & final volumes</p> <p style="margin-left: 20px;">(f) Do aliquots and dilutions written on benchsheet match those in Excel?
50 ml / aliquot = Excel dilution value</p> <p style="margin-left: 20px;">(g) Is the sequence #, analyst, date, and instrument # on the QC page?</p> <p style="margin-left: 20px;">(h) Is the analysis status correct? (analyzed/initial review/reviewed)</p> <p style="margin-left: 20px;">(i) Original prep bench sheet added to data package?</p> <p style="margin-left: 20px;">(j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract)</p> <p>3. High QA? WO#(s)/Client(s): _____</p> <p>4. Client specific QC? (if Yes, refer to Project Notes/LIMS)</p> <p style="margin-left: 20px;">(a) Have the QC requirements been met for all WO#s?</p> <p style="margin-left: 20px;">(b) Prep blanks corrections/assigned properly</p> <p>5a. 20 or fewer samples in batch?</p> <p style="margin-left: 20px;">(i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples?</p> <p style="margin-left: 20px;">(ii) 1 CCV and 1 CCB every 10 analytical runs?</p> | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> NO <input type="checkbox"/> NO <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input checked="" type="checkbox"/> YES |
|--|---|--|--|

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7G18008
Reviewer: 0	Dataset ID(s): THg26002-170717-1
Date: 7/18/2017	WO (s) #: Various
Batch #(s): F707329, F707330	0

Analyst Initials BC Reviewer Initials DM

- | | | | | |
|---|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%)
Comments: _____ | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 7. The calibration curve included a minimum of 5 Standards
Comments: _____ | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%)
Comments: _____ | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 10. Do all calibration points pass acceptance criteria?
Comments: _____ | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 11. Are qualifiers consistent with the data review flowcharts?
Comments: _____ | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 12. Explain any items on the failed data report from Element
Comments: <u>Samples off curve, Failing DUPs, Failing MS/MSD RPD and Failing CCV</u> | | | | <input type="checkbox"/> |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list)
(a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:
(b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?
(c) Was a BrCl Blank analyzed for each preservation level?
(d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier)
(a) Filtration Blank prep date same as associated samples' prep date
(b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?
Comments: _____ | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?
Comments: _____ | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7G18008
Reviewer: 0	Dataset ID(s): THg26002-170717-1
Date: 7/18/2017	WO (s) #: Various
Batch #(s): F707329, F707330	0

Analyst Initials BC **Reviewer Initials** DM

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprumigen_admin\Quality Assurance\Training Master\DOCs

- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/27/2017 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 5/9/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 5/9/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1706937

July 20, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1706937

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July 20, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MMSW-C_17MN006_061917_NSS_01_BL	1706937-01	Tissue	19-Jun-17 08:00	30-Jun-17 09:50
MMSW-C_17MN008_061917_NSS_02_BL	1706937-02	Tissue	19-Jun-17 09:40	30-Jun-17 09:50
MMSW-C_17MN006_061917_NSS_03_BL	1706937-03	Tissue	19-Jun-17 10:20	30-Jun-17 09:50
MMSW-C_17MN009_061917_NSS_04_BL	1706937-04	Tissue	19-Jun-17 10:50	30-Jun-17 09:50
MMSW-C_17MN009_061917_NSS_05_BL	1706937-05	Tissue	19-Jun-17 10:50	30-Jun-17 09:50
MMSW-C_17MN015_062017_NSS_06_BL	1706937-06	Tissue	20-Jun-17 10:40	30-Jun-17 09:50
MMSW-C_17MN016_062017_NSS_07_BL	1706937-07	Tissue	20-Jun-17 11:10	30-Jun-17 09:50
MMSW-C_17MN015_062017_NSS_08_BL	1706937-08	Tissue	20-Jun-17 11:40	30-Jun-17 09:50
MMSW-C_17MN010_062017_NSS_09_BL	1706937-09	Tissue	20-Jun-17 16:00	30-Jun-17 09:50
MMSW-C_17MN021_062317_NSS_10_BL	1706937-10	Tissue	23-Jun-17 07:05	30-Jun-17 09:50
MMSW-C_17MN027_062317_NSS_11_BL	1706937-11	Tissue	23-Jun-17 08:40	30-Jun-17 09:50
MMSW-C_17MN026_062317_NSS_12_BL	1706937-12	Tissue	23-Jun-17 09:20	30-Jun-17 09:50
MMSW-C_17MN027_062317_NSS_13_BL	1706937-13	Tissue	23-Jun-17 10:50	30-Jun-17 09:50
MMSW-C_17MN027_062517_NSS_14_BL	1706937-14	Tissue	25-Jun-17 06:40	30-Jun-17 09:50
MMSW-C_17MN027_062517_NSS_15_BL	1706937-15	Tissue	25-Jun-17 06:40	30-Jun-17 09:50

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King**Reported:**
20-Jul-17 14:20

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 6/30/2017 9:50:00 AM . The samples were received intact, on-ice within a sealed cooler at -33.8 degrees Celsius.

The sample ID for 1706937-09 was corrected by the client as the chain of custody was incorrect.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per work instructions EFSR-P-SP-WI11642 (eff date 11/23/16) prior to digestion.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches; F707329 and F707330. They were analyzed in sequence 7G18008. Per client request, sample 1706937-02 was used as the source QC for the Matrix Spike (MS) and Matrix Spike Duplicate (MSD) in batch F707330.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

definitions section of the report.

Sample Receipt Checklist

EFGS Work Order: 1706937

Client: AMEL Ester Wheeler

Date & Time Received: 6/30/17 9:52

Date Labeled: 7/3/17 Labeled By: CB

Project: _____

Received By: LM

Label Verified By: LM

of Coolers Received: 1

Samples Arrived By: Shipping Service

Courier _____

Hand _____

Other (Specify): _____

Coolant: None/Ambient

Loose Ice

Gel Ice

Dry Ice

Coolant Required: Y/N

Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:		
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>Y</u>	

TID:	CF:	W/CF:	°C	Date/Time:	By:
<u>43/8U</u>	<u>2</u>	<u>34</u>	<u>°C</u>	<u>6/30/17 9:50</u>	<u>LM</u>
Cooler 1:	<u>34</u>	<u>°C</u>	<u>W/CF: 32.8</u>	<u>°C</u>	<u>W/CF: °C</u>
Cooler 2:	<u>°C</u>	<u>W/CF: °C</u>	<u>°C</u>	<u>°C</u>	<u>W/CF: °C</u>
Cooler 3:	<u>°C</u>	<u>W/CF: °C</u>	<u>°C</u>	<u>°C</u>	<u>W/CF: °C</u>
Cooler 4:	<u>°C</u>	<u>W/CF: °C</u>	<u>°C</u>	<u>°C</u>	<u>W/CF: °C</u>
Cooler 5:	<u>°C</u>	<u>W/CF: °C</u>	<u>°C</u>	<u>°C</u>	<u>W/CF: °C</u>
Cooler 6:	<u>°C</u>	<u>W/CF: °C</u>	<u>°C</u>	<u>°C</u>	<u>W/CF: °C</u>

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>N</u>	
Preservation type:	<u>NA</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>N</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>NA</u>	

Anomalies/Non-conformances (attach additional pages if needed):

Sample 9 labeled 062017 vs col 062317

1706937



Environmental Analysis Request/Chain of Custody

Client: **Ariac Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101**

Project Name#: **USJC Penobscot** PN # **361819E05E_04A_054**

Project Manager: **Rod Pendleton**

Sampler: **EMU V**

Picture #:

State where samples were collected: **ME**

For Compliance: Yes No

Analyses Requested: **For Lab Use Only**

Preservation Codes

SF #:
SC #:

Preservation codes:
H-HCl
N-HNO₃
S-H₂SO₄
D-Other
T-Thiosulfate
B-BiOCH
P-H₂P₂O₇

Sample Identification	Date	Time	Collection	Grab	Composite	Matrix			Total # of Containers	Hg 1631a cap tubes (70µL) Frozen	Remarks
						Soil	Sediment	Water			
1 MMSW-C-17MN006_061917_NSS_01_BL	6/19/2017	0930		Grab				X	1	3	
2 MMSW-C-17MN008_061917_NSS_02_BL	6/19/2017	0940		Grab				X	1	3	MS/MD
3 MMSW-C-17MN006_061917_NSS_03_BL	6/19/2017	1020		Grab				X	1	2	
4 MMSW-C-17MN009_061917_NSS_04_BL	6/19/2017	1050		Grab				X	1	2	
5 MMSW-C-17MN009_061917_NSS_05_BL	6/19/2017	1050		Grab				X	1	2	
6 MMSW-C-17MN015_062017_NSS_06_BL	6/20/2017	1040		Grab				X	1	2	
7 MMSW-C-17MN016_062017_NSS_07_BL	6/20/2017	1110		Grab				X	1	2	
8 MMSW-C-17MN015_062017_NSS_08_BL	6/20/2017	1140		Grab				X	1	2	
9 MMSW-C-17MN010_062317_NSS_09_BL	6/20/2017	1800		Grab				X	1	2	
10 MMSW-C-17MN021_062317_NSS_10_BL	6/23/2017	0705		Grab				X	1	2	
11 MMSW-C-17MN027_062317_NSS_11_BL	6/23/2017	0840		Grab				X	1	2	
12 MMSW-C-17MN026_062317_NSS_12_BL	6/23/2017	0920		Grab				X	1	2	
13 MMSW-C-17MN027_062317_NSS_13_BL	6/23/2017	1050		Grab				X	1	2	
14 MMSW-C-17MN027_062517_NSS_14_BL	6/25/2017	0940		Grab				X	1	2	
15 MMSW-C-17MN027_062517_NSS_15_BL	6/25/2017	0940		Grab				X	1	2	
16 MMSW-C-17MN008_061917_NSS_02_BL_MS	6/19/2017	0940		Grab				X	1	3	Use extra volume from sample 02
17 MMSW-C-17MN008_061917_NSS_02_BL_MD	6/19/2017	0940		Grab				X	1	3	Use extra volume from sample 02

Turnaround Time Requested (TAT) (please check): **Standard** **Rush**

Notes: (Rush TAT is subject to laboratory approval and surcharges)

FedEx # **8104 2664 2029**
 Sample disposal - Hold Equipment Blanks 1-4 (in 30 days after delivery of report report and EDD) to derive *info@amradw.com / 978-992-9653

Data Package Options: (please check if required)
 High Standard
 EDD Required? Yes No If Yes format: _____

Relinquished by: _____ Date: **6/29/17** Time: **1600** Received by: **Lat Miller** Date: **6/29/17** Time: **9:50**

Relinquished by: _____ Date: _____ Time: _____ Received by: **Lat Miller** Date: _____ Time: _____

Relinquished by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____

Relinquished by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Temperature upon receipt:
_____	6/29/17	1600	Lat Miller	6/29/17	9:50	33.8 °C

See in fact



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	Reported: 20-Jul-17 14:20
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MMSW-C_17MN006_061917_NSS_01_BL
1706937-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	3460	12.6	112	ng/g	1000	F707329	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	
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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

MMSW-C_17MN008_061917_NSS_02_BL
1706937-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2990	9.70	86.6	ng/g	400	F707330	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	



AMEC Foster Wheeler
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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

MMSW-C_17MN006_061917_NSS_03_BL
1706937-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	4200	10.6	95.0	ng/g	400	F707329	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	



AMEC Foster Wheeler
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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

MMSW-C_17MN009_061917_NSS_04_BL
1706937-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	4190	9.25	82.6	ng/g	1000	F707329	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	Reported: 20-Jul-17 14:20
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MMSW-C_17MN009_061917_NSS_05_BL
1706937-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	1410	4.71	42.0	ng/g	400	F707329	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

MMSW-C_17MN015_062017_NSS_06_BL
1706937-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2150	4.73	42.2	ng/g	400	F707329	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

MMSW-C_17MN016_062017_NSS_07_BL
1706937-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2190	5.32	47.5	ng/g	400	F707330	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

MMSW-C_17MN015_062017_NSS_08_BL
1706937-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2300	5.42	48.4	ng/g	400	F707330	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	



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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

MMSW-C_17MN010_062017_NSS_09_BL
1706937-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2400	11.9	106	ng/g	400	F707330	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	Reported: 20-Jul-17 14:20
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MMSW-C_17MN021_062317_NSS_10_BL
1706937-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	2140	12.1	108	ng/g	400	F707330	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	Reported: 20-Jul-17 14:20
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MMSW-C_17MN027_062317_NSS_11_BL
1706937-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	1890	7.92	70.7	ng/g	400	F707330	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

MMSW-C_17MN026_062317_NSS_12_BL
1706937-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	5010	9.07	81.0	ng/g	400	F707330	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
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MMSW-C_17MN027_062317_NSS_13_BL
1706937-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	3280	5.64	50.4	ng/g	400	F707330	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	



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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

MMSW-C_17MN027_062517_NSS_14_BL
1706937-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	4410	6.23	55.6	ng/g	400	F707330	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	



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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

**MMSW-C_17MN027_062517_NSS_15_BL
1706937-15**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	3740	11.5	103	ng/g	1000	F707330	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7G18008 - F707329											
Cal Standard (7G18008-CAL1)					Prepared & Analyzed: 17-Jul-17						
Mercury	0.535	-		ng/L	0.50100		107				
Cal Standard (7G18008-CAL2)					Prepared & Analyzed: 17-Jul-17						
Mercury	1.039	-		ng/L	1.0020		104				
Cal Standard (7G18008-CAL3)					Prepared & Analyzed: 17-Jul-17						
Mercury	4.926	-		ng/L	5.0100		98.3				
Cal Standard (7G18008-CAL4)					Prepared & Analyzed: 17-Jul-17						
Mercury	18.90	-		ng/L	20.040		94.3				
Cal Standard (7G18008-CAL5)					Prepared & Analyzed: 17-Jul-17						
Mercury	38.47	-		ng/L	40.080		96.0				
Calibration Blank (7G18008-CCB1)					Prepared & Analyzed: 17-Jul-17						
Mercury	0.186	-		ng/L							
Calibration Blank (7G18008-CCB2)					Prepared & Analyzed: 17-Jul-17						
Mercury	0.272	-		ng/L							
Calibration Blank (7G18008-CCB3)					Prepared & Analyzed: 17-Jul-17						
Mercury	0.297	-		ng/L							
Calibration Blank (7G18008-CCB4)					Prepared & Analyzed: 17-Jul-17						
Mercury	0.259	-		ng/L							
Calibration Blank (7G18008-CCB5)					Prepared & Analyzed: 17-Jul-17						
Mercury	0.246	-		ng/L							

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7G18008 - F707329

Calibration Blank (7G18008-CCB7)				Prepared & Analyzed: 17-Jul-17							
Mercury	0.225	-		ng/L							
Calibration Blank (7G18008-CCB8)				Prepared & Analyzed: 17-Jul-17							
Mercury	0.198	-		ng/L							
Calibration Blank (7G18008-CCB9)				Prepared & Analyzed: 17-Jul-17							
Mercury	0.321	-		ng/L							
Calibration Blank (7G18008-CCBA)				Prepared & Analyzed: 17-Jul-17							
Mercury	0.448	-		ng/L							
Calibration Check (7G18008-CCV1)				Prepared & Analyzed: 17-Jul-17							
Mercury	5.232	-		ng/L	5.0000		105	77-123			
Calibration Check (7G18008-CCV2)				Prepared & Analyzed: 17-Jul-17							
Mercury	5.496	-		ng/L	5.0000		110	77-123			
Calibration Check (7G18008-CCV3)				Prepared & Analyzed: 17-Jul-17							
Mercury	5.643	-		ng/L	5.0000		113	77-123			
Calibration Check (7G18008-CCV4)				Prepared & Analyzed: 17-Jul-17							
Mercury	5.390	-		ng/L	5.0000		108	77-123			
Calibration Check (7G18008-CCV5)				Prepared & Analyzed: 17-Jul-17							
Mercury	5.377	-		ng/L	5.0000		108	77-123			
Calibration Check (7G18008-CCV7)				Prepared & Analyzed: 17-Jul-17							
Mercury	5.202	-		ng/L	5.0000		104	77-123			

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	Reported: 20-Jul-17 14:20
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7G18008 - F707329											
Calibration Check (7G18008-CCV8)					Prepared & Analyzed: 17-Jul-17						
Mercury	5.136	-		ng/L	5.0000		103	77-123			
Calibration Check (7G18008-CCV9)					Prepared & Analyzed: 17-Jul-17						
Mercury	5.494	-		ng/L	5.0000		110	77-123			
Calibration Check (7G18008-CCVA)					Prepared & Analyzed: 17-Jul-17						
Mercury	5.685	-		ng/L	5.0000		114	77-123			
Instrument Blank (7G18008-IBL1)					Prepared & Analyzed: 17-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7G18008-IBL2)					Prepared & Analyzed: 17-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7G18008-IBL3)					Prepared & Analyzed: 17-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7G18008-ICV1)					Prepared & Analyzed: 17-Jul-17						
Mercury	5.266	-		ng/L	5.0000		105	79-121			
Batch F707329 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F707329-BLK1)					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	0.335	0.090	0.800	ng/g							J
Blank (F707329-BLK2)					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	0.182	0.090	0.800	ng/g							J

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F707329 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F707329-BLK3)					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	0.176	0.090	0.800	ng/g							J
LCS (F707329-BS1)					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	7.541	0.090	0.800	ng/g	8.0160		94.1	75-125			
LCS Dup (F707329-BSD1)					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	7.525	0.090	0.800	ng/g	8.0160		93.9	75-125	0.212	24	
Duplicate (F707329-DUP1)					Source: 1706936-03RE1 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	4115	9.47	84.6	ng/g		6169			39.9	24	QR-07
Duplicate (F707329-DUP2)					Source: 1706936-03RE1 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	4868	15.8	141	ng/g		6169			23.6	24	AD
Matrix Spike (F707329-MS1)					Source: 1706935-01 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	4508	9.87	88.1	ng/g	2207.0	2346	97.9	71-125			
Matrix Spike (F707329-MS2)					Source: 1706936-04RE1 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	4259	9.26	82.6	ng/g	2070.2	2683	76.2	71-125			
Matrix Spike Dup (F707329-MSD1)					Source: 1706935-01 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	10270	29.5	263	ng/g	6592.1	2346	120	71-125	20.4	24	
Matrix Spike Dup (F707329-MSD2)					Source: 1706936-04RE1 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	6096	13.5	120	ng/g	3009.0	2683	113	71-125	39.3	24	QR-08

Batch F707330 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F707330-BLK1)					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	0.692	0.090	0.800	ng/g							J

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F707330 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F707330-BLK2)					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	0.335	0.090	0.800	ng/g							J
Blank (F707330-BLK3)					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	0.258	0.090	0.800	ng/g							J
LCS (F707330-BS1)					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	7.147	0.090	0.800	ng/g	8.0160		89.2	75-125			
LCS Dup (F707330-BSD1)					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	7.298	0.090	0.800	ng/g	8.0160		91.0	75-125	2.08	24	
Duplicate (F707330-DUP1)					Source: 1706938-02RE1 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	778.0	7.54	67.3	ng/g		6016			154	24	QR-07
Duplicate (F707330-DUP2)					Source: 1706938-02RE1 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	5567	28.3	253	ng/g		6016			7.75	24	AD
Matrix Spike (F707330-MS1)					Source: 1706937-02 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	4766	7.97	71.2	ng/g	1782.9	2991	99.6	71-125			
Matrix Spike (F707330-MS2)					Source: 1706938-05 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	9532	20.7	185	ng/g	4638.9	5021	97.2	71-125			
Matrix Spike (F707330-MS3)					Source: 1706937-02 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	6523	9.70	86.6	ng/g	3470.1	2991	102	71-125			AS
Matrix Spike (F707330-MS4)					Source: 1706938-05 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	11300	17.8	159	ng/g	6361.9	5021	98.6	71-125			AS

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:20

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F707330 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F707330-MSD1)											
		Source: 1706937-02			Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	7498	16.4	147	ng/g	3670.3	2991	123	71-125	20.9	24	
Matrix Spike Dup (F707330-MSD2)											
		Source: 1706938-05			Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	13400	35.6	317	ng/g	7952.4	5021	105	71-125	7.96	24	
Matrix Spike Dup (F707330-MSD3)											
		Source: 1706937-02			Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	6437	9.70	86.6	ng/g	3470.1	2991	99.3	71-125	2.46	24	AS
Matrix Spike Dup (F707330-MSD4)											
		Source: 1706938-05			Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	11520	17.8	159	ng/g	6361.9	5021	102	71-125	3.48	24	AS

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AMEC Foster Wheeler
 271 Mill Road
 Chelmsford MA, 01824

Project: 2017 Penobscot Biota
 Project Number: 2017 Penobscot Biota
 Project Manager: Denise King

Reported:
 20-Jul-17 14:20

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-08 The RPD value for the MS/MSD was outside of acceptance limits. Batch QC acceptable based on matrix duplicate and/or LCS/LCSD RPD values within control limits.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- J The result is an estimated concentration.
- E-01 Sample was preceded by a sample exceeding the calibration curve and was reanalyzed for confirmation.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- AS This MS and/or MSD is an analytical spike and/or an analytical spike duplicate.
- AD This matrix duplicate is an analytical duplicate.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Analysis Datasheet for Total Mercury

Date of Analysis: July 17, 2017

Analyst: BC

Instrument #: Hg2600 2

Units: ng/L

LIMS Sequence #: 7G18008

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	164.07 units	328.14	145.90 units	291.79	106.9 %Rec
SEQ-CAL2	1	1.00 ng/L	301.59 units	301.59	283.42 units	283.42	103.9 %Rec
SEQ-CAL3	1	5.00 ng/L	1362.29 units	272.46	1344.12 units	268.82	98.5 %Rec
SEQ-CAL4	1	20.00 ng/L	5176.52 units	258.83	5158.35 units	257.92	94.5 %Rec
SEQ-CAL5	1	40.00 ng/L	10514.64 units	262.87	10495.47 units	262.41	96.2 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						
Corr. Mean RF		Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF			
272.87	+/- 14.31	5.2% RSD	284.78				

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IOL	3	18.17 units	±7.43	0.06 ng/L	+0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	2.889 ng/L	±1.131
BLK	2	3	5.352 ng/L	±2.892
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER-REVIEWED
 INITIALS: DM 7/18/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-IBL1	1	7/17/2017 8:00:57	81244-1.RAW	8:30:57 AM	20.93			2.8	0.010	0.010	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	7/17/2017 8:05:05	81245-1.RAW	8:05:05 AM	16.33			-1.8	-0.007	-0.007	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	7/17/2017 8:09:14	81246-1.RAW	8:09:14 AM	17.26			-0.9	-0.003	-0.003	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	7/17/2017 8:13:22	81247-1.RAW	8:13:22 AM	164.07			145.9	0.535	0.535	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	7/17/2017 8:17:30	81248-1.RAW	8:17:30 AM	301.95			283.4	1.039	1.039	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	7/17/2017 8:21:39	81249-1.RAW	8:21:39 AM	1362.29			1344.1	4.925	4.925	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	7/17/2017 8:25:47	81250-1.RAW	8:25:47 AM	5176.52			5158.3	18.904	18.904	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	7/17/2017 8:29:56	81251-1.RAW	8:29:56 AM	10514.64			10496.5	38.467	38.467	ng/L	
Hg2600-2	BC	CAL	SEQ-CV1	1	7/17/2017 8:34:04	81252-1.RAW	8:34:04 AM	1455.14			1437.0	5.265	5.265	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 8:46:45	81253-1.RAW	8:46:45 AM	172.09		x	153.9	0.564	0.000	ng/L	
Hg2600-2	BC	SAM	EFGS07217 TV 2700ng	2500	7/17/2017 8:50:54	81254-1.RAW	8:50:54 AM	2780.69		x	2762.5	10.124	25309.595	ng/L	
Hg2600-2	BC	SAM	EFGS05672 TV 2700ng	2500	7/17/2017 8:55:02	81255-1.RAW	8:55:02 AM	2793.69		x	2775.5	10.171	25428.698	ng/L	
Hg2600-2	BC	BLK	F707329-BLK1	20	7/17/2017 8:59:11	81256-1.RAW	8:59:11 AM	75.39	1		57.2	0.210	4.194	ng/L	
Hg2600-2	BC	BLK	F707329-BLK2	20	7/17/2017 9:03:10	81257-1.RAW	9:03:10 AM	49.24	1		31.1	0.114	2.277	ng/L	
Hg2600-2	BC	BLK	F707329-BLK3	20	7/17/2017 9:07:27	81258-1.RAW	9:07:27 AM	48.12	1		29.9	0.110	2.195	ng/L	
Hg2600-2	BC	SAM	F707329-BS1	20	7/17/2017 9:11:38	81259-1.RAW	9:11:36 AM	1343.03	1		1325.4	4.713	94.258	ng/L	
Hg2600-2	BC	SAM	F707329-BSU1	20	7/17/2017 9:15:44	81260-1.RAW	9:15:44 AM	1340.88	1		1322.7	4.703	94.058	ng/L	
Hg2600-2	BC	SAM	1706935-01	400	7/17/2017 9:19:53	81261-1.RAW	9:19:53 AM	3813.29	1		3795.1	13.901	5560.306	ng/L	
Hg2600-2	BC	SAM	1706935-08	400	7/17/2017 9:24:01	81262-1.RAW	9:24:01 AM	5728.83	1		5710.7	20.921	8368.285	ng/L	
Hg2600-2	BC	SAM	1706935-09	400	7/17/2017 9:28:09	81263-1.RAW	9:28:09 AM	3694.59	1		3676.4	13.466	5386.320	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	7/17/2017 9:32:18	81264-1.RAW	9:32:18 AM	1445.78			1427.5	5.232	5.232	ng/L	
Hg2600-2	BC	CAL	SEQ-CGB1	1	7/17/2017 9:36:26	81265-1.RAW	9:36:26 AM	68.85			50.7	0.186	0.186	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 9:50:40	81266-1.RAW	9:50:40 AM	188.03		x	147.9	0.542	0.000	ng/L	
Hg2600-2	BC	SAM	1706935-10	400	7/17/2017 9:54:49	81267-1.RAW	9:54:49 AM	1642.20	1		1624.0	5.914	2377.750	ng/L	
Hg2600-2	BC	SAM	1706935-11	400	7/17/2017 9:58:57	81268-1.RAW	9:58:57 AM	5994.44	1		5976.5	21.894	8757.639	ng/L	
Hg2600-2	BC	SAM	1706935-12	400	7/17/2017 10:03:05	81269-1.RAW	10:03:05 AM	4808.27	1		4790.1	17.517	7018.948	ng/L	
Hg2600-2	BC	SAM	1706935-13	400	7/17/2017 10:07:14	81270-1.RAW	10:07:14 AM	7051.18	1		7013.0	25.693	10277.308	ng/L	
Hg2600-2	BC	SAM	1706935-14	400	7/17/2017 10:11:22	81271-1.RAW	10:11:22 AM	6924.92	1		6906.7	25.304	10121.517	ng/L	
Hg2600-2	BC	SAM	1706935-15	400	7/17/2017 10:15:31	81272-1.RAW	10:15:31 AM	6369.91	1		6378.7	23.369	9347.614	ng/L	
Hg2600-2	BC	SAM	1706936-01	400	7/17/2017 10:19:39	81273-1.RAW	10:19:39 AM	3728.74	1		3710.6	13.591	5436.380	ng/L	
Hg2600-2	BC	SAM	1706936-02	400	7/17/2017 10:23:48	81274-1.RAW	10:23:48 AM	10755.70	1		10737.5	39.343	15737.104	ng/L	
Hg2600-2	BC	SAM	1706936-03	400	7/17/2017 10:27:56	81275-1.RAW	10:27:56 AM	11913.88	1		11895.7	43.587	17434.879	ng/L	
Hg2600-2	BC	SAM	1706936-04	400	7/17/2017 10:32:04	81276-1.RAW	10:32:04 AM	9830.49	1		9812.3	33.564	5585.534	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	7/17/2017 10:36:13	81277-1.RAW	10:36:13 AM	1517.95			1499.7	5.495	5.495	ng/L	
Hg2600-2	BC	CAL	SEQ-CGB2	1	7/17/2017 10:40:21	81278-1.RAW	10:40:21 AM	92.44			74.3	0.272	0.272	ng/L	
Hg2600-2	BC	SAM	1706936-05	400	7/17/2017 10:44:31	81279-1.RAW	10:44:31 AM	1347.41	1		1329.2	4.864	1945.621	ng/L	
Hg2600-2	BC	SAM	1706936-06	400	7/17/2017 10:48:50	81280-1.RAW	10:48:50 AM	11446.59	1		11428.4	41.875	16749.870	ng/L	
Hg2600-2	BC	SAM	1706937-01	400	7/17/2017 10:53:00	81281-1.RAW	10:53:00 AM	10378.06	1		10357.9	37.951	15180.595	ng/L	
Hg2600-2	BC	SAM	1706937-03	400	7/17/2017 10:57:18	81282-1.RAW	10:57:18 AM	6046.25	1		6028.1	22.084	8833.585	ng/L	
Hg2600-2	BC	SAM	1706937-04	400	7/17/2017 11:01:25	81283-1.RAW	11:01:25 AM	17572.75	1		17554.1	64.323	25729.391	ng/L	
Hg2600-2	BC	SAM	1706937-05	400	7/17/2017 11:05:33	81284-1.RAW	11:05:33 AM	4750.23	1		4732.1	17.334	6933.768	ng/L	
Hg2600-2	BC	SAM	1706937-08	400	7/17/2017 11:09:41	81285-1.RAW	11:09:41 AM	6980.43	1		6962.3	23.507	10202.988	ng/L	
Hg2600-2	BC	SAM	1706938-03RE1	1000	7/17/2017 11:13:50	81286-1.RAW	11:13:50 AM	5934.48	1		5976.3	21.899	21898.576	ng/L	
Hg2600-2	BC	SAM	1706938-04RE1	400	7/17/2017 11:17:56	81287-1.RAW	11:17:58 AM	3872.28	1		3854.1	14.117	5646.793	ng/L	
Hg2600-2	BC	SAM	F707329-DUP1	400	7/17/2017 11:22:07	81288-1.RAW	11:22:07 AM	6658.60	1		6640.5	24.329	9731.515	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	7/17/2017 11:26:15	81289-1.RAW	11:26:15 AM	1558.12			1539.9	5.641	5.641	ng/L	
Hg2600-2	BC	CAL	SEQ-CGB3	1	7/17/2017 11:30:24	81290-1.RAW	11:30:24 AM	99.33			81.7	0.297	0.297	ng/L	
Hg2600-2	BC	SAM	F707329-MS1	400	7/17/2017 11:34:32	81291-1.RAW	11:34:32 AM	7000.49	1		6982.3	25.581	10232.394	ng/L	
Hg2600-2	BC	SAM	F707329-MSD1	400	7/17/2017 11:38:41	81292-1.RAW	11:38:41 AM	5345.47	1		5327.3	19.516	7806.322	ng/L	
Hg2600-2	BC	SAM	F707329-MS2	400	7/17/2017 11:42:49	81293-1.RAW	11:42:49 AM	7051.89	1		7033.7	25.769	10307.740	ng/L	
Hg2600-2	BC	SAM	F707329-MSD2	400	7/17/2017 11:46:57	81294-1.RAW	11:46:57 AM	6943.65	1		6925.5	25.373	10149.072	ng/L	
Hg2600-2	BC	SAM	1706938-06RE1	1000	7/17/2017 11:50:58	81295-1.RAW	11:50:58 AM	5092.64	1		5074.4	18.593	18593.222	ng/L	
Hg2600-2	BC	SAM	1706937-01RE1	1000	7/17/2017 12:04:06	81296-1.RAW	12:04:06 PM	4225.02	1		4206.8	15.414	15414.008	ng/L	
Hg2600-2	BC	SAM	1706937-04RE1	1000	7/17/2017 12:08:15	81297-1.RAW	12:08:15 PM	8941.13	1		8923.0	25.368	25367.779	ng/L	
Hg2600-2	BC	SAM	1706937-05RE1	400	7/17/2017 12:12:23	81298-1.RAW	12:12:23 PM	4592.48	1		4574.3	16.756	6707.525	ng/L	
Hg2600-2	BC	SAM	F707329-DUP2	4000	7/17/2017 12:16:32	81299-1.RAW	12:16:32 PM	4734.51	1		4716.3	17.281	17281.144	ng/L	
Hg2600-2	BC	BLK	F707329-BLK1	20	7/17/2017 12:20:40	81300-1.RAW	12:20:40 PM	136.11	2		117.9	0.432	8.644	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-CCV4	1	7/17/2017 12:24:48	81301-1.RAW	12:24:49 PM	1488.93			1470.8	5.390	5.390	ng/L	
Hg2600-2	BC	CAL	SFQ-CGR4	1	7/17/2017 12:28:57	81302-1.RAW	12:28:57 PM	88.88			70.7	0.259	0.259	ng/L	
Hg2600-2	BC	BLK	F707330-BLK2	20	7/17/2017 12:33:05	81303-1.RAW	12:33:05 PM	75.33	2		57.2	0.209	4.189	ng/L	
Hg2600-2	BC	BLK	F707330-BLK3	20	7/17/2017 12:37:14	81304-1.RAW	12:37:14 PM	62.14	2		44.0	0.161	3.223	ng/L	
Hg2600-2	BC	SAM	F707330-BS1	20	7/17/2017 12:41:22	81305-1.RAW	12:41:22 PM	1810.18	2		1292.0	4.467	89.341	ng/L	
Hg2600-2	BC	SAM	F707330-BSD1	20	7/17/2017 12:45:31	81306-1.RAW	12:45:31 PM	1535.78	2		1317.6	4.561	91.221	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 12:56:10	81307-1.RAW	12:56:10 PM	158.74	x		138.6	0.508	0.000	ng/L	
Hg2600-2	BC	SAM	1706937-02	400	7/17/2017 13:00:18	81308-1.RAW	1:00:18 PM	4734.72	2		4716.5	17.271	6908.569	ng/L	
Hg2600-2	DC	SAM	1706937-07	400	7/17/2017 13:04:26	81309-1.RAW	1:04:28 PM	6324.36	2		6306.2	23.007	9238.800	ng/L	
Hg2600-2	BC	SAM	1706937-08	400	7/17/2017 13:08:36	81310-1.RAW	1:08:35 PM	6515.76	2		6497.6	23.798	9519.371	ng/L	
Hg2600-2	BC	SAM	1706937-09	400	7/17/2017 13:12:43	81311-1.RAW	1:12:43 PM	3108.27	2		3088.1	11.304	4521.447	ng/L	
Hg2600-2	BC	SAM	1706937-10	400	7/17/2017 13:16:52	81312-1.RAW	1:16:52 PM	2719.49	2		2701.3	9.886	3954.471	ng/L	
Hg2600-2	BC	SAM	1706937-11	400	7/17/2017 13:21:00	81313-1.RAW	1:21:00 PM	3678.83	2		3660.7	13.402	5360.754	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	7/17/2017 13:25:08	81314-1.RAW	1:25:08 PM	1485.47			1467.3	5.377	5.377	ng/L	
Hg2600-2	BC	CAL	SEQ-CC85	1	7/17/2017 13:29:17	81315-1.RAW	1:29:17 PM	85.21			67.0	0.246	0.246	ng/L	
Hg2600-2	BC	SAM	1706937-12	400	7/17/2017 13:33:26	81316-1.RAW	1:33:25 PM	8466.75	2		8448.6	30.948	12379.301	ng/L	
Hg2600-2	BC	SAM	1706937-13	400	7/17/2017 13:37:34	81317-1.RAW	1:37:34 PM	8904.13	2		8886.0	32.551	13020.450	ng/L	
Hg2600-2	BC	SAM	1706937-14	400	7/17/2017 13:41:42	81318-1.RAW	1:41:42 PM	10834.90	2		10816.7	39.627	15850.739	ng/L	
Hg2600-2	BC	SAM	1706937-15	400	7/17/2017 13:45:50	81319-1.RAW	1:45:50 PM	11918.84	2		11900.7	43.599	17439.672	ng/L	
Hg2600-2	BC	SAM	1706938-01	400	7/17/2017 13:49:59	81320-1.RAW	1:49:59 PM	17121.50	2		17103.3	62.665	25066.180	ng/L	
Hg2600-2	BC	SAM	1706938-02	400	7/17/2017 13:54:07	81321-1.RAW	1:54:07 PM	18847.03	2		18828.9	68.989	27595.610	ng/L	
Hg2600-2	DC	SAM	1706938-03	400	7/17/2017 13:58:16	81322-1.RAW	1:58:16 PM	29097.87	2		29079.7	106.555	42622.176	ng/L	
Hg2600-2	BC	SAM	1706938-04	400	7/17/2017 14:02:24	81323-1.RAW	2:02:24 PM	2468.59	2		2450.4	8.957	3586.680	ng/L	
Hg2600-2	BC	SAM	1706938-05	400	7/17/2017 14:06:33	81324-1.RAW	2:06:33 PM	4337.37	2		4319.2	15.815	6326.039	ng/L	
Hg2600-2	BC	SAM	1706938-06	400	7/17/2017 14:10:42	81325-1.RAW	2:10:42 PM	40088.58	2		40070.4	146.833	58733.307	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	7/17/2017 14:14:50	81326-1.RAW	2:14:50 PM	1826.87			1808.7	6.628	6.628	ng/L	
Hg2600-2	BC	CAL	SEQ-CC86	1	7/17/2017 14:18:59	81327-1.RAW	2:18:59 PM	197.42			179.2	0.657	0.657	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 14:23:42	81328-1.RAW	2:23:42 PM	160.30	x		142.1	0.521	0.000	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 14:27:50	81329-1.RAW	2:27:50 PM	106.70	x		90.5	0.332	0.000	ng/L	
Hg2600-2	BC	SAM	clean		7/17/2017 14:30:41	81330-1.RAW	2:30:41 PM	35.50	x		17.3	0.063	0.000	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 14:34:50	81331-1.RAW	2:34:50 PM	104.16	x		86.0	0.315	0.000	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	7/17/2017 14:38:59	81332-1.RAW	2:38:59 PM	1437.53			1419.4	5.202	5.202	ng/L	
Hg2600-2	BC	CAL	SEQ-CC87	1	7/17/2017 14:43:08	81333-1.RAW	2:43:08 PM	79.53			61.4	0.225	0.225	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8	1	7/17/2017 14:47:16	81334-1.RAW	2:47:16 PM	1419.58			1401.4	5.136	5.136	ng/L	
Hg2600-2	BC	CAL	SEQ-CC88	1	7/17/2017 14:51:25	81335-1.RAW	2:51:25 PM	72.31			54.1	0.198	0.198	ng/L	
Hg2600-2	BC	SAM	1706939-01	400	7/17/2017 14:55:33	81336-1.RAW	2:55:33 PM	742.84	2		724.7	2.642	1056.927	ng/L	
Hg2600-2	BC	SAM	1706939-02	400	7/17/2017 14:59:42	81337-1.RAW	2:59:42 PM	1669.77	2		1651.6	6.639	2415.701	ng/L	
Hg2600-2	BC	SAM	1706939-03	400	7/17/2017 15:03:50	81338-1.RAW	3:03:50 PM	1224.06	2		1205.9	4.406	1762.341	ng/L	
Hg2600-2	BC	SAM	1706939-05	400	7/17/2017 15:07:58	81339-1.RAW	3:07:58 PM	1646.57	2		1628.4	5.954	2381.692	ng/L	
Hg2600-2	BC	SAM	1706937-15RF1	1000	7/17/2017 15:11:49	81340-1.RAW	3:11:49 PM	4970.03	2		4951.9	18.142	18141.795	ng/L	
Hg2600-2	BC	SAM	1706938-01RE1	2500	7/17/2017 15:15:57	81341-1.RAW	3:15:57 PM	2899.89	2		2861.7	10.559	26396.328	ng/L	
Hg2600-2	BC	SAM	1706938-02RE1	2500	7/17/2017 15:20:05	81342-1.RAW	3:20:05 PM	3268.93	2		3250.8	11.911	29777.395	ng/L	
Hg2600-2	BC	SAM	1706938-03RE1	2500	7/17/2017 15:24:14	81343-1.RAW	3:24:14 PM	4860.19	2		4842.0	17.742	44356.184	ng/L	
Hg2600-2	BC	SAM	1706938-04RE1	400	7/17/2017 15:28:23	81344-1.RAW	3:28:23 PM	2227.78	2		2209.6	8.084	3233.680	ng/L	
Hg2600-2	BC	SAM	1706938-06RE1	2500	7/17/2017 15:32:31	81345-1.RAW	3:32:31 PM	6409.47	2		6391.2	23.420	58549.902	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV9	1	7/17/2017 15:36:40	81346-1.RAW	3:36:40 PM	1517.20			1499.0	5.494	5.494	ng/L	
Hg2600-2	BC	CAL	SEQ-CC89	1	7/17/2017 15:40:48	81347-1.RAW	3:40:48 PM	105.90			87.7	0.321	0.321	ng/L	
Hg2600-2	BC	SAM	F707330-DUP1	400	7/17/2017 15:44:56	81348-1.RAW	3:44:56 PM	1598.17	2		1580.0	5.777	2310.743	ng/L	
Hg2600-2	BC	SAM	F707330-MS1	400	7/17/2017 15:49:05	81349-1.RAW	3:49:05 PM	9158.45	2		9140.3	33.483	13393.254	ng/L	
Hg2600-2	BC	SAM	F707330-MSD1	400	7/17/2017 16:00:13	81350-1.RAW	4:00:13 PM	7003.70	2		6985.5	25.587	10234.636	ng/L	
Hg2600-2	BC	SAM	F707330-MS2	400	7/17/2017 16:04:22	81351-1.RAW	4:04:22 PM	7044.42	2		7026.2	25.736	10294.327	ng/L	
Hg2600-2	BC	SAM	F707330-MSD2	400	7/17/2017 16:08:30	81352-1.RAW	4:08:30 PM	5778.84	2		5760.7	21.098	8439.130	ng/L	
Hg2600-2	BC	SAM	F707330-DUP2	2500	7/17/2017 16:12:38	81353-1.RAW	4:12:38 PM	3026.39	2		3008.2	11.022	27555.295	ng/L	
Hg2600-2	BC	SAM	WS		7/17/2017 16:16:46	81354-1.RAW	4:16:46 PM	244.31	x		226.1	0.829	0.000	ng/L	
Hg2600-2	BC	SAM	F707330-MS3	400	7/17/2017 16:20:55	81355-1.RAW	4:20:55 PM	10301.03	2		10282.9	37.670	15068.146	ng/L	
Hg2600-2	BC	SAM	F707330-MSD3	400	7/17/2017 16:25:04	81356-1.RAW	4:25:04 PM	10165.55	2		10147.4	37.174	14869.548	ng/L	
Hg2600-2	BC	SAM	F707330-MS4	400	7/17/2017 16:29:13	81357-1.RAW	4:29:13 PM	9731.32	2		9713.1	35.583	14233.016	ng/L	
Hg2600-2	BC	SAM	F707330-MSD4	400	7/17/2017 16:33:21	81358-1.RAW	4:33:21 PM	9922.38	2		9904.2	36.283	14513.089	ng/L	
Hg2600-2	BC	CAL	SFQ-CCVA	1	7/17/2017 16:37:30	81359-1.RAW	4:37:30 PM	1569.57			1551.4	5.685	5.685	ng/L	
Hg2600-2	BC	CAL	SEQ-CCBA	1	7/17/2017 16:41:38	81360-1.RAW	4:41:38 PM	140.38			122.2	0.448	0.448	ng/L	

TotalMercury EPA1631
 Operati BC
 BlankSi 18.173
 Calib Eqn: Conc = (Area-18.17
 Run Date: 7/17/2017
 Blank SD: 2.434709458
 Worksh THg2600
 CalibFa 272.87
 Status: QC Warnings:14/QC
 Run Time: 16:15:39
 Blank RSD%: 13.39747457
 Method #####
 R: 1
 R²: 0.9999
 CF SD: 14.30995186
 CF RSD%: 5.24414249

Sample/ID	Location Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean			0.00	12.30					81239-1.RAW	7:41:32	3355.40	Clean	OK	1
clean			0.00	0.00					81240-1.RAW	7:44:23	0.79	Clean	OK	1
ws			18.17	0.04					81241-1.RAW	7:48:31	28.44	Sample	OK	1
ws			18.17	0.01					81242-1.RAW	7:52:40	19.65	Sample	OK	1
ws			18.17	0.01					81243-1.RAW	7:56:48	19.57	Sample	OK	1
SEQ-IBL1	A1	1	0.00	0.08					81244-1.RAW	8:00:57	20.93	Sample	OK	1
SEQ-IBI 2	A2	1	0.00	0.08					81245-1.RAW	8:05:05	16.33	Sample	OK	1
SEQ-IBL3	A3	1	0.00	0.06					81246-1.RAW	8:09:14	17.26	Sample	OK	1
SEQ-CAL1	A4	1	18.17	0.53		106.94			81247-1.RAW	8:13:22	164.07	Sample	OK	1
SEQ-CAL2	A5	1	18.17	1.04		103.86			81248-1.RAW	8:17:30	301.59	Sample	OK	1
SEQ-CAL3	A6	1	18.17	4.93		98.51			81249-1.RAW	8:21:39	1362.29	Sample	OK	1
SEQ-CAL4	A7	1	18.17	18.90		94.52			81250-1.RAW	8:25:47	5176.52	Sample	OK	1
SEQ-CAL5	A8	1	18.17	38.47		96.17			81251-1.RAW	8:29:56	10514.64	Sample	FB	1
SEQ-ICV1	A9	1	18.17	5.27		105.32			81252-1.RAW	8:34:04	1455.14	Sample	OK	1
ws			18.17	0.56					81253-1.RAW	8:46:45	172.09	Sample	OK	1
EFGS07217 TV : A10		2500	18.17	25309.41					81254-1.RAW	8:50:54	2780.69	Sample	OK	1
EFGS08672 TV : A11		2500	18.17	25428.46					81255-1.RAW	8:55:02	2793.69	Sample	OK	1
F707329-BL K1	A12	20	18.17	4.19					81256-1.RAW	8:59:11	75.39	Sample	OK	1
F707329-BLK2	A13	20	18.17	2.28					81257-1.RAW	9:03:19	49.24	Sample	OK	1
F707329-BLK3	A14	20	18.17	2.19					81258-1.RAW	9:07:27	48.12	Sample	OK	1
F707329-BS1	A15	20	18.17	97.15					81259-1.RAW	9:11:36	1343.60	Sample	OK	1
F707329-BSD1	A16	20	18.17	96.95					81260-1.RAW	9:15:44	1340.88	Sample	OK	1
1706935-01	A17	400	18.17	5563.14					81261-1.RAW	9:19:53	3813.28	Sample	OK	1
1706935-08	A18	400	18.17	8371.10					81262-1.RAW	9:24:01	5726.83	Sample	OK	1
1706935-09	A19	400	18.17	5389.17					81263-1.RAW	9:28:09	3694.59	Sample	OK	1
SEQ-CCV1	A20	1	18.17	5.23		104.63			81264-1.RAW	9:32:18	1445.78	Sample	OK	1
SEQ-CCB1	A21	1	18.17	0.19		0.00			81265-1.RAW	9:36:26	68.85	Sample	OK	1
WS			18.17	0.54					81266-1.RAW	9:50:40	166.03	Sample	OK	1
1706935-10	B1	400	18.17	2380.62					81267-1.RAW	9:54:49	1642.20	Sample	OK	1
1706935-11	B2	400	18.17	8760.45					81268-1.RAW	9:58:57	5994.44	Sample	OK	1
1706935-12	B3	400	18.17	7021.67					81269-1.RAW	10:03:05	4808.27	Sample	OK	1
1706935-13	B4	400	18.17	10280.11					81270-1.RAW	10:07:14	7031.13	Sample	FB	1
1706935-14	B5	400	18.17	10124.41					81271-1.RAW	10:11:22	6924.92	Sample	OK	1
1706935-15	B6	400	18.17	9350.41					81272-1.RAW	10:15:31	6396.91	Sample	OK	1
1706936-01	B7	400	18.17	5439.22					81273-1.RAW	10:19:39	3728.74	Sample	OK	1
1706936-02	B8	400	18.17	15739.85					81274-1.RAW	10:23:48	10755.70	Sample	OK	1
1706936-03	B9	400	18.17	17437.61					81275-1.RAW	10:27:56	11913.89	Sample	OK	1
1706936-04	B10	400	18.17	5588.37					81276-1.RAW	10:32:04	3830.49	Sample	OK	1
SEQ-CCV2	B11	1	18.17	5.50		109.92			81277-1.RAW	10:36:13	1517.85	Sample	OK	1
SEQ-CCB2	B12	1	18.17	0.27		0.00			81278-1.RAW	10:40:21	92.44	Sample	OK	1
1706936-05	B13	400	18.17	1948.49					81279-1.RAW	10:44:51	1347.41	Sample	OK	1
1706936-06	B14	400	18.17	16752.60					81280-1.RAW	10:48:59	11446.59	Sample	OK	1
1706937-01	B15	400	18.17	15183.34					81281-1.RAW	10:53:08	10376.06	Sample	OK	1
1706937-03	B16	400	18.17	8836.40					81282-1.RAW	10:57:16	6046.25	Sample	OK	1

1706937-04	B17	400	18.17	25732.04		81283-1.RAW	11:01:25	17572.25	Sample	OK	1
1706937-05	B18	400	18.17	6936.60		81284-1.RAW	11:05:33	4750.23	Sample	OK	1
1706937-06	B19	400	18.17	10205.78		81285-1.RAW	11:09:41	6980.43	Sample	OK	1
1706936-03RE1	B20	1000	18.17	21901.28		81286-1.RAW	11:13:50	5994.48	Sample	FB	1
1706936-04RE1	B21	400	18.17	5649.62		81287-1.RAW	11:17:58	3872.28	Sample	OK	1
F707329-DUP1	C1	400	18.17	9734.32		81288-1.RAW	11:22:07	6658.80	Sample	OK	1
SEQ-CCV3	C2	1	18.17	5.64	112.87	81289-1.RAW	11:26:15	1558.12	Sample	OK	1
SEQ-CCB3	C3	1	18.17	0.30	0.00	81290-1.RAW	11:30:24	99.33	Sample	OK	1
F707329-MS1	C4	400	18.17	10235.19	788897.71	81291-1.RAW	11:34:32	7000.49	Sample	OK	1
F707329-MSD1	C5	400	18.17	7809.13		81292-1.RAW	11:38:41	5345.47	Sample	OK	1
F707329-MS2	C6	400	18.17	10310.53	132.00	81293-1.RAW	11:42:49	7051.89	Sample	OK	1
F707329-MSD2	C7	400	18.17	10151.87		81294-1.RAW	11:46:57	6943.65	Sample	OK	1
1706936-06RE1	C8	1000	18.17	18595.94		81295-1.RAW	11:59:58	5092.54	Sample	OK	1
1706937-01RE1	C9	1000	18.17	15416.77		81296-1.RAW	12:04:06	4225.02	Sample	OK	1
1706937-04RE1	C10	1000	18.17	25370.44		81297-1.RAW	12:08:15	6941.13	Sample	OK	1
1706937-05RE1	C11	400	18.17	6705.36		81298-1.RAW	12:12:23	4592.48	Sample	OK	1
F707329-DUP2	C12	1000	18.17	17283.87		81299-1.RAW	12:16:32	4734.51	Sample	OK	1
F707330-BLK1	C13	20	18.17	8.64		81300-1.RAW	12:20:40	136.11	Sample	OK	1
SEQ-CCV4	C14	1	18.17	5.39	107.80	81301-1.RAW	12:24:49	1488.93	Sample	OK	1
SEQ-CCB4	C15	1	18.17	0.26	0.00	81302-1.RAW	12:28:57	88.88	Sample	OK	1
F707330-BLK2	C16	20	18.17	4.19		81303-1.RAW	12:33:05	75.33	Sample	OK	1
F707330-BLK3	C17	20	18.17	3.22		81304-1.RAW	12:37:14	62.14	Sample	OK	1
F707330-BS1	C18	20	18.17	94.69		81305-1.RAW	12:41:22	1310.13	Sample	OK	1
F707330-BSD1	C19	20	18.17	96.57		81306-1.RAW	12:45:31	1335.78	Sample	OK	1
ws			18.17	0.51		81307-1.RAW	12:56:10	156.74	Sample	OK	1
1706937-02	C20	400	18.17	6913.86		81308-1.RAW	13:00:18	4734.72	Sample	OK	1
1706937-07	C21	400	18.17	9244.07		81309-1.RAW	13:04:26	6324.36	Sample	OK	1
1706937-08	A1	400	18.17	9524.63		81310-1.RAW	13:08:35	6515.76	Sample	OK	1
1706937-09	A2	400	18.17	4526.75		81311-1.RAW	13:12:43	3106.27	Sample	OK	1
1706937-10	A3	400	18.17	3959.79		81312-1.RAW	13:16:52	2719.49	Sample	OK	1
1706937-11	A4	400	18.17	5366.06		81313-1.RAW	13:21:00	3878.83	Sample	OK	1
SEQ-CCV5	A5	1	18.17	5.38	107.54	81314-1.RAW	13:25:08	1485.47	Sample	OK	1
SEQ-CCB5	A6	1	18.17	0.25	0.00	81315-1.RAW	13:29:17	85.21	Sample	OK	1
1706937-12	A7	400	18.17	12384.54		81316-1.RAW	13:33:25	8466.75	Sample	OK	1
1706937-13	A8	400	18.17	13025.68		81317-1.RAW	13:37:34	8904.13	Sample	OK	1
1706937-14	A9	400	18.17	15855.95		81318-1.RAW	13:41:42	10834.90	Sample	FB	1
1706937-15	A10	400	18.17	17444.86		81319-1.RAW	13:45:50	11918.84	Sample	FB	1
1706938-01	A11	400	18.17	25071.31		81320-1.RAW	13:49:59	17121.50	Sample	FB	1
1706938-02	A12	400	18.17	27600.71		81321-1.RAW	13:54:07	18847.03	Sample	OK	1
1706938-03	A13	400	18.17	42627.14		81322-1.RAW	13:58:16	29097.87	Sample	FB	1
1706938-04	A14	400	18.17	3591.99		81323-1.RAW	14:02:24	2468.59	Sample	OK	1
1706938-05	A15	400	18.17	6331.40		81324-1.RAW	14:06:33	4337.37	Sample	OK	1
1706938-06	A16	400	18.17	58738.12		81325-1.RAW	14:10:42	40088.58	Sample	FB	1
SEQ-CCV6	A17	1	18.17	6.63	132.57	81326-1.RAW	14:14:50	1826.87	Sample	OK	1
SEQ-CCB6	A18	1	18.17	0.66	0.00	81327-1.RAW	14:18:59	197.42	Sample	OK	1
ws			18.17	0.52		81328-1.RAW	14:23:42	160.30	Sample	OK	1
ws			18.17	0.33		81329-1.RAW	14:27:50	108.70	Sample	OK	1
clean			0.00	0.13		81330-1.RAW	14:30:41	35.50	Clean	OK	1
ws			18.17	0.32		81331-1.RAW	14:34:50	104.16	Sample	OK	1

SEQ-CCV7	C1	1	18.17	5.20	104.03	81332-1.RAW	14:38:59	1437.53	Sample	OK	1
SEQ-CCB7	C2	1	18.17	0.22	0.00	81333-1.RAW	14:43:08	79.53	Sample	OK	1
SEQ-CCV8	C3	1	18.17	5.14	102.71	81334-1.RAW	14:47:16	1419.58	Sample	OK	1
SEQ-CCB8	C4	1	18.17	0.20	0.00	81335-1.RAW	14:51:25	72.31	Sample	OK	1
1706939-01	A19	400	18.17	1082.26		81336-1.RAW	14:55:33	742.84	Sample	OK	1
1706939-02	A20	400	18.17	2421.02		81337-1.RAW	14:59:42	1669.77	Sample	OK	1
1706939-03	A21	400	18.17	1767.68		81338-1.RAW	15:03:50	1224.06	Sample	OK	1
1706939-05	B1	400	18.17	2387.03		81339-1.RAW	15:07:58	1646.57	Sample	OK	1
1706937-15RE1	B2	1000	18.17	18146.99		81340-1.RAW	15:18:49	4970.03	Sample	OK	1
1706938-01RE1	B3	2500	18.17	26401.49		81341-1.RAW	15:22:57	2899.89	Sample	OK	1
1706938-02RE1	B4	2500	18.17	29782.44		81342-1.RAW	15:27:06	3268.93	Sample	OK	1
1706938-03RE1	B5	2500	18.17	44361.15		81343-1.RAW	15:31:14	4860.19	Sample	OK	1
1706938-04RE1	B6	400	18.17	3239.00		81344-1.RAW	15:35:23	2227.78	Sample	OK	1
1706938-06RE1	B7	2500	18.17	58554.77		81345-1.RAW	15:39:31	6409.42	Sample	OK	1
SEQ-CCV9	B8	1	18.17	5.49	109.87	81346-1.RAW	15:43:40	1517.20	Sample	OK	1
SEQ-CCB9	B9	1	18.17	0.32	0.00	81347-1.RAW	15:47:48	105.90	Sample	OK	1
F707330-DUP1	B10	400	18.17	2316.07		81348-1.RAW	15:51:56	1598.17	Sample	OK	1
F707330-MS1	B11	400	18.17	13398.49	578.25	81349-1.RAW	15:56:05	9158.45	Sample	OK	1
F707330-MSD1	B12	400	18.17	10239.89		81350-1.RAW	16:00:13	7003.70	Sample	OK	1
F707330-MS2	B13	400	18.17	10299.59	100.56	81351-1.RAW	16:04:22	7044.42	Sample	OK	1
F707330-MSD2	B14	400	18.17	8444.41		81352-1.RAW	16:08:30	5778.84	Sample	OK	1
F707330-DUP2	B15	2500	18.17	27560.42		81353-1.RAW	16:12:38	3026.39	Sample	OK	1
WS			18.17	0.83		81354-1.RAW	16:19:48	244.31	Sample	OK	1
F707330-MS3	B16	400	18.17	15073.37	393691.03	81355-1.RAW	16:23:56	10301.03	Sample	FB	1
F707330-MSD3	B17	400	18.17	14874.76		81356-1.RAW	16:28:04	10165.55	Sample	OK	1
F707330-MS4	B18	400	18.17	14238.24	95.70	81357-1.RAW	16:32:13	9731.32	Sample	OK	1
F707330-MSD4	B19	400	18.17	14518.31		81358-1.RAW	16:36:21	9922.38	Sample	OK	1
SEQ-CCVA	B20	1	18.17	5.69		81359-1.RAW	16:40:30	1569.57	Sample	OK	1
SEQ-CCBA	B21	1	18.17	0.45		81360-1.RAW	16:44:38	140.38	Sample	OK	1

ANALYSIS SEQUENCE

7G18008



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G18008-IBL1	QC	1			
7G18008-IBL2	QC	2			
7G18008-IBL3	QC	3			
7G18008-CAL1	QC	4	1702602		
7G18008-CAL2	QC	5	1702603		
7G18008-CAL3	QC	6	1702604		
7G18008-CAL4	QC	7	1702605		
7G18008-CAL5	QC	8	1702606		
7G18008-ICV1	QC	9	1703679		
F707329-BLK1	QC	10			
F707329-BLK2	QC	11			
F707329-BLK3	QC	12			
F707329-BS1	QC	13			
F707329-BSD1	QC	14			
1706935-01	Hg-CVAFS-T-7030	15			
1706935-08	Hg-CVAFS-T-7030	16			
1706935-09	Hg-CVAFS-T-7030	17			
7G18008-CCV1	QC	18	1703679		
7G18008-CCB1	QC	19			
1706935-10	Hg-CVAFS-T-7030	20			
1706935-11	Hg-CVAFS-T-7030	21			
1706935-12	Hg-CVAFS-T-7030	22			
1706935-13	Hg-CVAFS-T-7030	23			
1706935-14	Hg-CVAFS-T-7030	24			
1706935-15	Hg-CVAFS-T-7030	25			
1706936-01	Hg-CVAFS-T-7030	26			
1706936-02	Hg-CVAFS-T-7030	27			
1706936-03	Hg-CVAFS-T-7030	28			
1706936-04	Hg-CVAFS-T-7030	29			
7G18008-CCV2	QC	30	1703679		
7G18008-CCB2	QC	31			
1706936-05	Hg-CVAFS-T-7030	32			
1706936-06	Hg-CVAFS-T-7030	33			
1706937-01	Hg-CVAFS-T-7030	34			
1706937-03	Hg-CVAFS-T-7030	35			

Duc Date: 7/31/2017

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ANALYSIS SEQUENCE

7G18008



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706937-04	Hg-CVAFS-T-7030	36			
1706937-05	Hg-CVAFS-T-7030	37			
1706937-06	Hg-CVAFS-T-7030	38			
1706936-03RE1	Hg-CVAFS-T-7030	39			Added 7/17/2017 by BC
1706936-04RE1	Hg-CVAFS-T-7030	40			Added 7/17/2017 by BC
F707329-DUP1	QC	41			
7G18008-CCV3	QC	42	1703679		
7G18008-CCB3	QC	43			
F707329-MS1	QC	44			
F707329-MSD1	QC	45			
F707329-MS2	QC	46			
F707329-MSD2	QC	47			
1706936-06RE1	Hg-CVAFS-T-7030	48			Added 7/17/2017 by BC
1706937-01RE1	Hg-CVAFS-T-7030	49			Added 7/17/2017 by BC
1706937-04RE1	Hg-CVAFS-T-7030	50			Added 7/17/2017 by BC
1706937-05RE1	Hg-CVAFS-T-7030	51			Added 7/17/2017 by BC
F707329-DUP2	QC	52			
F707330-BLK1	QC	53			
7G18008-CCV4	QC	54	1703679		
7G18008-CCB4	QC	55			
F707330-BLK2	QC	56			
F707330-BLK3	QC	57			
F707330-BS1	QC	58			
F707330-BSD1	QC	59			
1706937-02	Hg-CVAFS-T-7030	60			
1706937-07	Hg-CVAFS-T-7030	61			
1706937-08	Hg-CVAFS-T-7030	62			
1706937-09	Hg-CVAFS-T-7030	63			
1706937-10	Hg-CVAFS-T-7030	64			
1706937-11	Hg-CVAFS-T-7030	65			
7G18008-CCV5	QC	66	1703679		
7G18008-CCB5	QC	67			
1706937-12	Hg-CVAFS-T-7030	68			
1706937-13	Hg-CVAFS-T-7030	69			
1706937-14	Hg-CVAFS-T-7030	70			

Due Date: 7/31/2017

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ANALYSIS SEQUENCE

7G18008



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706937-15	Hg-CVAFS-T-7030	71			
1706938-01	Hg-CVAFS-T-7030	72			
1706938-02	Hg-CVAFS-T-7030	73			
1706938-03	Hg-CVAFS-T-7030	74			
1706938-04	Hg-CVAFS-T-7030	75			
1706938-05	Hg-CVAFS-T-7030	76			
1706938-06	Hg-CVAFS-T-7030	77			
7G18008-CCV6	QC	78	1703679		
7G18008-CCB6	QC	79			
7G18008-CCV7	QC	80	1703679		
7G18008-CCB7	QC	81			
7G18008-CCV8	QC	82	1703679		
7G18008-CCB8	QC	83			
1706939-01	Hg-CVAFS-T-7030	84			
1706939-02	Hg-CVAFS-T-7030	85			
1706939-03	Hg-CVAFS-T-7030	86			
1706939-05	Hg-CVAFS-T-7030	87			
1706937-15RE1	Hg-CVAFS-T-7030	88			Added 7/17/2017 by BC
1706938-01RE1	Hg-CVAFS-T-7030	89			Added 7/17/2017 by BC
1706938-02RE1	Hg-CVAFS-T-7030	90			Added 7/17/2017 by BC
1706938-03RE1	Hg-CVAFS-T-7030	91			Added 7/17/2017 by BC
1706938-04RE1	Hg-CVAFS-T-7030	92			Added 7/17/2017 by BC
1706938-06RE1	Hg-CVAFS-T-7030	93			Added 7/17/2017 by BC
7G18008-CCV9	QC	94	1703679		
7G18008-CCB9	QC	95			
F707330-DUP1	QC	96			
F707330-MS1	QC	97			
F707330-MSD1	QC	98			
F707330-MS2	QC	99			
F707330-MSD2	QC	100			
F707330-DUP2	QC	101			
F707330-MS3	QC	102			
F707330-MSD3	QC	103			
F707330-MS4	QC	104			
F707330-MSD4	QC	105			

Due Date: 7/31/2017

ANALYSIS SEQUENCE

7G18008



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G18008-CCVA	QC	106	1703679		
7G18008-CCBA	QC	107			

Becing 7/18/17
Samples Loaded By Date

Becing 7/18/17
Data Processed By Date

Failing Data Report - 7G18008

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1706936-03	Hg-CVAFS-T-7030	4910	56.3				ng/g						FAIL-OVER	PASS	E
1706936-06	Hg-CVAFS-T-7030	6490	77.5				ng/g						FAIL-OVER	PASS	E
1706937-04	Hg-CVAFS-T-7030	4250	33.0				ng/g						FAIL-OVER	PASS	E
1706937-15	Hg-CVAFS-T-7030	3590	41.2				ng/g						FAIL-OVER	PASS	E
1706938-01	Hg-CVAFS-T-7030	5450	43.5				ng/g						FAIL-OVER	PASS	E
1706938-02	Hg-CVAFS-T-7030	5570	40.4				ng/g						FAIL-OVER	PASS	E
1706938-03	Hg-CVAFS-T-7030	8130	38.2				ng/g						FAIL-OVER	PASS	E
1706938-06	Hg-CVAFS-T-7030	6740	22.9				ng/g						FAIL-OVER	PASS	E
F707329-DUP1	Hg-CVAFS-T-7030	4115	84.6	6169	6169		ug/g				39.9	24.00	PASS-OVER	FAIL-DUP	QR-07
F707329-MSD2	Hg-CVAFS-T-7030	6096	120	4259	2683	3009.0	ng/g	113	71.00	125.00	39.3	24.00	PASS-OVER	FAIL-MSD (RPD)	QR-08
7G18008-CCV6	Hg-CVAFS-T-7030	6.628	1.000			5.0000	ng/L	133	77.00	123.00			PASS-OVER	FAIL-CCV	FE-447/95.5
F707330-DUP1	Hg-CVAFS-T-7030	778.0	67.3	6016	6016		ng/g				154	24.00	PASS-OVER	FAIL-DUP	QR-07

Analyst Reviewed By *[Signature]* Date 7/18/17

Peer Reviewed By *[Signature]* Date 7/18/17

PREPARATION BENCH SHEET

F707330

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707330-BLK1	Blank	0.25	20					
F707330-BLK2	Blank	0.25	20					
F707330-BLK3	Blank	0.25	20					
F707330-BS1	LCS	0.25	20	1702555	20			
F707330-BSD1	LCS Dup	0.25	20	1702555	20			
F707330-DUP1	Duplicate [1706938-02RE1]	0.0594	20					
F707330-DUP2	AD [1706938-02RE1]	0.099	20					
F707330-MS1	Matrix Spike [1706937-02]	0.0562	20	1700685	100			
F707330-MS2	Matrix Spike [1706938-05]	0.0216	20	1700685	100			
F707330-MS3	AS [1706937-02]	0.00028875	0.125	1702556	100			[Spk] 0.0462g->20mL; 40mL->40mL; Spiked 0.125mL
F707330-MS4	AS [1706938-05]	0.0001575	0.125	1702556	100			[Spk] 0.0252g->20mL; 40mL->40mL; Spiked 0.125mL
F707330-MSD1	Matrix Spike Dup [1706937-02]	0.0273	20	1700685	100			
F707330-MSD2	Matrix Spike Dup [1706938-05]	0.0126	20	1700685	100			
F707330-MSD3	ASD [1706937-02]	0.00028875	0.125	1702556	100			[Spk] 0.0462g->20mL; 40mL->40mL; Spiked 0.125mL
F707330-MSD4	ASD [1706938-05]	0.0001575	0.125	1702556	100			[Spk] 0.0252g->20mL; 40mL->40mL; Spiked 0.125mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1702556	THg 10ng/mL Calibration Standard	26-Jul-17 00:00	1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703702	THg Dilute 1% BrCl	21-Dec-17 00:00
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00
			1704212	5% BrCl	18-Dec-17 00:00

PREPARATION BENCH SHEET

F707330

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs	Raw Data	Sample Comments	Analysis Comments
1706937-02	MMSW-C_17MN008_061917_NSS_02_BL	0.0462	20	QC	-	-	MS/MSD	
1706937-07	MMSW-C_17MN016_062017_NSS_07_BL	0.0842	20	-	-	-		
1706937-08	MMSW-C_17MN015_062017_NSS_08_BL	0.0826	20	-	-	-		
1706937-09	MMSW-C_17MN010_062017_NSS_09_BL	0.0377	20	-	-	-		
1706937-10	MMSW-C_17MN021_062317_NSS_10_BL	0.037	20	-	-	-		
1706937-11	MMSW-C_17MN027_062317_NSS_11_BL	0.0566	20	-	-	-		
1706937-12	MMSW-C_17MN026_062317_NSS_12_BL	0.0494	20	-	-	-		
1706937-13	MMSW-C_17MN027_062317_NSS_13_BL	0.0794	20	-	-	-		
1706937-14	MMSW-C_17MN027_062517_NSS_14_BL	0.0719	20	-	-	-		
1706937-15	MMSW-C_17MN027_062517_NSS_15_BL	0.0971	20	-	-	-		
1706937-15RE1	MMSW-C_17MN027_062517_NSS_15_BL	0.0971	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706938-01	MMSW-C_17MN009_061917_RWB_01_BL	0.092	20	-	-	-		
1706938-01RE1	MMSW-C_17MN009_061917_RWB_01_BL	0.092	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706938-02	MMSW-C_17MN022_062317_RWB_02_BL	0.099	20	-	-	-		
1706938-02RE1	MMSW-C_17MN022_062317_RWB_02_BL	0.099	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706938-03	MMSW-C_17MN020_062317_RWB_03_BL	0.1048	20	-	-	-		
1706938-03RE1	MMSW-C_17MN020_062317_RWB_03_BL	0.1048	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706938-04	MMSW-C_17MN020_062317_RWB_04_BL	0.063	20	-	-	-		
1706938-04RE1	MMSW-C_17MN020_062317_RWB_04_BL	0.063	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707330

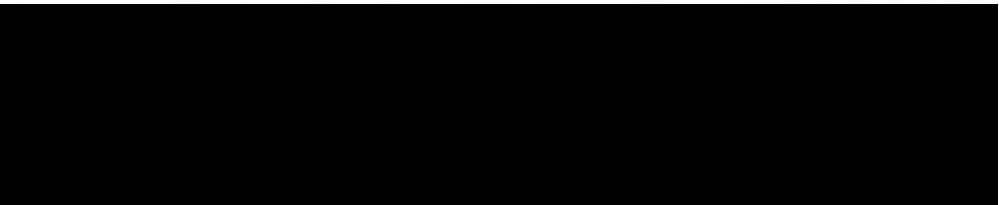
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

1706938-05	MMSW-C_17MN036_062517_RWB_05_BL	0.0252	20	QC	-	-	MS/MSD	
1706938-06	MMSW-C_17MN036_062617_RWB_06_BL	0.1743	20	-	-	-		
1706938-06RE1	MMSW-C_17MN036_062617_RWB_06_BL	0.1743	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706939-01	ADD-01_17MN001_062117_NSS_01_BL	0.0416	20	-	-	-		
1706939-02	ADD-01_17MN001_062117_NSS_02_BL	0.093	20	-	-	-		
1706939-03	ADD-01_17MN001_062117_NSS_03_BL	0.1031	20	-	-	-		
1706939-05	ADD-01_17MN006_062117_NSS_05_BL	0.1025	20	-	-	-		



PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707329-BLK1	Blank	0.25	20					
F707329-BLK2	Blank	0.25	20					
F707329-BLK3	Blank	0.25	20					
F707329-BS1	LCS	0.25	20	1702555	20			
F707329-BSD1	LCS Dup	0.25	20	1702555	20			
F707329-DUP1	Duplicate [1706936-03RE1]	0.0473	20					
F707329-DUP2	AD [1706936-03RE1]	0.071	20					
F707329-MS1	Matrix Spike [1706935-01]	0.0454	20	1700685	100			
F707329-MS2	Matrix Spike [1706936-04RE1]	0.0484	20	1700685	100			
F707329-MSD1	Matrix Spike Dup [1706935-01]	0.0152	20	1700685	100			
F707329-MSD2	Matrix Spike Dup [1706936-04RE1]	0.0333	20	1700685	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1.000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
			1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703702	THg Dilute 1% BrCl	21-Dec-17 00:00
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00
			1704212	5% BrCl	18-Dec-17 00:00

PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706935-01	MMSE-1_17MN003_062117_NSS_01_BL	0.0474	20	QC	-	-	MS/MSD	
1706935-08	MMSE-1_17MN002_062117_NSS_08_BL	0.1063	20	-	-	-		
1706935-09	MMSE-1_17MN002_062117_NSS_09_BL	0.0591	20	-	-	-		
1706935-10	MMSE-1_17MN010_062117_NSS_10_BL	0.037	20	-	-	-		
1706935-11	MMSE-1_17MN011_062217_NSS_11_BL	0.0902	20	-	-	-		
1706935-12	MMSE-1_17MN011_062217_NSS_12_BL	0.0775	20	-	-	-		
1706935-13	MMSE-1_17MN018_062217_NSS_13_BL	0.0769	20	-	-	-		
1706935-14	MMSE-1_17MN011_062217_NSS_14_BL	0.067	20	-	-	-		
1706935-15	MMSE-1_17MN018_062217_NSS_15_BL	0.0799	20	-	-	-		
1706936-01	MMSE-1_17MN004_062117_RWB_01_BL	0.0997	20	-	-	-		
1706936-02	MMSE-1_17MN044_062717_RWB_02_BL	0.0503	20	-	-	-		
1706936-03	MMSE-1_17MN047_062717_RWB_03_BL	0.071	20	-	-	-		
1706936-03RE1	MMSE-1_17MN047_062717_RWB_03_BL	0.071	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706936-04	MMSE-1_17MN047_062717_RWB_04_BL	0.0421	20	QC	-	-	MS/MSD	
1706936-04RE1	MMSE-1_17MN047_062717_RWB_04_BL	0.0421	20	QC	-	-	MS/MSD Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706936-05	MMSE-1_17MN047_062717_RWB_05_BL	0.0339	20	-	-	-		
1706936-06	MMSE-1_17MN064_062817_RWB_06_BL	0.0516	20	-	-	-		
1706936-06RE1	MMSE-1_17MN064_062817_RWB_06_BL	0.0516	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706937-01	MMSW-C_17MN006_061917_NSS_01_BL	0.0891	20	-	-	-		

PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

1706937-01RE1	MMSW-C_17MN006_061917_NSS_01_BL	0.0891	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706937-03	MMSW-C_17MN006_061917_NSS_03_BL	0.0421	20	-	-	-		
1706937-04	MMSW-C_17MN009_061917_NSS_04_BL	0.1211	20	-	-	-		
1706937-04RE1	MMSW-C_17MN009_061917_NSS_04_BL	0.1211	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706937-05	MMSW-C_17MN009_061917_NSS_05_BL	0.0952	20	-	-	-		
1706937-05RE1	MMSW-C_17MN009_061917_NSS_05_BL	0.0952	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706937-06	MMSW-C_17MN015_062017_NSS_06_BL	0.0947	20	-	-	-		

PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707329-BLK1	Blank	0.25	20					20x
F707329-BLK2	Blank	0.25	20					20x
F707329-BLK3	Blank	0.25	20					20x
F707329-BS1	LCS	0.25	20	1702555	20			20x
F707329-BSD1	LCS Dup	0.25	20	1702555	20			20x
F707329-DUP1	Duplicate [1706936-03]	0.0473	20					400x
F707329-MS1	Matrix Spike [1706935-01]	0.0454 0.454	20	1700685	100			400x
F707329-MS2	Matrix Spike [1706936-04]	0.0484	20	1700685	100			400x
F707329-MSD1	Matrix Spike Dup [1706935-01]	0.0152	20	1700685	100			400x
F707329-MSD2	Matrix Spike Dup [1706936-04]	0.0333	20	1700685	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1.000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1704177	70/30 Digestion Acid	07-Jan-18 00:00
			1704212	5% BrCl	18-Dec-17 00:00

DUP 2 1706936-03 RE1 1000x

1703182
1703702
1703378
1704095

PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs	Raw Data	Sample Comments	Analysis Comments
1706935-01	MMSE-1_17MN003_062117_NSS_01_BL	0.0474	20	QC	-	-	MS/MSD 400x	
1706935-08	MMSE-1_17MN002_062117_NSS_08_BL	0.1063	20	-	-	-	400x	
1706935-09	MMSE-1_17MN002_062117_NSS_09_BL	0.0591	20	-	-	-	400x	
1706935-10	MMSE-1_17MN010_062117_NSS_10_BL	0.037	20	-	-	-	400x	
1706935-11	MMSE-1_17MN011_062217_NSS_11_BL	0.0902	20	-	-	-	400x	
1706935-12	MMSE-1_17MN011_062217_NSS_12_BL	0.0775	20	-	-	-	400x	
1706935-13	MMSE-1_17MN018_062217_NSS_13_BL	0.0769	20	-	-	-	400x	
1706935-14	MMSE-1_17MN011_062217_NSS_14_BL	0.067	20	-	-	-	400x	
1706935-15	MMSE-1_17MN018_062217_NSS_15_BL	0.0799	20	-	-	-	400x	
1706936-01	MMSE-1_17MN004_062117_RWB_01_BL	0.0997	20	-	-	-	400x	
1706936-02	MMSE-1_17MN044_062717_RWB_02_BL	0.0503	20	-	-	-	400x	
1706936-03	MMSE-1_17MN047_062717_RWB_03_BL	0.071	20	-	-	-	400x → 1000x	
1706936-04	MMSE-1_17MN047_062717_RWB_04_BL	0.0421	20	QC	-	-	MS/MSD 400x → 400x	
1706936-05	MMSE-1_17MN047_062717_RWB_05_BL	0.0339	20	-	-	-	400x	
1706936-06	MMSE-1_17MN064_062817_RWB_06_BL	0.0516	20	-	-	-	400x → 1000x	
1706937-01	MMSW-C_17MN006_061917_NSS_01_BL	0.0891	20	-	-	-	400x → 1000x	
1706937-03	MMSW-C_17MN006_061917_NSS_03_BL	0.0421	20	-	-	-	400x	
1706937-04	MMSW-C_17MN009_061917_NSS_04_BL	0.1211	20	-	-	-	400x → 1000x	
1706937-05	MMSW-C_17MN009_061917_NSS_05_BL	0.0952	20	-	-	-	400x 400x	

PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

1706937-06	MMSW-C_17MN015_062017_NSS_06_BL	0.0947	20	-	-	-	400X	
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Technician: CLC Batch#: F707329 Date: 7/12/17

- EFAPS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAPS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAPS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAPS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____
 Balance#: 19 Calibrated? Yes No Therm.#: 13698 Vial Type: Glass Teflon
 Calibrated? Yes No
 •Time in: 1930 Actual Temp. (raw): 77.0 °C w/ CF: 77.0 °C
 Time out: 2130 Actual Temp. (raw): 79.0 °C w/ CF: 78.7 °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1704212) Spike vol.: 100 µL (LIMS ID: 1700685)
 Spike Witness: DM 7/12/17 (Initial and date)

HCl LIMS ID: N/A Pipette SN#: 0107852 Calibration Date: 7/7/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1704177 Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 00067065 Boiling Chip lot # 1702551 *Hotblock Position: A7B7
AMB 7-12-17

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input checked="" type="checkbox"/> N/A
1	F707329-BLK1	0.2797	23	1706936-04	0.0421	
2	F707329-BLK2	0.2678	24	1706936-05	0.0339	
3	F707329-BLK3	0.2558	25	1706936-06	0.0516	
4	F707329-BS1	0.2956	26	1706937-01	0.0891	Comments
5	F707329-BSD1	0.2953	27	1706937-03	0.0421	MS1/MSD1
6	F707329-Dup1	0.0473	28	1706937-04	0.1211	Source:
7	F707329-MS1	0.0454	29	1706937-05	0.0952	1706935-01
8	F707329-MSD1	0.0152	30	1706937-06	0.0950	MS2/MSD2
9	F707329-MS2	0.0484	31			SRC: 1706936-04
10	F707329-MSD2	0.0333	32			
11	1706935-01	0.0474	33			Dup1 SRC: 1706936-03
12	1706935-08	0.1063	34			
13	1706935-09	0.0591	35			BS/BSD:
14	1706935-10	0.0370	36			20 µl of 100 mg/mL
15	1706935-11	0.0902	37			1702555
16	1706935-12	0.0775	38			70:30 Reagent
17	1706935-13	0.0769	39			added by
18	1706935-14	0.0670	40			AMB 7/12/17
19	1706935-15	0.0799	41			5% BrCl
20	1706936-01	0.0997	42			added by
21	1706936-02	0.0503	43			AMB 7/13/17
22	1706936-03	0.0710	44			

PREPARATION BENCH SHEET

F707330

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707330-BLK1	Blank	0.25	20					20x
F707330-BLK2	Blank	0.25	20					20x
F707330-BLK3	Blank	0.25	20					20x
F707330-BS1	LCS	0.25	20	1702555	20			20x
F707330-BSD1	LCS Dup	0.25	20	1702555	20			20x
F707330-DUP1	Duplicate [1706938-02] RE1	0.0594	20					2500x
F707330-MS1	Matrix Spike [1706937-02]	0.0562	20	1700685	100			400x
F707330-MS2	Matrix Spike [1706938-05]	0.0216	20	1700685	100			400x
F707330-MSD1	Matrix Spike Dup [1706937-02]	0.0273	20	1700685	100			400x
F707330-MSD2	Matrix Spike Dup [1706938-05]	0.0126	20	1700685	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1704177	70/30 Digestion Acid	07-Jan-18 00:00
			1704212	5% BrCl	18-Dec-17 00:00

DUP 2 (AD) 1706938-02 RE1 2500x

MS 2 1706937-02 AS/ASD 100 1702556 400x 1703182
 MSD 3 1706937-02 AS/ASD 100 1702556 400x 1703782
 MS 34 1706938-05 AS/ASD 100 1702556 400x 1703376
 MSD 34 1706938-05 AS/ASD 100 1702556 400x 1704095

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707330

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706937-02	MMSW-C_17MN008_061917_NSS_02_BL	0.0462	20	QC	-	-	MS/MSD 400x	
1706937-07	MMSW-C_17MN016_062017_NSS_07_BL	0.0842	20	-	-	-	400x	
1706937-08	MMSW-C_17MN015_062017_NSS_08_BL	0.0826	20	-	-	-	400x	
1706937-09	MMSW-C_17MN010_062017_NSS_09_BL	0.0377	20	-	-	-	400x	
1706937-10	MMSW-C_17MN021_062317_NSS_10_BL	0.037	20	-	-	-	400x	
1706937-11	MMSW-C_17MN027_062317_NSS_11_BL	0.0566	20	-	-	-	400x	
1706937-12	MMSW-C_17MN026_062317_NSS_12_BL	0.0494	20	-	-	-	400x	
1706937-13	MMSW-C_17MN027_062317_NSS_13_BL	0.0794	20	-	-	-	400x	
1706937-14	MMSW-C_17MN027_062517_NSS_14_BL	0.0719	20	-	-	-	400x	
1706937-15	MMSW-C_17MN027_062517_NSS_15_BL	0.0971	20	-	-	-	400x → 100x	
1706938-01	MMSW-C_17MN009_061917_RWB_01_BL	0.092	20	-	-	-	400x → 2500x	
1706938-02	MMSW-C_17MN022_062317_RWB_02_BL	0.099	20	-	-	-	400x → 2500x	
1706938-03	MMSW-C_17MN020_062317_RWB_03_BL	0.1048	20	-	-	-	400x → 2500x	
1706938-04	MMSW-C_17MN020_062317_RWB_04_BL	0.063	20	-	-	-	400x → 400x	
1706938-05	MMSW-C_17MN036_062517_RWB_05_BL	0.0252	20	QC	-	-	MS/MSD 400x	
1706938-06	MMSW-C_17MN036_062617_RWB_06_BL	0.1743	20	-	-	-	400x → 2500x	
1706939-01	ADD-01_17MN001_062117_NSS_01_BL	0.0416	20	-	-	-	400x	
1706939-02	ADD-01_17MN001_062117_NSS_02_RL	0.093	20	-	-	-	400x	
1706939-03	ADD-01_17MN001_062117_NSS_03_BL	0.1031	20	-	-	-	400x	

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707330

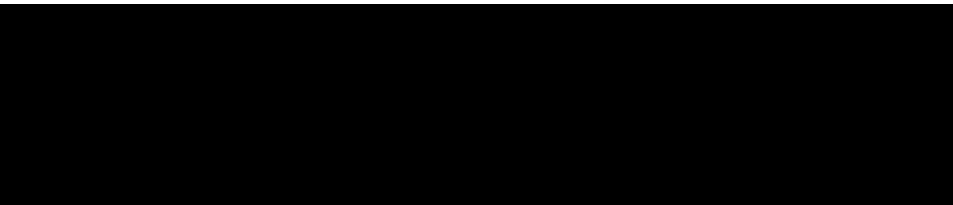
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

1706939-05	ADD-01_17MN006_062117_NSS_05_BL	0.1025	20	-	-	-	4007	
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Technician: CLL Batch#: F707350 Date: 7/12/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____
 Balance#: 19 Calibrated? Yes No Therm.#: 13698 Vial Type: Glass Teflon
 Calibrated? Yes No

*Time in: 1930 Actual Temp. (raw): 77.0 °C w/ CF: 77.0 °C

Time out: 2130 Actual Temp. (raw): 79.0 °C w/ CF: 78.7 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1704212) ^{MS/MSD} Spike vol.: 100 µL (LIMS ID: 1700685),

Spike Witness: om 7/12/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0407852 Calibration Date: 7/7/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1704177 Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes AMB 7-12-17
 Glass Vial # 0006824 Boiling Chip lot # 1702551 *Hotblock Position: A7 BOB7
AMB 7-12-17

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input checked="" type="checkbox"/> N/A
1	F707330-BLK1	0.2969	23	1706938-03	0.1048	
2	F707330-BLK2	0.2881	24	1706938-04	0.0630	
3	F707330-BLK3	0.2642	25	1706938-05	0.0252	
4	F707330-BS1	0.2523	26	1706938-06	0.1743	Comments
5	F707330-BSD1	0.1741	27	1706939-01	0.0416	MS1/MSD1
6	F707330-Dup1	0.0594	28	1706939-02	0.0930	SRL: 1706937-02
7	F707330-MS1	0.0562	29	1706939-03	0.11031	MS2/MSD2
8	F707330-MSD1	0.0273	30	1706939-05	0.1025	SRL: 1706938-05 1706938-05
9	F707330-MS2	0.0216	31			
10	F707330-MSD2	0.0126	32			
11	1706937-02	0.0462	33			Dup1 SRL: 1706938-02
12	1706937-07	0.0842	34			
13	1706937-08	0.0826	35			BS/BSD: 20ul of 100µg/ml 1702559
14	1706937-09	0.0377	36			70:30 reagent added by AMB 7/12/17
15	1706937-10	0.0370	37			5% BrCl added by AMB 7/13/17
16	1706937-11	0.0566	38			
17	1706937-12	0.0494	39			
18	1706937-13	0.0794	40			
19	1706937-14	0.0719	41			
20	1706937-15	0.0971	42			
21	1706938-01	0.0920	43			
22	1706938-02	0.10990	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7G18008
Reviewer: 0	Dataset ID(s): THg26002-170717-1
Date: 7/18/2017	WO (s) #: Various
Batch #(s): F707329, F707330	0

Analyst Initials BC Reviewer Initials DM

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input type="checkbox"/> |
| Comments: <u>Samples off curve, Failing DUPs, Failing MS/MSD RPD and Failing CCV</u> | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7G18008
Reviewer: 0	Dataset ID(s): THg26002-170717-1
Date: 7/18/2017	WO (s) #: Various
Batch #(s): F707329, F707330	0

Analyst Initials BC **Reviewer Initials** DM

- | | | | | |
|--|--|-------------------------------|---|-------------------------------------|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Files located at: \\Cuprumigen_admin\Quality Assurance\Training Master\DOCs

- | | | | | | |
|---|-----------|----------------------------------|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ | 1/27/2017 | IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ | 5/20/2017 | Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ | 5/9/2017 | LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ | 5/9/2017 | LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1706939

July 20, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1706939

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July 20, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ADD-01_17MN001_062117_NSS_01_BL	1706939-01	Tissue	21-Jun-17 07:10	30-Jun-17 09:50
ADD-01_17MN001_062117_NSS_02_BL	1706939-02	Tissue	21-Jun-17 07:00	30-Jun-17 09:50
ADD-01_17MN001_062117_NSS_03_BL	1706939-03	Tissue	21-Jun-17 07:40	30-Jun-17 09:50
ADD-01_17MN009_062117_NSS_04_BL	1706939-04	Tissue	21-Jun-17 07:35	30-Jun-17 09:50
ADD-01_17MN006_062117_NSS_05_BL	1706939-05	Tissue	21-Jun-17 08:20	30-Jun-17 09:50
ADD-01_17MN004_062117_NSS_06_BL	1706939-06	Tissue	21-Jun-17 09:15	30-Jun-17 09:50
ADD-01_17MN006_062117_NSS_07_BL	1706939-07	Tissue	21-Jun-17 09:10	30-Jun-17 09:50
ADD-01_17MN006_062117_NSS_08_BL	1706939-08	Tissue	21-Jun-17 11:50	30-Jun-17 09:50
ADD-01_17MN001_062217_NSS_09_BL	1706939-09	Tissue	22-Jun-17 06:40	30-Jun-17 09:50
ADD-01_17MN007_062217_NSS_10_BL	1706939-10	Tissue	22-Jun-17 07:20	30-Jun-17 09:50
ADD-01_17MN002_062217_NSS_11_BL	1706939-11	Tissue	22-Jun-17 08:00	30-Jun-17 09:50
ADD-01_17MN002_062217_NSS_12_BL	1706939-12	Tissue	22-Jun-17 08:40	30-Jun-17 09:50
ADD-01_17MN011_062217_NSS_13_BL	1706939-13	Tissue	22-Jun-17 11:50	30-Jun-17 09:50
ADD-01_17MN050_062717_NSS_14_BL	1706939-14	Tissue	27-Jun-17 08:15	30-Jun-17 09:50
ADD-01_17MN051_062717_NSS_15_BL	1706939-15	Tissue	27-Jun-17 09:30	30-Jun-17 09:50

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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 6/30/2017 9:50:00 AM . The samples were received intact, on-ice within a sealed cooler at -33.8 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per work instructions EFSR-P-SP-WI11642 (eff date 11/23/16) prior to digestion.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches; F707330 and F707331. They were analyzed in sequences 7G18008 and 7G19019. Per client request, sample 1706939-04 was used as the source QC for the Matrix Spike (MS) and Matrix Spike Duplicate (MSD) in batch F707331.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

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Amy Goodall, Project Manager

Sample Receipt Checklist

EFGS Work Order: 706939

Client: AMEZ Foster Wheeler Date & Time Received: 6/30/17 9:52 Date Labeled: 7/3/17 Labeled By: AF

Project: _____ Received By: LM Label Verified By: _____

of Coolers Received: 1 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify): _____

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>Y</u>	

TID:	CF:	°C	Date/Time:	By:
<u>4318U</u>	<u>W/CF: -34</u>	<u>°C</u>	<u>6/30/17 9:52</u>	<u>LM</u>
Cooler 1:	<u>-34</u>	<u>°C</u>	Cooler 4:	<u>°C</u>
Cooler 2:	<u>°C</u>	<u>°C</u>	Cooler 5:	<u>°C</u>
Cooler 3:	<u>°C</u>	<u>°C</u>	Cooler 6:	<u>°C</u>

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>NA</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>Y</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>Y</u>	

Anomalies/Non-conformances (attach additional pages if needed):



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ADD-01_17MN001_062117_NSS_01_BL
1706939-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	508	10.8	96.2	ng/g	400	F707330	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	
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AMEC Foster Wheeler
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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ADD-01_17MN001_062117_NSS_02_BL
1706939-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	520	4.82	43.0	ng/g	400	F707330	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ADD-01_17MN001_062117_NSS_03_BL
1706939-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	342	4.35	38.8	ng/g	400	F707330	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ADD-01_17MN009_062117_NSS_04_BL
1706939-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	280	9.96	88.9	ng/g	400	F707331	12-Jul-17	7G19019	18-Jul-17	EPA 1631B	

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271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ADD-01_17MN006_062117_NSS_05_BL
1706939-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	465	4.37	39.0	ng/g	400	F707330	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ADD-01_17MN004_062117_NSS_06_BL
1706939-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	375	5.45	48.7	ng/g	400	F707331	12-Jul-17	7G19019	18-Jul-17	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ADD-01_17MN006_062117_NSS_07_BL
1706939-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	339	4.39	39.2	ng/g	100	F707331	12-Jul-17	7G19019	18-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ADD-01_17MN006_062117_NSS_08_BL
1706939-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	343	4.65	41.5	ng/g	400	F707331	12-Jul-17	7G19019	18-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ADD-01_17MN001_062217_NSS_09_BL
1706939-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	343	6.86	61.3	ng/g	400	F707331	12-Jul-17	7G19019	18-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ADD-01_17MN007_062217_NSS_10_BL
1706939-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	219	7.65	68.3	ng/g	400	F707331	12-Jul-17	7G19019	18-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ADD-01_17MN002_062217_NSS_11_BL
1706939-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	378	5.46	48.8	ng/g	400	F707331	12-Jul-17	7G19019	18-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ADD-01_17MN002_062217_NSS_12_BL
1706939-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	373	7.34	65.6	ng/g	400	F707331	12-Jul-17	7G19019	18-Jul-17	EPA 1631B	

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Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ADD-01_17MN011_062217_NSS_13_BL
1706939-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	264	4.29	38.3	ng/g	400	F707331	12-Jul-17	7G19019	18-Jul-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ADD-01_17MN050_062717_NSS_14_BL
1706939-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	460	5.86	52.4	ng/g	400	F707331	12-Jul-17	7G19019	18-Jul-17	EPA 1631B	

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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

ADD-01_17MN051_062717_NSS_15_BL
1706939-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	618	4.52	40.3	ng/g	400	F707331	12-Jul-17	7G19019	18-Jul-17	EPA 1631B	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	Reported: 20-Jul-17 14:26
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7G18008 - F707329											
Cal Standard (7G18008-CAL1) Prepared & Analyzed: 17-Jul-17											
Mercury	0.535	-		ng/L	0.50100		107				
Cal Standard (7G18008-CAL2) Prepared & Analyzed: 17-Jul-17											
Mercury	1.039	-		ng/L	1.0020		104				
Cal Standard (7G18008-CAL3) Prepared & Analyzed: 17-Jul-17											
Mercury	4.926	-		ng/L	5.0100		98.3				
Cal Standard (7G18008-CAL4) Prepared & Analyzed: 17-Jul-17											
Mercury	18.90	-		ng/L	20.040		94.3				
Cal Standard (7G18008-CAL5) Prepared & Analyzed: 17-Jul-17											
Mercury	38.47	-		ng/L	40.080		96.0				
Calibration Blank (7G18008-CCB1) Prepared & Analyzed: 17-Jul-17											
Mercury	0.186	-		ng/L							
Calibration Blank (7G18008-CCB2) Prepared & Analyzed: 17-Jul-17											
Mercury	0.272	-		ng/L							
Calibration Blank (7G18008-CCB3) Prepared & Analyzed: 17-Jul-17											
Mercury	0.297	-		ng/L							
Calibration Blank (7G18008-CCB4) Prepared & Analyzed: 17-Jul-17											
Mercury	0.259	-		ng/L							
Calibration Blank (7G18008-CCB5) Prepared & Analyzed: 17-Jul-17											
Mercury	0.246	-		ng/L							

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	Reported: 20-Jul-17 14:26
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7G18008 - F707329											
Calibration Blank (7G18008-CCB7) Prepared & Analyzed: 17-Jul-17											
Mercury	0.225	-		ng/L							
Calibration Blank (7G18008-CCB8) Prepared & Analyzed: 17-Jul-17											
Mercury	0.198	-		ng/L							
Calibration Blank (7G18008-CCB9) Prepared & Analyzed: 17-Jul-17											
Mercury	0.321	-		ng/L							
Calibration Blank (7G18008-CCBA) Prepared & Analyzed: 17-Jul-17											
Mercury	0.448	-		ng/L							
Calibration Check (7G18008-CCV1) Prepared & Analyzed: 17-Jul-17											
Mercury	5.232	-		ng/L	5.0000		105	77-123			
Calibration Check (7G18008-CCV2) Prepared & Analyzed: 17-Jul-17											
Mercury	5.496	-		ng/L	5.0000		110	77-123			
Calibration Check (7G18008-CCV3) Prepared & Analyzed: 17-Jul-17											
Mercury	5.643	-		ng/L	5.0000		113	77-123			
Calibration Check (7G18008-CCV4) Prepared & Analyzed: 17-Jul-17											
Mercury	5.390	-		ng/L	5.0000		108	77-123			
Calibration Check (7G18008-CCV5) Prepared & Analyzed: 17-Jul-17											
Mercury	5.377	-		ng/L	5.0000		108	77-123			
Calibration Check (7G18008-CCV7) Prepared & Analyzed: 17-Jul-17											
Mercury	5.202	-		ng/L	5.0000		104	77-123			

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7G18008 - F707329

Calibration Check (7G18008-CCV8) Prepared & Analyzed: 17-Jul-17

Mercury	5.136	-		ng/L	5.0000		103	77-123			
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Calibration Check (7G18008-CCV9) Prepared & Analyzed: 17-Jul-17

Mercury	5.494	-		ng/L	5.0000		110	77-123			
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Calibration Check (7G18008-CCVA) Prepared & Analyzed: 17-Jul-17

Mercury	5.685	-		ng/L	5.0000		114	77-123			
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Instrument Blank (7G18008-IBL1) Prepared & Analyzed: 17-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G18008-IBL2) Prepared & Analyzed: 17-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G18008-IBL3) Prepared & Analyzed: 17-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7G18008-ICV1) Prepared & Analyzed: 17-Jul-17

Mercury	5.266	-		ng/L	5.0000		105	79-121			
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Batch 7G19019 - F707331

Cal Standard (7G19019-CAL1) Prepared & Analyzed: 18-Jul-17

Mercury	0.501	-		ng/L	0.50100		99.9				
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Cal Standard (7G19019-CAL2) Prepared & Analyzed: 18-Jul-17

Mercury	1.058	-		ng/L	1.0020		106				
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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7G19019 - F707331

Cal Standard (7G19019-CAL3)					Prepared & Analyzed: 18-Jul-17						
Mercury	5.086	-		ng/L	5.0100		102				
Cal Standard (7G19019-CAL4)					Prepared & Analyzed: 18-Jul-17						
Mercury	19.23	-		ng/L	20.040		95.9				
Cal Standard (7G19019-CAL5)					Prepared & Analyzed: 18-Jul-17						
Mercury	38.49	-		ng/L	40.080		96.0				
Calibration Blank (7G19019-CCB1)					Prepared & Analyzed: 18-Jul-17						
Mercury	0.074	-		ng/L							
Calibration Blank (7G19019-CCB2)					Prepared & Analyzed: 18-Jul-17						
Mercury	0.106	-		ng/L							
Calibration Blank (7G19019-CCB3)					Prepared & Analyzed: 18-Jul-17						
Mercury	0.169	-		ng/L							
Calibration Blank (7G19019-CCB4)					Prepared & Analyzed: 18-Jul-17						
Mercury	0.511	-		ng/L							
Calibration Check (7G19019-CCV1)					Prepared & Analyzed: 18-Jul-17						
Mercury	5.030	-		ng/L	5.0000		101	77-123			
Calibration Check (7G19019-CCV2)					Prepared & Analyzed: 18-Jul-17						
Mercury	5.178	-		ng/L	5.0000		104	77-123			
Calibration Check (7G19019-CCV3)					Prepared & Analyzed: 18-Jul-17						
Mercury	5.258	-		ng/L	5.0000		105	77-123			

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	Reported: 20-Jul-17 14:26
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7G19019 - F707331

Calibration Check (7G19019-CCV4) Prepared & Analyzed: 18-Jul-17

Mercury	5.931	-		ng/L	5.0000		119	77-123			
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Instrument Blank (7G19019-IBL1) Prepared & Analyzed: 18-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G19019-IBL2) Prepared & Analyzed: 18-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G19019-IBL3) Prepared & Analyzed: 18-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7G19019-ICV1) Prepared & Analyzed: 18-Jul-17

Mercury	5.365	-		ng/L	5.0000		107	79-121			
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Batch F707330 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F707330-BLK1) Prepared: 12-Jul-17 Analyzed: 17-Jul-17

Mercury	0.692	0.090	0.800	ng/g							J
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Blank (F707330-BLK2) Prepared: 12-Jul-17 Analyzed: 17-Jul-17

Mercury	0.335	0.090	0.800	ng/g							J
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Blank (F707330-BLK3) Prepared: 12-Jul-17 Analyzed: 17-Jul-17

Mercury	0.258	0.090	0.800	ng/g							J
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LCS (F707330-BS1) Prepared: 12-Jul-17 Analyzed: 17-Jul-17

Mercury	7.147	0.090	0.800	ng/g	8.0160		89.2	75-125			
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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F707330 - EFGS-011 Nitric/Sulfuric Hg Digestion											
LCS Dup (F707330-BSD1)					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	7.298	0.090	0.800	ng/g	8.0160		91.0	75-125	2.08	24	
Duplicate (F707330-DUP1)					Source: 1706938-02RE1 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	778.0	7.54	67.3	ng/g		6016			154	24	QR-07
Duplicate (F707330-DUP2)					Source: 1706938-02RE1 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	5567	28.3	253	ng/g		6016			7.75	24	AD
Matrix Spike (F707330-MS1)					Source: 1706937-02 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	4766	7.97	71.2	ng/g	1782.9	2991	99.6	71-125			
Matrix Spike (F707330-MS2)					Source: 1706938-05 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	9532	20.7	185	ng/g	4638.9	5021	97.2	71-125			
Matrix Spike (F707330-MS3)					Source: 1706937-02 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	6523	9.70	86.6	ng/g	3470.1	2991	102	71-125			AS
Matrix Spike (F707330-MS4)					Source: 1706938-05 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	11300	17.8	159	ng/g	6361.9	5021	98.6	71-125			AS
Matrix Spike Dup (F707330-MSD1)					Source: 1706937-02 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	7498	16.4	147	ng/g	3670.3	2991	123	71-125	20.9	24	
Matrix Spike Dup (F707330-MSD2)					Source: 1706938-05 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	13400	35.6	317	ng/g	7952.4	5021	105	71-125	7.96	24	
Matrix Spike Dup (F707330-MSD3)					Source: 1706937-02 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	6437	9.70	86.6	ng/g	3470.1	2991	99.3	71-125	2.46	24	AS

Eurofins Frontier Global Sciences, Inc.



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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	Reported: 20-Jul-17 14:26
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F707330 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Matrix Spike Dup (F707330-MSD4) Source: 1706938-05 Prepared: 12-Jul-17 Analyzed: 17-Jul-17											
Mercury	11520	17.8	159	ng/g	6361.9	5021	102	71-125	3.48	24	AS
Batch F707331 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F707331-BLK1) Prepared: 12-Jul-17 Analyzed: 18-Jul-17											
Mercury	0.319	0.090	0.800	ng/g							J
Blank (F707331-BLK2) Prepared: 12-Jul-17 Analyzed: 18-Jul-17											
Mercury	0.224	0.090	0.800	ng/g							J
Blank (F707331-BLK3) Prepared: 12-Jul-17 Analyzed: 18-Jul-17											
Mercury	0.118	0.090	0.800	ng/g							J
Blank (F707331-BLK4) Prepared: 12-Jul-17 Analyzed: 18-Jul-17											
Mercury	5.021	1.77	15.8	ng/g							FB, J
LCS (F707331-BS1) Prepared: 12-Jul-17 Analyzed: 18-Jul-17											
Mercury	7.300	0.090	0.800	ng/g	8.0160		91.1	75-125			
LCS Dup (F707331-BSD1) Prepared: 12-Jul-17 Analyzed: 18-Jul-17											
Mercury	7.665	0.090	0.800	ng/g	8.0160		95.6	75-125	4.88	24	
Duplicate (F707331-DUP1) Source: 1706931-05 Prepared: 12-Jul-17 Analyzed: 18-Jul-17											
Mercury	105.7	1.59	14.2	ng/g		93.73			12.0	24	
Matrix Spike (F707331-MS1) Source: 1706939-04 Prepared: 12-Jul-17 Analyzed: 18-Jul-17											
Mercury	2850	12.0	108	ng/g	2693.5	280.0	95.4	71-125			

Eurofins Frontier Global Sciences, Inc.



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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: 2017 Penobscot Biota
Project Manager: Denise King

Reported:
20-Jul-17 14:26

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F707331 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike (F707331-MS2)		Source: 1706298-02			Prepared: 12-Jul-17 Analyzed: 18-Jul-17						
Mercury	402.0	1.65	14.7	ng/g	368.65	34.79	99.6	71-125			
Matrix Spike Dup (F707331-MSD1)		Source: 1706939-04			Prepared: 12-Jul-17 Analyzed: 18-Jul-17						
Mercury	3552	13.8	123	ng/g	3083.1	280.0	106	71-125	10.6	24	
Matrix Spike Dup (F707331-MSD2)		Source: 1706298-02			Prepared: 12-Jul-17 Analyzed: 18-Jul-17						
Mercury	414.0	1.72	15.3	ng/g	384.20	34.79	98.7	71-125	0.913	24	

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
 271 Mill Road
 Chelmsford MA, 01824

Project: 2017 Penobscot Biota
 Project Number: 2017 Penobscot Biota
 Project Manager: Denise King

Reported:
 20-Jul-17 14:26

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-08 The RPD value for the MS/MSD was outside of acceptance limits. Batch QC acceptable based on matrix duplicate and/or LCS/LCSD RPD values within control limits.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- J The result is an estimated concentration.
- FB This blank is a filtration blank. Data is reported for informational purposes only.
- E-01 Sample was preceded by a sample exceeding the calibration curve and was reanalyzed for confirmation.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- AS This MS and/or MSD is an analytical spike and/or an analytical spike duplicate.
- AD This matrix duplicate is an analytical duplicate.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Analysis Datasheet for Total Mercury

Date of Analysis: July 17, 2017

Analyst: BC

Instrument #: Hg2600 2

Units: ng/L

LIMS Sequence #: 7G18008

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	164.07 units	328.14	145.90 units	291.79	106.9 %Rec
SEQ-CAL2	1	1.00 ng/L	301.59 units	301.59	283.42 units	283.42	103.9 %Rec
SEQ-CAL3	1	5.00 ng/L	1362.29 units	272.46	1344.12 units	268.82	98.5 %Rec
SEQ-CAL4	1	20.00 ng/L	5176.52 units	258.83	5158.35 units	257.92	94.5 %Rec
SEQ-CAL5	1	40.00 ng/L	10514.64 units	262.87	10495.47 units	262.41	96.2 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						
Corr. Mean RF		Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF			
272.87	+/- 14.31	5.2% RSD	284.78				

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IOL	3	18.17 units	±2.43	0.06 ng/L	+0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	2.889 ng/L	±1.131
BLK	2	3	5.352 ng/L	±2.892
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER - REVIEWED
 INITIALS: DM 7/18/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-IBL1	1	7/17/2017 8:00:57	81244-1.RAW	8:30:57 AM	20.93			2.8	0.010	0.010	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	7/17/2017 8:05:05	81245-1.RAW	8:05:05 AM	16.33			-1.8	-0.007	-0.007	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	7/17/2017 8:08:14	81246-1.RAW	8:09:14 AM	17.26			-0.9	-0.003	-0.003	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	7/17/2017 8:13:22	81247-1.RAW	8:13:22 AM	164.07			145.9	0.535	0.535	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	7/17/2017 8:17:30	81248-1.RAW	8:17:30 AM	301.95			283.4	1.039	1.039	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	7/17/2017 8:21:39	81249-1.RAW	8:21:39 AM	1362.29			1344.1	4.926	4.926	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	7/17/2017 8:25:47	81250-1.RAW	8:25:47 AM	5176.52			5158.3	18.904	18.904	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	7/17/2017 8:29:56	81251-1.RAW	8:29:56 AM	10514.84			10496.5	38.467	38.467	ng/L	
Hg2600-2	BC	CAL	SEQ-CV1	1	7/17/2017 8:34:04	81252-1.RAW	8:34:04 AM	1455.74			1437.0	5.266	5.266	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 8:46:45	81253-1.RAW	8:46:45 AM	72.09		x	153.9	0.564	0.000	ng/L	
Hg2600-2	BC	SAM	EFGS07217 TV 2700ng	2500	7/17/2017 8:50:54	81254-1.RAW	8:50:54 AM	2780.69		x	2762.5	10.124	25309.595	ng/L	
Hg2600-2	BC	SAM	EFGS05672 TV 2700ng	2500	7/17/2017 8:55:02	81255-1.RAW	8:55:02 AM	2793.69		x	2775.5	10.171	25428.698	ng/L	
Hg2600-2	BC	BLK	F707329-BLK1	20	7/17/2017 8:59:11	81256-1.RAW	8:59:11 AM	75.39		1	57.2	0.210	4.194	ng/L	
Hg2600-2	BC	BLK	F707329-BLK2	20	7/17/2017 9:03:10	81257-1.RAW	9:03:19 AM	49.24		1	31.1	0.114	2.277	ng/L	
Hg2600-2	BC	BLK	F707329-BLK3	20	7/17/2017 9:07:27	81258-1.RAW	9:07:27 AM	48.12		1	29.9	0.110	2.195	ng/L	
Hg2600-2	BC	SAM	F707329-BS1	20	7/17/2017 9:11:38	81259-1.RAW	9:11:36 AM	1343.03		1	1325.4	4.713	94.258	ng/L	
Hg2600-2	BC	SAM	F707329-BSU1	20	7/17/2017 9:15:44	81260-1.RAW	9:15:44 AM	1340.88		1	1322.7	4.703	94.058	ng/L	
Hg2600-2	BC	SAM	1706935-01	400	7/17/2017 9:19:53	81261-1.RAW	9:19:53 AM	3813.29		1	3795.1	13.901	5560.306	ng/L	
Hg2600-2	BC	SAM	1706935-08	400	7/17/2017 9:24:01	81262-1.RAW	9:24:01 AM	5728.83		1	5710.7	20.921	8368.285	ng/L	
Hg2600-2	BC	SAM	1706935-09	400	7/17/2017 9:28:09	81263-1.RAW	9:28:09 AM	3694.59		1	3676.4	13.466	5386.320	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1		7/17/2017 9:32:18	81264-1.RAW	9:32:18 AM	1445.78			1427.6	5.232	5.232	ng/L	
Hg2600-2	BC	CAL	SEQ-COB1		7/17/2017 9:36:26	81265-1.RAW	9:36:26 AM	68.85			50.7	0.186	0.186	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 9:50:40	81266-1.RAW	9:50:40 AM	188.03		x	147.9	0.542	0.000	ng/L	
Hg2600-2	BC	SAM	1706935-10	400	7/17/2017 9:54:46	81267-1.RAW	9:54:49 AM	1642.20		1	1624.0	5.914	2377.750	ng/L	
Hg2600-2	BC	SAM	1706935-11	400	7/17/2017 9:58:57	81268-1.RAW	9:58:57 AM	5994.44		1	5976.5	21.894	8757.639	ng/L	
Hg2600-2	BC	SAM	1706935-12	400	7/17/2017 10:03:05	81269-1.RAW	10:03:05 AM	4808.27		1	4790.1	17.517	7018.948	ng/L	
Hg2600-2	BC	SAM	1706935-13	400	7/17/2017 10:07:14	81270-1.RAW	10:07:14 AM	7051.18		1	7013.0	25.693	10277.308	ng/L	
Hg2600-2	BC	SAM	1706935-14	400	7/17/2017 10:11:22	81271-1.RAW	10:11:22 AM	6924.92		1	6906.7	25.304	10121.517	ng/L	
Hg2600-2	BC	SAM	1706935-15	400	7/17/2017 10:15:31	81272-1.RAW	10:15:31 AM	6366.91		1	6378.7	23.369	9347.614	ng/L	
Hg2600-2	BC	SAM	1706936-01	400	7/17/2017 10:19:39	81273-1.RAW	10:19:39 AM	3728.74		1	3710.6	13.591	5436.380	ng/L	
Hg2600-2	BC	SAM	1706936-02	400	7/17/2017 10:23:48	81274-1.RAW	10:23:48 AM	10755.70		1	10737.5	39.343	15737.104	ng/L	
Hg2600-2	BC	SAM	1706936-03	400	7/17/2017 10:27:56	81275-1.RAW	10:27:56 AM	11913.88		1	11895.7	43.587	17434.879	ng/L	
Hg2600-2	BC	SAM	1706936-04	400	7/17/2017 10:32:04	81276-1.RAW	10:32:04 AM	8630.49		1	8612.3	33.564	5585.534	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	7/17/2017 10:36:13	81277-1.RAW	10:36:13 AM	1517.96			1499.7	5.496	5.496	ng/L	
Hg2600-2	BC	CAL	SEQ-CCR2	1	7/17/2017 10:40:21	81278-1.RAW	10:40:21 AM	92.44			74.3	0.272	0.272	ng/L	
Hg2600-2	BC	SAM	1706936-05	400	7/17/2017 10:44:51	81279-1.RAW	10:44:51 AM	1347.41		1	1329.2	4.864	1945.621	ng/L	
Hg2600-2	BC	SAM	1706936-06	400	7/17/2017 10:48:59	81280-1.RAW	10:48:59 AM	11446.59		1	11428.4	41.875	16749.670	ng/L	
Hg2600-2	BC	SAM	1706937-01	400	7/17/2017 10:53:08	81281-1.RAW	10:53:08 AM	10378.06		1	10357.9	37.951	15180.595	ng/L	
Hg2600-2	BC	SAM	1706937-03	400	7/17/2017 10:57:16	81282-1.RAW	10:57:16 AM	6046.25		1	6028.1	22.084	8833.585	ng/L	
Hg2600-2	BC	SAM	1706937-04	400	7/17/2017 11:01:25	81283-1.RAW	11:01:25 AM	17572.75		1	17554.1	64.323	25729.391	ng/L	
Hg2600-2	BC	SAM	1706937-05	400	7/17/2017 11:05:33	81284-1.RAW	11:05:33 AM	4750.23		1	4732.1	17.334	6933.768	ng/L	
Hg2600-2	BC	SAM	1706937-08	400	7/17/2017 11:09:41	81285-1.RAW	11:09:41 AM	8980.43		1	8962.3	23.507	10202.988	ng/L	
Hg2600-2	BC	SAM	1706938-03RE1	1000	7/17/2017 11:13:50	81286-1.RAW	11:13:50 AM	5994.48		1	5976.3	21.899	21898.576	ng/L	
Hg2600-2	BC	SAM	1706938-04RE1	400	7/17/2017 11:17:56	81287-1.RAW	11:17:58 AM	3872.28		1	3854.1	14.117	5646.793	ng/L	
Hg2600-2	BC	SAM	F707329-DUP1	400	7/17/2017 11:22:07	81288-1.RAW	11:22:07 AM	6658.60		1	6640.6	24.329	9731.515	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	7/17/2017 11:26:15	81289-1.RAW	11:26:15 AM	1558.12			1539.9	5.643	5.643	ng/L	
Hg2600-2	BC	CAL	SEQ-CCR3	1	7/17/2017 11:30:24	81290-1.RAW	11:30:24 AM	99.33			81.2	0.297	0.297	ng/L	
Hg2600-2	BC	SAM	F707329-MS1	400	7/17/2017 11:34:32	81291-1.RAW	11:34:32 AM	7000.49		1	6982.3	25.581	10232.394	ng/L	
Hg2600-2	BC	SAM	F707329-MSD1	400	7/17/2017 11:38:41	81292-1.RAW	11:38:41 AM	5345.47		1	5327.3	19.516	7806.322	ng/L	
Hg2600-2	BC	SAM	F707329-MS2	400	7/17/2017 11:42:49	81293-1.RAW	11:42:49 AM	7051.89		1	7033.7	25.769	10307.740	ng/L	
Hg2600-2	BC	SAM	F707329-MSD2	400	7/17/2017 11:46:57	81294-1.RAW	11:46:57 AM	6943.65		1	6925.5	25.373	10149.072	ng/L	
Hg2600-2	BC	SAM	1706938-06RE1	1000	7/17/2017 11:50:58	81295-1.RAW	11:50:58 AM	5082.64		1	5074.4	18.590	18593.222	ng/L	
Hg2600-2	BC	SAM	1706937-01RE1	1000	7/17/2017 12:04:06	81296-1.RAW	12:04:06 PM	4225.02		1	4206.8	15.414	15414.008	ng/L	
Hg2600-2	BC	SAM	1706937-04RE1	1000	7/17/2017 12:08:15	81297-1.RAW	12:08:15 PM	8941.13		1	8923.0	25.368	25367.779	ng/L	
Hg2600-2	BC	SAM	1706937-05RE1	400	7/17/2017 12:12:23	81298-1.RAW	12:12:23 PM	4692.48		1	4574.3	16.756	6707.525	ng/L	
Hg2600-2	BC	SAM	F707329-DUP2	4000	7/17/2017 12:16:32	81299-1.RAW	12:16:32 PM	4734.51		1	4716.3	17.281	17281.144	ng/L	
Hg2600-2	BC	BLK	F707329-BLK1	20	7/17/2017 12:20:40	81300-1.RAW	12:20:40 PM	136.11		2	117.9	0.432	8.644	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-CCV4	1	7/17/2017 12:24:48	81301-1.RAW	12:24:49 PM	1488.93			1470.8	5.390	5.390	ng/L	
Hg2600-2	BC	CAL	SFQ-CGR4	1	7/17/2017 12:28:57	81302-1.RAW	12:28:57 PM	88.88			70.7	0.259	0.259	ng/L	
Hg2600-2	BC	BLK	F707330-BLK2	20	7/17/2017 12:33:05	81303-1.RAW	12:33:05 PM	75.33	2		57.2	0.209	4.189	ng/L	
Hg2600-2	BC	BLK	F707330-BLK3	20	7/17/2017 12:37:14	81304-1.RAW	12:37:14 PM	62.14	2		44.0	0.161	3.273	ng/L	
Hg2600-2	BC	SAM	F707330-BS1	20	7/17/2017 12:41:22	81305-1.RAW	12:41:22 PM	1310.13	2		1292.0	4.467	89.341	ng/L	
Hg2600-2	BC	SAM	F707330-BSD1	20	7/17/2017 12:45:31	81306-1.RAW	12:45:31 PM	1535.78	2		1317.6	4.561	91.221	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 12:56:10	81307-1.RAW	12:56:10 PM	156.74	x		138.6	0.508	0.000	ng/L	
Hg2600-2	BC	SAM	1706937-02	400	7/17/2017 13:00:18	81308-1.RAW	1:00:18 PM	4734.72	2		4716.5	17.271	6908.569	ng/L	
Hg2600-2	DC	SAM	1706937-07	400	7/17/2017 13:04:26	81309-1.RAW	1:04:26 PM	6324.36	2		6306.2	23.007	9238.800	ng/L	
Hg2600-2	BC	SAM	1706937-08	400	7/17/2017 13:08:35	81310-1.RAW	1:08:35 PM	6515.76	2		6497.6	23.798	9519.371	ng/L	
Hg2600-2	BC	SAM	1706937-09	400	7/17/2017 13:12:43	81311-1.RAW	1:12:43 PM	3108.27	2		3088.1	11.304	4521.447	ng/L	
Hg2600-2	BC	SAM	1706937-10	400	7/17/2017 13:16:52	81312-1.RAW	1:16:52 PM	2719.49	2		2701.3	9.886	3954.471	ng/L	
Hg2600-2	BC	SAM	1706937-11	400	7/17/2017 13:21:00	81313-1.RAW	1:21:00 PM	3678.83	2		3660.7	13.402	5360.754	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	7/17/2017 13:25:08	81314-1.RAW	1:25:08 PM	1485.47			1467.3	5.377	5.377	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	7/17/2017 13:29:17	81315-1.RAW	1:29:17 PM	85.21			67.0	0.246	0.246	ng/L	
Hg2600-2	BC	SAM	1706937-12	400	7/17/2017 13:33:25	81316-1.RAW	1:33:25 PM	8466.75	2		8448.6	30.948	12379.301	ng/L	
Hg2600-2	BC	SAM	1706937-13	400	7/17/2017 13:37:34	81317-1.RAW	1:37:34 PM	8904.13	2		8886.0	32.551	13070.450	ng/L	
Hg2600-2	BC	SAM	1706937-14	400	7/17/2017 13:41:42	81318-1.RAW	1:41:42 PM	10834.90	2		10816.7	39.627	15850.739	ng/L	
Hg2600-2	BC	SAM	1706937-15	400	7/17/2017 13:45:50	81319-1.RAW	1:45:50 PM	11918.84	2		11900.7	43.599	17439.672	ng/L	
Hg2600-2	DC	SAM	1706938-01	400	7/17/2017 13:49:59	81320-1.RAW	1:49:59 PM	17171.50	2		17103.3	62.665	25066.180	ng/L	
Hg2600-2	BC	SAM	1706938-02	400	7/17/2017 13:54:07	81321-1.RAW	1:54:07 PM	18847.03	2		18828.9	68.989	27595.610	ng/L	
Hg2600-2	DC	SAM	1706938-03	400	7/17/2017 13:58:16	81322-1.RAW	1:58:16 PM	29097.87	2		29079.7	106.555	42622.176	ng/L	
Hg2600-2	BC	SAM	1706938-04	400	7/17/2017 14:02:24	81323-1.RAW	2:02:24 PM	2468.59	2		2450.4	8.957	3586.680	ng/L	
Hg2600-2	BC	SAM	1706938-05	400	7/17/2017 14:06:33	81324-1.RAW	2:06:33 PM	4337.37	2		4319.2	15.815	6326.039	ng/L	
Hg2600-2	BC	SAM	1706938-06	400	7/17/2017 14:10:42	81325-1.RAW	2:10:42 PM	40088.58	2		40070.4	146.833	56733.307	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	7/17/2017 14:14:50	81326-1.RAW	2:14:50 PM	1826.87			1808.7	6.628	6.628	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	7/17/2017 14:18:59	81327-1.RAW	2:18:59 PM	197.42			179.2	0.657	0.657	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 14:23:42	81328-1.RAW	2:23:42 PM	160.30	x		142.1	0.521	0.000	ng/L	
Hg2600-2	BC	SAM	clean		7/17/2017 14:27:50	81329-1.RAW	2:27:50 PM	108.70	x		90.5	0.332	0.000	ng/L	
Hg2600-2	BC	SAM	clean		7/17/2017 14:30:41	81330-1.RAW	2:30:41 PM	35.50	x		17.3	0.063	0.000	ng/L	
Hg2600-2	BC	SAM	ws		7/17/2017 14:34:50	81331-1.RAW	2:34:50 PM	104.16	x		86.0	0.315	0.000	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	7/17/2017 14:38:59	81332-1.RAW	2:38:59 PM	1437.53			1419.4	5.202	5.202	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	7/17/2017 14:43:08	81333-1.RAW	2:43:08 PM	75.53			61.4	0.225	0.225	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8	1	7/17/2017 14:47:16	81334-1.RAW	2:47:16 PM	1419.58			1401.4	5.136	5.136	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB8	1	7/17/2017 14:51:25	81335-1.RAW	2:51:25 PM	72.31			54.1	0.198	0.198	ng/L	
Hg2600-2	BC	SAM	1706939-01	400	7/17/2017 14:55:33	81336-1.RAW	2:55:33 PM	742.84	2		724.7	2.642	1056.927	ng/L	
Hg2600-2	BC	SAM	1706939-02	400	7/17/2017 14:59:42	81337-1.RAW	2:59:42 PM	1669.77	2		1651.6	6.039	2415.701	ng/L	
Hg2600-2	BC	SAM	1706939-03	400	7/17/2017 15:03:50	81338-1.RAW	3:03:50 PM	1224.06	2		1205.9	4.406	1762.341	ng/L	
Hg2600-2	BC	SAM	1706939-05	400	7/17/2017 15:07:58	81339-1.RAW	3:07:58 PM	1646.57	2		1628.4	5.954	2381.692	ng/L	
Hg2600-2	BC	SAM	1706937-15RF1	1000	7/17/2017 15:12:06	81340-1.RAW	3:12:06 PM	4970.03	2		4951.9	18.142	18141.795	ng/L	
Hg2600-2	BC	SAM	1706938-01RF1	2500	7/17/2017 15:16:14	81341-1.RAW	3:16:14 PM	2899.89	2		2861.7	10.559	26396.328	ng/L	
Hg2600-2	BC	SAM	1706938-02RF1	2500	7/17/2017 15:20:22	81342-1.RAW	3:20:22 PM	3268.93	2		3250.8	11.911	29777.395	ng/L	
Hg2600-2	BC	SAM	1706938-03RF1	2500	7/17/2017 15:24:30	81343-1.RAW	3:24:30 PM	4860.19	2		4842.0	17.742	44356.184	ng/L	
Hg2600-2	BC	SAM	1706938-04RF1	400	7/17/2017 15:28:38	81344-1.RAW	3:28:38 PM	2227.78	2		2209.6	8.084	3233.680	ng/L	
Hg2600-2	BC	SAM	1706938-06RF1	2500	7/17/2017 15:32:46	81345-1.RAW	3:32:46 PM	6409.47	2		6391.2	23.420	58549.902	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV9	1	7/17/2017 15:36:54	81346-1.RAW	3:36:54 PM	1517.20			1499.0	5.494	5.494	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB9	1	7/17/2017 15:40:62	81347-1.RAW	3:40:62 PM	105.90			87.7	0.321	0.321	ng/L	
Hg2600-2	BC	SAM	F707330-DUP1	400	7/17/2017 15:44:70	81348-1.RAW	3:44:70 PM	1598.17	2		1580.0	5.777	2310.743	ng/L	
Hg2600-2	BC	SAM	F707330-MS1	400	7/17/2017 15:48:78	81349-1.RAW	3:48:78 PM	9158.45	2		9140.3	33.483	13393.254	ng/L	
Hg2600-2	BC	SAM	F707330-MSD1	400	7/17/2017 16:00:13	81350-1.RAW	4:00:13 PM	7003.70	2		6985.5	25.587	10234.636	ng/L	
Hg2600-2	BC	SAM	F707330-MS2	400	7/17/2017 16:04:22	81351-1.RAW	4:04:22 PM	7044.42	2		7026.2	25.736	10294.327	ng/L	
Hg2600-2	BC	SAM	F707330-MSD2	400	7/17/2017 16:08:30	81352-1.RAW	4:08:30 PM	5778.84	2		5760.7	21.098	8439.130	ng/L	
Hg2600-2	BC	SAM	F707330-DUP2	2500	7/17/2017 16:12:38	81353-1.RAW	4:12:38 PM	3026.39	2		3008.2	11.022	27555.295	ng/L	
Hg2600-2	BC	SAM	WS		7/17/2017 16:16:46	81354-1.RAW	4:16:46 PM	244.31	x		226.1	0.829	0.000	ng/L	
Hg2600-2	BC	SAM	F707330-MS3	400	7/17/2017 16:20:54	81355-1.RAW	4:20:54 PM	10301.03	2		10282.9	37.670	15068.146	ng/L	
Hg2600-2	BC	SAM	F707330-MSD3	400	7/17/2017 16:25:02	81356-1.RAW	4:25:02 PM	10165.55	2		10147.4	37.174	14869.548	ng/L	
Hg2600-2	BC	SAM	F707330-MS4	400	7/17/2017 16:29:10	81357-1.RAW	4:29:10 PM	9731.32	2		9713.1	35.583	14233.016	ng/L	
Hg2600-2	BC	SAM	F707330-MSD4	400	7/17/2017 16:33:18	81358-1.RAW	4:33:18 PM	9922.38	2		9904.2	36.263	14513.089	ng/L	
Hg2600-2	BC	CAL	SFQ-CCVA	1	7/17/2017 16:37:26	81359-1.RAW	4:37:26 PM	1569.57			1551.4	5.685	5.685	ng/L	
Hg2600-2	BC	CAL	SEQ-CCBA	1	7/17/2017 16:41:34	81360-1.RAW	4:41:34 PM	140.38			122.2	0.448	0.448	ng/L	

TotalMercury EPA1631
 Operati BC
 Worksh THg260
 Method #####
 R: 1
 Descrip THg26002-170717-1

BlankS: 18.173
 CalibFa 272.87
 R²: 0.9999

Calib Eqn: Conc = (Area-18.17
 Status: QC Warnings:14/QC
 Run Date: 7/17/2017
 Run Time: 16:15:39
 Blank SD: 2.434709458
 Blank RSD%: 13.39747457
 CF SD: 14.30995186
 CF RSD%: 5.24414249

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean				0.00	12.30					81239-1.RAW	7:41:32	3355.40	Clean	OK	1
clean				0.00	0.00					81240-1.RAW	7:44:23	0.79	Clean	OK	1
ws				18.17	0.04					81241-1.RAW	7:48:31	28.44	Sample	OK	1
ws				18.17	0.01					81242-1.RAW	7:52:40	19.65	Sample	OK	1
ws				18.17	0.01					81243-1.RAW	7:56:48	19.57	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.08					81244-1.RAW	8:00:57	20.93	Sample	OK	1
SEQ-IBL 2	A2		1	0.00	0.08					81245-1.RAW	8:05:05	16.33	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.06					81246-1.RAW	8:09:14	17.26	Sample	OK	1
SEQ-CAL1	A4		1	18.17	0.53			106.94		81247-1.RAW	8:13:22	164.07	Sample	OK	1
SEQ-CAL2	A5		1	18.17	1.04			103.86		81248-1.RAW	8:17:30	301.59	Sample	OK	1
SEQ-CAL3	A6		1	18.17	4.93			98.51		81249-1.RAW	8:21:39	1362.29	Sample	OK	1
SEQ-CAL4	A7		1	18.17	18.90			94.52		81250-1.RAW	8:25:47	5176.52	Sample	OK	1
SEQ-CAL5	A8		1	18.17	38.47			96.17		81251-1.RAW	8:29:56	10514.64	Sample	FB	1
SEQ-ICV1	A9		1	18.17	5.27			105.32		81252-1.RAW	8:34:04	1455.14	Sample	OK	1
ws				18.17	0.56					81253-1.RAW	8:46:45	172.09	Sample	OK	1
EFGS07217 TV:A10			2500	18.17	25309.41					81254-1.RAW	8:50:54	2780.69	Sample	OK	1
EFGS08672 TV:A11			2500	18.17	25428.46					81255-1.RAW	8:55:02	2793.69	Sample	OK	1
F707329-BLK1	A12		20	18.17	4.19					81256-1.RAW	8:59:11	75.39	Sample	OK	1
F707329-BLK2	A13		20	18.17	2.28					81257-1.RAW	9:03:19	49.24	Sample	OK	1
F707329-BLK3	A14		20	18.17	2.19					81258-1.RAW	9:07:27	48.12	Sample	OK	1
F707329-BS1	A15		20	18.17	97.15					81259-1.RAW	9:11:36	1343.60	Sample	OK	1
F707329-BSD1	A16		20	18.17	96.95					81260-1.RAW	9:15:44	1340.88	Sample	OK	1
1706935-01	A17		400	18.17	5563.14					81261-1.RAW	9:19:53	3813.28	Sample	OK	1
1706935-08	A18		400	18.17	8371.10					81262-1.RAW	9:24:01	5726.83	Sample	OK	1
1706935-09	A19		400	18.17	5389.17					81263-1.RAW	9:28:09	3694.59	Sample	OK	1
SEQ-CCV1	A20		1	18.17	5.23			104.63		81264-1.RAW	9:32:18	1445.78	Sample	OK	1
SEQ-CCB1	A21		1	18.17	0.19			0.00		81265-1.RAW	9:36:26	68.85	Sample	OK	1
WS				18.17	0.54					81266-1.RAW	9:50:40	166.03	Sample	OK	1
1706935-10	B1		400	18.17	2380.62					81267-1.RAW	9:54:49	1642.20	Sample	OK	1
1706935-11	B2		400	18.17	8760.45					81268-1.RAW	9:58:57	5994.44	Sample	OK	1
1706935-12	B3		400	18.17	7021.67					81269-1.RAW	10:03:05	4808.27	Sample	OK	1
1706935-13	B4		400	18.17	10280.11					81270-1.RAW	10:07:14	7031.13	Sample	FB	1
1706935-14	B5		400	18.17	10124.41					81271-1.RAW	10:11:22	6924.92	Sample	OK	1
1706935-15	B6		400	18.17	9350.41					81272-1.RAW	10:15:31	6396.91	Sample	OK	1
1706936-01	B7		400	18.17	5439.22					81273-1.RAW	10:19:39	3728.74	Sample	OK	1
1706936-02	B8		400	18.17	15739.85					81274-1.RAW	10:23:48	10755.70	Sample	OK	1
1706936-03	B9		400	18.17	17437.61					81275-1.RAW	10:27:56	11913.89	Sample	OK	1
1706936-04	B10		400	18.17	5588.37					81276-1.RAW	10:32:04	3830.49	Sample	OK	1
SEQ-CCV2	B11		1	18.17	5.50			109.92		81277-1.RAW	10:36:13	1517.85	Sample	OK	1
SEQ-CCB2	B12		1	18.17	0.27			0.00		81278-1.RAW	10:40:21	92.44	Sample	OK	1
1706936-05	B13		400	18.17	1948.49					81279-1.RAW	10:44:51	1347.41	Sample	OK	1
1706936-06	B14		400	18.17	16752.60					81280-1.RAW	10:48:59	11446.59	Sample	OK	1
1706937-01	B15		400	18.17	15183.34					81281-1.RAW	10:53:08	10376.06	Sample	OK	1
1706937-03	B16		400	18.17	8836.40					81282-1.RAW	10:57:16	6046.25	Sample	OK	1

1706937-04	B17	400	18.17	25732.04		81283-1.RAW	11:01:25	17572.25	Sample	OK	1
1706937-05	B18	400	18.17	6938.60		81284-1.RAW	11:05:33	4750.23	Sample	OK	1
1706937-06	B19	400	18.17	10205.78		81285-1.RAW	11:09:41	6980.43	Sample	OK	1
1706936-03RE1	B20	1000	18.17	21901.28		81286-1.RAW	11:13:50	5994.48	Sample	FB	1
1706936-04RE1	B21	400	18.17	5649.62		81287-1.RAW	11:17:58	3872.28	Sample	OK	1
F707329-DUP1	C1	400	18.17	9734.32		81288-1.RAW	11:22:07	6658.80	Sample	OK	1
SEQ-CCV3	C2	1	18.17	5.64	112.87	81289-1.RAW	11:26:15	1558.12	Sample	OK	1
SEQ-CCB3	C3	1	18.17	0.30	0.00	81290-1.RAW	11:30:24	99.33	Sample	OK	1
F707329-MS1	C4	400	18.17	10235.19	788897.71	81291-1.RAW	11:34:32	7000.49	Sample	OK	1
F707329-MSD1	C5	400	18.17	7809.13		81292-1.RAW	11:38:41	5345.47	Sample	OK	1
F707329-MS2	C6	400	18.17	10310.53	132.00	81293-1.RAW	11:42:49	7051.89	Sample	OK	1
F707329-MSD2	C7	400	18.17	10151.87		81294-1.RAW	11:46:57	6943.65	Sample	OK	1
1706936-06RE1	C8	1000	18.17	18595.94		81295-1.RAW	11:59:58	5092.54	Sample	OK	1
1706937-01RE1	C9	1000	18.17	15416.77		81296-1.RAW	12:04:06	4225.02	Sample	OK	1
1706937-04RE1	C10	1000	18.17	25370.44		81297-1.RAW	12:08:15	6941.13	Sample	OK	1
1706937-05RE1	C11	400	18.17	6705.36		81298-1.RAW	12:12:23	4592.48	Sample	OK	1
F707329-DUP2	C12	1000	18.17	17283.87		81299-1.RAW	12:16:32	4734.51	Sample	OK	1
F707330-BLK1	C13	20	18.17	8.64		81300-1.RAW	12:20:40	136.11	Sample	OK	1
SEQ-CCV4	C14	1	18.17	5.39	107.80	81301-1.RAW	12:24:49	1488.93	Sample	OK	1
SEQ-CCB4	C15	1	18.17	0.26	0.00	81302-1.RAW	12:28:57	88.88	Sample	OK	1
F707330-BLK2	C16	20	18.17	4.19		81303-1.RAW	12:33:05	75.33	Sample	OK	1
F707330-BLK3	C17	20	18.17	3.22		81304-1.RAW	12:37:14	62.14	Sample	OK	1
F707330-BS1	C18	20	18.17	94.69		81305-1.RAW	12:41:22	1310.13	Sample	OK	1
F707330-BSD1	C19	20	18.17	96.57		81306-1.RAW	12:45:31	1335.78	Sample	OK	1
ws			18.17	0.51		81307-1.RAW	12:56:10	156.74	Sample	OK	1
1706937-02	C20	400	18.17	6913.86		81308-1.RAW	13:00:18	4734.72	Sample	OK	1
1706937-07	C21	400	18.17	9244.07		81309-1.RAW	13:04:26	6324.36	Sample	OK	1
1706937-08	A1	400	18.17	9524.63		81310-1.RAW	13:08:35	6515.76	Sample	OK	1
1706937-09	A2	400	18.17	4526.75		81311-1.RAW	13:12:43	3106.27	Sample	OK	1
1706937-10	A3	400	18.17	3959.79		81312-1.RAW	13:16:52	2719.49	Sample	OK	1
1706937-11	A4	400	18.17	5366.06		81313-1.RAW	13:21:00	3878.83	Sample	OK	1
SEQ-CCV5	A5	1	18.17	5.38	107.54	81314-1.RAW	13:25:08	1485.47	Sample	OK	1
SEQ-CCB5	A6	1	18.17	0.25	0.00	81315-1.RAW	13:29:17	85.21	Sample	OK	1
1706937-12	A7	400	18.17	12384.51		81316-1.RAW	13:33:25	8466.75	Sample	OK	1
1706937-13	A8	400	18.17	13025.68		81317-1.RAW	13:37:34	8904.13	Sample	OK	1
1706937-14	A9	400	18.17	15855.95		81318-1.RAW	13:41:42	10834.90	Sample	FB	1
1706937-15	A10	400	18.17	17444.86		81319-1.RAW	13:45:50	11918.84	Sample	FB	1
1706938-01	A11	400	18.17	25071.31		81320-1.RAW	13:49:59	17121.50	Sample	FB	1
1706938-02	A12	400	18.17	27600.71		81321-1.RAW	13:54:07	18847.03	Sample	OK	1
1706938-03	A13	400	18.17	42627.14		81322-1.RAW	13:58:16	29097.87	Sample	FB	1
1706938-04	A14	400	18.17	3591.99		81323-1.RAW	14:02:24	2468.59	Sample	OK	1
1706938-05	A15	400	18.17	6331.40		81324-1.RAW	14:06:33	4337.37	Sample	OK	1
1706938-06	A16	400	18.17	58738.12		81325-1.RAW	14:10:42	40088.58	Sample	FB	1
SEQ-CCV6	A17	1	18.17	6.63	132.57	81326-1.RAW	14:14:50	1826.87	Sample	OK	1
SEQ-CCB6	A18	1	18.17	0.66	0.00	81327-1.RAW	14:18:59	197.42	Sample	OK	1
ws			18.17	0.52		81328-1.RAW	14:23:42	160.30	Sample	OK	1
ws			18.17	0.33		81329-1.RAW	14:27:50	108.70	Sample	OK	1
clean			0.00	0.13		81330-1.RAW	14:30:41	35.50	Clean	OK	1
ws			18.17	0.32		81331-1.RAW	14:34:50	104.16	Sample	OK	1

SEQ-CCV7	C1	1	18.17	5.20	104.03	81332-1.RAW	14:38:59	1437.53	Sample	OK	1
SEQ-CCB7	C2	1	18.17	0.22	0.00	81333-1.RAW	14:43:08	79.53	Sample	OK	1
SEQ-CCV8	C3	1	18.17	5.14	102.71	81334-1.RAW	14:47:16	1419.58	Sample	OK	1
SEQ-CCB8	C4	1	18.17	0.20	0.00	81335-1.RAW	14:51:25	72.31	Sample	OK	1
1706939-01	A19	400	18.17	1062.26		81336-1.RAW	14:55:33	742.84	Sample	OK	1
1706939-02	A20	400	18.17	2421.02		81337-1.RAW	14:59:42	1669.77	Sample	OK	1
1706939-03	A21	400	18.17	1767.68		81338-1.RAW	15:03:50	1224.06	Sample	OK	1
1706939-05	B1	400	18.17	2387.03		81339-1.RAW	15:07:58	1646.57	Sample	OK	1
1706937-15RE1	B2	1000	18.17	18146.99		81340-1.RAW	15:18:49	4970.03	Sample	OK	1
1706938-01RE1	B3	2500	18.17	26401.49		81341-1.RAW	15:22:57	2899.89	Sample	OK	1
1706938-02RE1	B4	2500	18.17	29782.44		81342-1.RAW	15:27:06	3268.93	Sample	OK	1
1706938-03RE1	B5	2500	18.17	44361.15		81343-1.RAW	15:31:14	4860.19	Sample	OK	1
1706938-04RE1	B6	400	18.17	3239.00		81344-1.RAW	15:35:23	2227.78	Sample	OK	1
1706938-06RE1	B7	2500	18.17	58554.77		81345-1.RAW	15:39:31	6409.42	Sample	OK	1
SEQ-CCV9	B8	1	18.17	5.49	109.87	81346-1.RAW	15:43:40	1517.20	Sample	OK	1
SEQ-CCB9	B9	1	18.17	0.32	0.00	81347-1.RAW	15:47:48	105.90	Sample	OK	1
F707330-DUP1	B10	400	18.17	2316.07		81348-1.RAW	15:51:56	1598.17	Sample	OK	1
F707330-MS1	B11	400	18.17	13398.49	578.25	81349-1.RAW	15:56:05	9158.45	Sample	OK	1
F707330-MSD1	B12	400	18.17	10239.89		81350-1.RAW	16:00:13	7003.70	Sample	OK	1
F707330-MS2	B13	400	18.17	10299.59	100.56	81351-1.RAW	16:04:22	7044.42	Sample	OK	1
F707330-MSD2	B14	400	18.17	8444.41		81352-1.RAW	16:08:30	5778.84	Sample	OK	1
F707330-DUP2	B15	2500	18.17	27560.42		81353-1.RAW	16:12:38	3026.39	Sample	OK	1
WS			18.17	0.83		81354-1.RAW	16:19:48	244.31	Sample	OK	1
F707330-MS3	B16	400	18.17	15073.37	393691.03	81355-1.RAW	16:23:56	10301.03	Sample	FB	1
F707330-MSD3	B17	400	18.17	14874.76		81356-1.RAW	16:28:04	10165.55	Sample	OK	1
F707330-MS4	B18	400	18.17	14238.24	95.70	81357-1.RAW	16:32:13	9731.32	Sample	OK	1
F707330-MSD4	B19	400	18.17	14518.31		81358-1.RAW	16:36:21	9922.38	Sample	OK	1
SEQ-CCVA	B20	1	18.17	5.69		81359-1.RAW	16:40:30	1569.57	Sample	OK	1
SEQ-CCBA	B21	1	18.17	0.45		81360-1.RAW	16:44:38	140.38	Sample	OK	1

ANALYSIS SEQUENCE

7G18008



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G18008-IBL1	QC	1			
7G18008-IBL2	QC	2			
7G18008-IBL3	QC	3			
7G18008-CAL1	QC	4	1702602		
7G18008-CAL2	QC	5	1702603		
7G18008-CAL3	QC	6	1702604		
7G18008-CAL4	QC	7	1702605		
7G18008-CAL5	QC	8	1702606		
7G18008-ICV1	QC	9	1703679		
F707329-BLK1	QC	10			
F707329-BLK2	QC	11			
F707329-BLK3	QC	12			
F707329-BS1	QC	13			
F707329-BSD1	QC	14			
1706935-01	Hg-CVAFS-T-7030	15			
1706935-08	Hg-CVAFS-T-7030	16			
1706935-09	Hg-CVAFS-T-7030	17			
7G18008-CCV1	QC	18	1703679		
7G18008-CCB1	QC	19			
1706935-10	Hg-CVAFS-T-7030	20			
1706935-11	Hg-CVAFS-T-7030	21			
1706935-12	Hg-CVAFS-T-7030	22			
1706935-13	Hg-CVAFS-T-7030	23			
1706935-14	Hg-CVAFS-T-7030	24			
1706935-15	Hg-CVAFS-T-7030	25			
1706936-01	Hg-CVAFS-T-7030	26			
1706936-02	Hg-CVAFS-T-7030	27			
1706936-03	Hg-CVAFS-T-7030	28			
1706936-04	Hg-CVAFS-T-7030	29			
7G18008-CCV2	QC	30	1703679		
7G18008-CCB2	QC	31			
1706936-05	Hg-CVAFS-T-7030	32			
1706936-06	Hg-CVAFS-T-7030	33			
1706937-01	Hg-CVAFS-T-7030	34			
1706937-03	Hg-CVAFS-T-7030	35			

Duc Date: 7/31/2017

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ANALYSIS SEQUENCE

7G18008



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706937-04	Hg-CVAFS-T-7030	36			
1706937-05	Hg-CVAFS-T-7030	37			
1706937-06	Hg-CVAFS-T-7030	38			
1706936-03RE1	Hg-CVAFS-T-7030	39			Added 7/17/2017 by BC
1706936-04RE1	Hg-CVAFS-T-7030	40			Added 7/17/2017 by BC
F707329-DUP1	QC	41			
7G18008-CCV3	QC	42	1703679		
7G18008-CCB3	QC	43			
F707329-MS1	QC	44			
F707329-MSD1	QC	45			
F707329-MS2	QC	46			
F707329-MSD2	QC	47			
1706936-06RE1	Hg-CVAFS-T-7030	48			Added 7/17/2017 by BC
1706937-01RE1	Hg-CVAFS-T-7030	49			Added 7/17/2017 by BC
1706937-04RE1	Hg-CVAFS-T-7030	50			Added 7/17/2017 by BC
1706937-05RE1	Hg-CVAFS-T-7030	51			Added 7/17/2017 by BC
F707329-DUP2	QC	52			
F707330-BLK1	QC	53			
7G18008-CCV4	QC	54	1703679		
7G18008-CCB4	QC	55			
F707330-BLK2	QC	56			
F707330-BLK3	QC	57			
F707330-BS1	QC	58			
F707330-BSD1	QC	59			
1706937-02	Hg-CVAFS-T-7030	60			
1706937-07	Hg-CVAFS-T-7030	61			
1706937-08	Hg-CVAFS-T-7030	62			
1706937-09	Hg-CVAFS-T-7030	63			
1706937-10	Hg-CVAFS-T-7030	64			
1706937-11	Hg-CVAFS-T-7030	65			
7G18008-CCV5	QC	66	1703679		
7G18008-CCB5	QC	67			
1706937-12	Hg-CVAFS-T-7030	68			
1706937-13	Hg-CVAFS-T-7030	69			
1706937-14	Hg-CVAFS-T-7030	70			

Due Date: 7/31/2017

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ANALYSIS SEQUENCE

7G18008



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706937-15	Hg-CVAFS-T-7030	71			
1706938-01	Hg-CVAFS-T-7030	72			
1706938-02	Hg-CVAFS-T-7030	73			
1706938-03	Hg-CVAFS-T-7030	74			
1706938-04	Hg-CVAFS-T-7030	75			
1706938-05	Hg-CVAFS-T-7030	76			
1706938-06	Hg-CVAFS-T-7030	77			
7G18008-CCV6	QC	78	1703679		
7G18008-CCB6	QC	79			
7G18008-CCV7	QC	80	1703679		
7G18008-CCB7	QC	81			
7G18008-CCV8	QC	82	1703679		
7G18008-CCB8	QC	83			
1706939-01	Hg-CVAFS-T-7030	84			
1706939-02	Hg-CVAFS-T-7030	85			
1706939-03	Hg-CVAFS-T-7030	86			
1706939-05	Hg-CVAFS-T-7030	87			
1706937-15RE1	Hg-CVAFS-T-7030	88			Added 7/17/2017 by BC
1706938-01RE1	Hg-CVAFS-T-7030	89			Added 7/17/2017 by BC
1706938-02RE1	Hg-CVAFS-T-7030	90			Added 7/17/2017 by BC
1706938-03RE1	Hg-CVAFS-T-7030	91			Added 7/17/2017 by BC
1706938-04RE1	Hg-CVAFS-T-7030	92			Added 7/17/2017 by BC
1706938-06RE1	Hg-CVAFS-T-7030	93			Added 7/17/2017 by BC
7G18008-CCV9	QC	94	1703679		
7G18008-CCB9	QC	95			
F707330-DUP1	QC	96			
F707330-MS1	QC	97			
F707330-MSD1	QC	98			
F707330-MS2	QC	99			
F707330-MSD2	QC	100			
F707330-DUP2	QC	101			
F707330-MS3	QC	102			
F707330-MSD3	QC	103			
F707330-MS4	QC	104			
F707330-MSD4	QC	105			

Due Date: 7/31/2017

ANALYSIS SEQUENCE

7G18008



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 7/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G18008-CCVA	QC	106	1703679		
7G18008-CCBA	QC	107			

Beating 7/18/17
Samples Loaded By Date

Beating 7/18/17
Data Processed By Date

Failing Data Report - 7G18008

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1706936-03	Hg-CVAFS-T-7030	4910	56.3				ng/g						FAIL-OVER	PASS	E
1706936-06	Hg-CVAFS-T-7030	6490	77.5				ng/g						FAIL-OVER	PASS	E
1706937-04	Hg-CVAFS-T-7030	4250	33.0				ng/g						FAIL-OVER	PASS	E
1706937-15	Hg-CVAFS-T-7030	3590	41.2				ng/g						FAIL-OVER	PASS	E
1706938-01	Hg-CVAFS-T-7030	5450	43.5				ng/g						FAIL-OVER	PASS	E
1706938-02	Hg-CVAFS-T-7030	5570	40.4				ng/g						FAIL-OVER	PASS	E
1706938-03	Hg-CVAFS-T-7030	8130	38.2				ng/g						FAIL-OVER	PASS	E
1706938-06	Hg-CVAFS-T-7030	6740	22.9				ng/g						FAIL-OVER	PASS	E
F707329-DUP1	Hg-CVAFS-T-7030	4115	84.6	6169	6169		ug/g				39.9	24.00	PASS-OVER	FAIL-DUP	QR-07
F707329-MSD2	Hg-CVAFS-T-7030	6096	120	4259	2683	3009.0	ng/g	113	71.00	125.00	39.3	24.00	PASS-OVER	FAIL-MSD (RPD)	QR-08
7G18008-CCV6	Hg-CVAFS-T-7030	6.628	1.000			5.0000	ng/L	133	77.00	123.00			PASS-OVER	FAIL-CCV	FE-447/95.5
F707330-DUP1	Hg-CVAFS-T-7030	778.0	67.3	6016	6016		ng/g				154	24.00	PASS-OVER	FAIL-DUP	QR-07

Analyst Reviewed By *[Signature]* Date 7/18/17

Peer Reviewed By *[Signature]* Date 7/18/17

PREPARATION BENCH SHEET

F707330

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707330-BLK1	Blank	0.25	20					
F707330-BLK2	Blank	0.25	20					
F707330-BLK3	Blank	0.25	20					
F707330-BS1	LCS	0.25	20	1702555	20			
F707330-BSD1	LCS Dup	0.25	20	1702555	20			
F707330-DUP1	Duplicate [1706938-02RE1]	0.0594	20					
F707330-DUP2	AD [1706938-02RE1]	0.099	20					
F707330-MS1	Matrix Spike [1706937-02]	0.0562	20	1700685	100			
F707330-MS2	Matrix Spike [1706938-05]	0.0216	20	1700685	100			
F707330-MS3	AS [1706937-02]	0.00028875	0.125	1702556	100			[Spk] 0.0462g->20mL; 40mL->40mL; Spiked 0.125mL
F707330-MS4	AS [1706938-05]	0.0001575	0.125	1702556	100			[Spk] 0.0252g->20mL; 40mL->40mL; Spiked 0.125mL
F707330-MSD1	Matrix Spike Dup [1706937-02]	0.0273	20	1700685	100			
F707330-MSD2	Matrix Spike Dup [1706938-05]	0.0126	20	1700685	100			
F707330-MSD3	ASD [1706937-02]	0.00028875	0.125	1702556	100			[Spk] 0.0462g->20mL; 40mL->40mL; Spiked 0.125mL
F707330-MSD4	ASD [1706938-05]	0.0001575	0.125	1702556	100			[Spk] 0.0252g->20mL; 40mL->40mL; Spiked 0.125mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1702556	THg 10ng/mL Calibration Standard	26-Jul-17 00:00	1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703702	THg Dilute 1% BrCl	21-Dec-17 00:00
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00
			1704212	5% BrCl	18-Dec-17 00:00

PREPARATION BENCH SHEET

F707330

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs	Raw Data	Sample Comments	Analysis Comments
1706937-02	MMSW-C_17MN008_061917_NSS_02_BL	0.0462	20	QC	-	-	MS/MSD	
1706937-07	MMSW-C_17MN016_062017_NSS_07_BL	0.0842	20	-	-	-		
1706937-08	MMSW-C_17MN015_062017_NSS_08_BL	0.0826	20	-	-	-		
1706937-09	MMSW-C_17MN010_062017_NSS_09_BL	0.0377	20	-	-	-		
1706937-10	MMSW-C_17MN021_062317_NSS_10_BL	0.037	20	-	-	-		
1706937-11	MMSW-C_17MN027_062317_NSS_11_BL	0.0566	20	-	-	-		
1706937-12	MMSW-C_17MN026_062317_NSS_12_BL	0.0494	20	-	-	-		
1706937-13	MMSW-C_17MN027_062317_NSS_13_BL	0.0794	20	-	-	-		
1706937-14	MMSW-C_17MN027_062517_NSS_14_BL	0.0719	20	-	-	-		
1706937-15	MMSW-C_17MN027_062517_NSS_15_BL	0.0971	20	-	-	-		
1706937-15RE1	MMSW-C_17MN027_062517_NSS_15_BL	0.0971	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706938-01	MMSW-C_17MN009_061917_RWB_01_BL	0.092	20	-	-	-		
1706938-01RE1	MMSW-C_17MN009_061917_RWB_01_BL	0.092	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706938-02	MMSW-C_17MN022_062317_RWB_02_BL	0.099	20	-	-	-		
1706938-02RE1	MMSW-C_17MN022_062317_RWB_02_BL	0.099	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706938-03	MMSW-C_17MN020_062317_RWB_03_BL	0.1048	20	-	-	-		
1706938-03RE1	MMSW-C_17MN020_062317_RWB_03_BL	0.1048	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706938-04	MMSW-C_17MN020_062317_RWB_04_BL	0.063	20	-	-	-		
1706938-04RE1	MMSW-C_17MN020_062317_RWB_04_BL	0.063	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707330

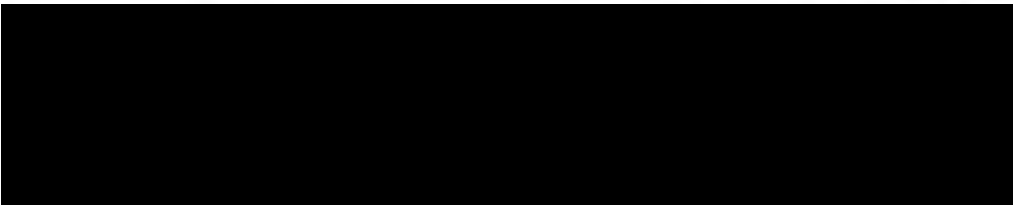
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

1706938-05	MMSW-C_17MN036_062517_RWB_05_BL	0.0252	20	QC	-	-	MS/MSD	
1706938-06	MMSW-C_17MN036_062617_RWB_06_BL	0.1743	20	-	-	-		
1706938-06RE1	MMSW-C_17MN036_062617_RWB_06_BL	0.1743	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706939-01	ADD-01_17MN001_062117_NSS_01_BL	0.0416	20	-	-	-		
1706939-02	ADD-01_17MN001_062117_NSS_02_BL	0.093	20	-	-	-		
1706939-03	ADD-01_17MN001_062117_NSS_03_BL	0.1031	20	-	-	-		
1706939-05	ADD-01_17MN006_062117_NSS_05_BL	0.1025	20	-	-	-		



PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707329-BLK1	Blank	0.25	20					
F707329-BLK2	Blank	0.25	20					
F707329-BLK3	Blank	0.25	20					
F707329-BS1	LCS	0.25	20	1702555	20			
F707329-BSD1	LCS Dup	0.25	20	1702555	20			
F707329-DUP1	Duplicate [1706936-03RE1]	0.0473	20					
F707329-DUP2	AD [1706936-03RE1]	0.071	20					
F707329-MS1	Matrix Spike [1706935-01]	0.0454	20	1700685	100			
F707329-MS2	Matrix Spike [1706936-04RE1]	0.0484	20	1700685	100			
F707329-MSD1	Matrix Spike Dup [1706935-01]	0.0152	20	1700685	100			
F707329-MSD2	Matrix Spike Dup [1706936-04RE1]	0.0333	20	1700685	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1.000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
			1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703702	THg Dilute 1% BrCl	21-Dec-17 00:00
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00
			1704212	5% BrCl	18-Dec-17 00:00

PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706935-01	MMSE-1_17MN003_062117_NSS_01_BL	0.0474	20	QC	-	-	MS/MSD	
1706935-08	MMSE-1_17MN002_062117_NSS_08_BL	0.1063	20	-	-	-		
1706935-09	MMSE-1_17MN002_062117_NSS_09_BL	0.0591	20	-	-	-		
1706935-10	MMSE-1_17MN010_062117_NSS_10_BL	0.037	20	-	-	-		
1706935-11	MMSE-1_17MN011_062217_NSS_11_BL	0.0902	20	-	-	-		
1706935-12	MMSE-1_17MN011_062217_NSS_12_BL	0.0775	20	-	-	-		
1706935-13	MMSE-1_17MN018_062217_NSS_13_BL	0.0769	20	-	-	-		
1706935-14	MMSE-1_17MN011_062217_NSS_14_BL	0.067	20	-	-	-		
1706935-15	MMSE-1_17MN018_062217_NSS_15_BL	0.0799	20	-	-	-		
1706936-01	MMSE-1_17MN004_062117_RWB_01_BL	0.0997	20	-	-	-		
1706936-02	MMSE-1_17MN044_062717_RWB_02_BL	0.0503	20	-	-	-		
1706936-03	MMSE-1_17MN047_062717_RWB_03_BL	0.071	20	-	-	-		
1706936-03RE1	MMSE-1_17MN047_062717_RWB_03_BL	0.071	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706936-04	MMSE-1_17MN047_062717_RWB_04_BL	0.0421	20	QC	-	-	MS/MSD	
1706936-04RE1	MMSE-1_17MN047_062717_RWB_04_BL	0.0421	20	QC	-	-	MS/MSD Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706936-05	MMSE-1_17MN047_062717_RWB_05_BL	0.0339	20	-	-	-		
1706936-06	MMSE-1_17MN064_062817_RWB_06_BL	0.0516	20	-	-	-		
1706936-06RE1	MMSE-1_17MN064_062817_RWB_06_BL	0.0516	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706937-01	MMSW-C_17MN006_061917_NSS_01_BL	0.0891	20	-	-	-		

PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

1706937-01RE1	MMSW-C_17MN006_061917_NSS_01_BL	0.0891	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706937-03	MMSW-C_17MN006_061917_NSS_03_BL	0.0421	20	-	-	-		
1706937-04	MMSW-C_17MN009_061917_NSS_04_BL	0.1211	20	-	-	-		
1706937-04RE1	MMSW-C_17MN009_061917_NSS_04_BL	0.1211	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706937-05	MMSW-C_17MN009_061917_NSS_05_BL	0.0952	20	-	-	-		
1706937-05RE1	MMSW-C_17MN009_061917_NSS_05_BL	0.0952	20	-	-	-	Added 7/17/2017 by BC	Added 7/17/2017 by BC
1706937-06	MMSW-C_17MN015_062017_NSS_06_BL	0.0947	20	-	-	-		

PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707329-BLK1	Blank	0.25	20					20x
F707329-BLK2	Blank	0.25	20					20x
F707329-BLK3	Blank	0.25	20					20x
F707329-BS1	LCS	0.25	20	1702555	20			20x
F707329-BSD1	LCS Dup	0.25	20	1702555	20			20x
F707329-DUP1	Duplicate [1706936-03]	0.0473	20					400x
F707329-MS1	Matrix Spike [1706935-01]	0.0454 0.454	20	1700685	100			400x
F707329-MS2	Matrix Spike [1706936-04]	0.0484	20	1700685	100			400x
F707329-MSD1	Matrix Spike Dup [1706935-01]	0.0152	20	1700685	100			400x
F707329-MSD2	Matrix Spike Dup [1706936-04]	0.0333	20	1700685	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1.000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1704177	70/30 Digestion Acid	07-Jan-18 00:00
			1704212	5% BrCl	18-Dec-17 00:00

DUP 2 1706936-03 RE1 1000x

1703182
1703702
1703378
1704095

PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs	Raw Data	Sample Comments	Analysis Comments
1706935-01	MMSE-1_17MN003_062117_NSS_01_BL	0.0474	20	QC	-	-	MS/MSD 400x	
1706935-08	MMSE-1_17MN002_062117_NSS_08_BL	0.1063	20	-	-	-	400x	
1706935-09	MMSE-1_17MN002_062117_NSS_09_BL	0.0591	20	-	-	-	400x	
1706935-10	MMSE-1_17MN010_062117_NSS_10_BL	0.037	20	-	-	-	400x	
1706935-11	MMSE-1_17MN011_062217_NSS_11_BL	0.0902	20	-	-	-	400x	
1706935-12	MMSE-1_17MN011_062217_NSS_12_BL	0.0775	20	-	-	-	400x	
1706935-13	MMSE-1_17MN018_062217_NSS_13_BL	0.0769	20	-	-	-	400x	
1706935-14	MMSE-1_17MN011_062217_NSS_14_BL	0.067	20	-	-	-	400x	
1706935-15	MMSE-1_17MN018_062217_NSS_15_BL	0.0799	20	-	-	-	400x	
1706936-01	MMSE-1_17MN004_062117_RWB_01_BL	0.0997	20	-	-	-	400x	
1706936-02	MMSE-1_17MN044_062717_RWB_02_BL	0.0503	20	-	-	-	400x	
1706936-03	MMSE-1_17MN047_062717_RWB_03_BL	0.071	20	-	-	-	400x → 1000x	
1706936-04	MMSE-1_17MN047_062717_RWB_04_BL	0.0421	20	QC	-	-	MS/MSD 400x → 400x	
1706936-05	MMSE-1_17MN047_062717_RWB_05_BL	0.0339	20	-	-	-	400x	
1706936-06	MMSE-1_17MN064_062817_RWB_06_BL	0.0516	20	-	-	-	400x → 1000x	
1706937-01	MMSW-C_17MN006_061917_NSS_01_BL	0.0891	20	-	-	-	400x → 1000x	
1706937-03	MMSW-C_17MN006_061917_NSS_03_BL	0.0421	20	-	-	-	400x	
1706937-04	MMSW-C_17MN009_061917_NSS_04_BL	0.1211	20	-	-	-	400x → 1000x	
1706937-05	MMSW-C_17MN009_061917_NSS_05_BL	0.0952	20	-	-	-	400x 400x	

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707329

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

1706937-06	MMSW-C_17MN015_062017_NSS_06_BL	0.0947	20	-	-	-	400X	
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Technician: OLL Batch#: F707329 Date: 7/12/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____
 Balance#: 19 Calibrated? Yes No Therm.#: 13698 Vial Type: Glass Teflon
 Calibrated? Yes No
 *Time in: 1930 Actual Temp. (raw): 77.0 °C w/ CF: 77.0 °C
 Time out: 2130 Actual Temp. (raw): 79.0 °C w/ CF: 78.7 °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1704212) Spike vol.: 100 µL (LIMS ID: 1700685)
 Spike Witness: DM 7/12/17 (Initial and date)

HCl LIMS ID: N/A Pipette SN#: 0107852 Calibration Date: 7/7/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1704177 Dispenser #: 02R27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 00067065 Boiling Chip lot # 1702551 *Hotblock Position: A7B7
7/13/17

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input checked="" type="checkbox"/> N/A
1	F707329-BLK1	0.2797	23	1706936-04	0.0421	
2	F707329-BLK2	0.2678	24	1706936-05	0.0339	
3	F707329-BLK3	0.2558	25	1706936-06	0.0516	
4	F707329-BS1	0.2956	26	1706937-01	0.0891	Comments
5	F707329-BSD1	0.2953	27	1706937-03	0.0421	MS1/MSD1
6	F707329-Dup1	0.0473	28	1706937-04	0.1211	Source:
7	F707329-MS1	0.0454	29	1706937-05	0.0952	1706935-01
8	F707329-MSD1	0.0152	30	1706937-06	0.0950	MS2/MSD2
9	F707329-MS2	0.0484	31			SRC: 1706936-04
10	F707329-MSD2	0.0333	32			
11	1706935-01	0.0474	33			Dup1 SRC: 1706936-03
12	1706935-08	0.1063	34			
13	1706935-09	0.0591	35			BS/BSD: 20 µl of 100 mg/mL 1702555
14	1706935-10	0.0370	36			
15	1706935-11	0.0902	37			
16	1706935-12	0.0775	38			
17	1706935-13	0.0769	39			
18	1706935-14	0.0670	40			
19	1706935-15	0.0799	41			
20	1706936-01	0.0997	42			70:30 Reagent added by AMB 7/12/17
21	1706936-02	0.0503	43			5% BrCl added by AMB 7/13/17
22	1706936-03	0.0710	44			

PREPARATION BENCH SHEET

F707330

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707330-BLK1	Blank	0.25	20					20x
F707330-BLK2	Blank	0.25	20					20x
F707330-BLK3	Blank	0.25	20					25x
F707330-BS1	LCS	0.25	20	1702555	20			25x
F707330-BSD1	LCS Dup	0.25	20	1702555	20			20x
F707330-DUP1	Duplicate [1706938-02] RE1	0.0594	20					2500x
F707330-MS1	Matrix Spike [1706937-02]	0.0562	20	1700685	100			400x
F707330-MS2	Matrix Spike [1706938-05]	0.0216	20	1700685	100			400x
F707330-MSD1	Matrix Spike Dup [1706937-02]	0.0273	20	1700685	100			400x
F707330-MSD2	Matrix Spike Dup [1706938-05]	0.0126	20	1700685	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1704177	70/30 Digestion Acid	07-Jan-18 00:00
			1704212	5% BrCl	18-Dec-17 00:00

DUP 2 (AD) 1706938-02 RE1 2500x

MS 2 1706937-02 AS/ASD 100 1702556 400x 1703182
 MSD 3 1706937-02 AS/ASD 100 1702556 400x 1703782
 MS 34 1706938-05 AS/ASD 100 1702556 400x 1703376
 MSD 34 1706938-05 AS/ASD 100 1702556 400x 1704095

PREPARATION BENCH SHEET

F707330

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706937-02	MMSW-C_17MN008_061917_NSS_02_BL	0.0462	20	QC	-	-	MS/MSD 400x	
1706937-07	MMSW-C_17MN016_062017_NSS_07_BL	0.0842	20	-	-	-	400x	
1706937-08	MMSW-C_17MN015_062017_NSS_08_BL	0.0826	20	-	-	-	400x	
1706937-09	MMSW-C_17MN010_062017_NSS_09_BL	0.0377	20	-	-	-	400x	
1706937-10	MMSW-C_17MN021_062317_NSS_10_BL	0.037	20	-	-	-	400x	
1706937-11	MMSW-C_17MN027_062317_NSS_11_BL	0.0566	20	-	-	-	400x	
1706937-12	MMSW-C_17MN026_062317_NSS_12_BL	0.0494	20	-	-	-	400x	
1706937-13	MMSW-C_17MN027_062317_NSS_13_BL	0.0794	20	-	-	-	400x	
1706937-14	MMSW-C_17MN027_062517_NSS_14_BL	0.0719	20	-	-	-	400x	
1706937-15	MMSW-C_17MN027_062517_NSS_15_BL	0.0971	20	-	-	-	400x → 100x	
1706938-01	MMSW-C_17MN009_061917_RWB_01_BL	0.092	20	-	-	-	400x → 2500x	
1706938-02	MMSW-C_17MN022_062317_RWB_02_BL	0.099	20	-	-	-	400x → 2500x	
1706938-03	MMSW-C_17MN020_062317_RWB_03_BL	0.1048	20	-	-	-	400x → 2500x	
1706938-04	MMSW-C_17MN020_062317_RWB_04_BL	0.063	20	-	-	-	400x → 400x	
1706938-05	MMSW-C_17MN036_062517_RWB_05_BL	0.0252	20	QC	-	-	MS/MSD 400x	
1706938-06	MMSW-C_17MN036_062617_RWB_06_BL	0.1743	20	-	-	-	400x → 2500x	
1706939-01	ADD-01_17MN001_062117_NSS_01_BL	0.0416	20	-	-	-	400x	
1706939-02	ADD-01_17MN001_062117_NSS_02_RL	0.093	20	-	-	-	400x	
1706939-03	ADD-01_17MN001_062117_NSS_03_BL	0.1031	20	-	-	-	400x	

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707330

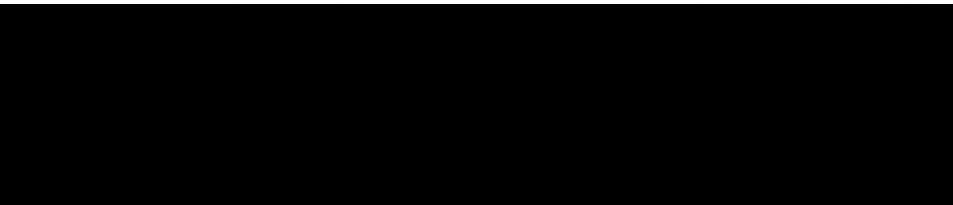
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

1706939-05	ADD-01_17MN006_062117_NSS_05_BL	0.1025	20	-	-	-	4007	
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Technician: CLL Batch#: F707350 Date: 7/12/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____
 Balance#: 19 Calibrated? Yes No Therm.#: 13698 Vial Type: Glass Teflon
 Calibrated? Yes No

*Time in: 1930 Actual Temp. (raw): 77.0 °C w/ CF: 77.0 °C

Time out: 2130 Actual Temp. (raw): 79.0 °C w/ CF: 78.7 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1704212) Spike vol.: 100 µL (LIMS ID: 1700685)
 MS/MSD

Spike Witness: om 7/12/17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: 0407852 Calibration Date: 7/7/17

HNO₃ LIMS ID: N/A

Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1704177

Dispenser #: 02K27494 Calibrated? Yes No

Other Acid LIMS ID: N/A

Dispenser #: 15406623 Yes AMB 7-12-17

Glass Vial # 0006824

Boiling Chip lot # 1702551 *Hotblock Position: AT BOB7
AMB 7-12-17

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input checked="" type="checkbox"/> N/A
1	F707330-BLK1	0.2969	23	1706938-03	0.1048	
2	F707330-BLK2	0.2881	24	1706938-04	0.0630	
3	F707330-BLK3	0.2642	25	1706938-05	0.0252	
4	F707330-BS1	0.2523	26	1706938-06	0.1743	Comments
5	F707330-BSD1	0.2741	27	1706939-01	0.0416	MS1/MSD1
6	F707330-Dup1	0.0594	28	1706939-02	0.0930	SRL 1706937-02
7	F707330-MS1	0.0562	29	1706939-03	0.11031	MS2/MSD2
8	F707330-MSD1	0.0273	30	1706939-05	0.1025	SRL: 1706938-05 1706938-05
9	F707330-MS2	0.0216	31			
10	F707330-MSD2	0.0126	32			Dup1 SRL
11	1706937-02	0.0462	33			1706938-02
12	1706937-07	0.0842	34			
13	1706937-08	0.0826	35			BS/BSD
14	1706937-09	0.0377	36			20ul of 100µg/ml 1702555
15	1706937-10	0.0370	37			70:30 reagent added by AMB 7/12/17
16	1706937-11	0.0566	38			5% BrCl added by AMB 7/13/17
17	1706937-12	0.0494	39			
18	1706937-13	0.0794	40			
19	1706937-14	0.0719	41			
20	1706937-15	0.0971	42			
21	1706938-01	0.0920	43			
22	1706938-02	0.10990	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7G18008
Reviewer:	0	Dataset ID(s):	THg26002-170717-1
Date:	7/18/2017	WO (s) #:	Various
Batch #(s):	F707329, F707330		0

Analyst Initials BC Reviewer Initials DM

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: Samples off curve, Failing DUPs, Failing MS/MSD RPD and Failing CCV
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
 (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
 (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7G18008
Reviewer:	0	Dataset ID(s):	THg26002-170717-1
Date:	7/18/2017	WO (s) #:	Various
Batch #(s):	F707329, F707330		0

Analyst Initials BC Reviewer Initials DM

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprumigen_admin\Quality Assurance\Training Master\DOCs

- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/27/2017 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 5/9/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 5/9/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

THg26002-170718-1



Frontier Global Sciences

Analysis Datasheet for Total Mercury

Date of Analysis: July 18, 2017

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7G19019, 7G19020

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	165.43 units	330.86	140.44 units	280.89	100.1 %Rec
SEQ-CAL2	1	1.00 ng/L	321.87 units	321.87	296.88 units	296.88	105.8 %Rec
SEQ-CAL3	1	5.00 ng/L	1452.23 units	290.45	1427.24 units	285.45	101.7 %Rec
SEQ-CAL4	1	20.00 ng/L	5419.56 units	270.98	5394.57 units	269.73	96.1 %Rec
SEQ-CAL5	1	40.00 ng/L	10826.14 units	270.65	10801.15 units	270.03	96.2 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 280.60 +/- 11.39 4.1% RSD 296.96

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	24.99 units	±4.30	0.08 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	2.755 ng/L	±1.258
BLK	2	3	3.091 ng/L	±1.564
BLK	3	3	5.044 ng/L	±2.056
BLK	4	3	2.139 ng/L	±0.791
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: RL 7/19/17

Instrument	Sample		LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB						
	Analyst	Type								Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments	
Hg2600-2	BC	CAL	SEQ-IBL1	1	7/18/2017 8:25:43	81366-1.RAW	8:25:43 AM	26.27				1.3	0.005	0.005	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	7/18/2017 8:29:52	81367-1.RAW	8:29:52 AM	28.50				3.5	0.013	0.013	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	7/18/2017 8:34:00	81368-1.RAW	8:34:00 AM	20.19				-4.8	-0.017	-0.017	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	7/18/2017 8:38:09	81369-1.RAW	8:38:09 AM	165.43				140.4	0.501	0.501	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	7/18/2017 8:42:17	81370-1.RAW	8:42:17 AM	321.87				296.9	1.058	1.058	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	7/18/2017 8:46:25	81371-1.RAW	8:46:25 AM	1452.23				1427.2	5.086	5.086	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	7/18/2017 8:50:33	81372-1.RAW	8:50:33 AM	5419.56				5394.6	19.225	19.225	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	7/18/2017 8:54:41	81373-1.RAW	8:54:41 AM	10626.14				10801.2	38.494	38.494	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	7/18/2017 8:58:49	81374-1.RAW	8:58:49 AM	1530.35				1505.4	5.365	5.365	ng/L	
Hg2600-2	BC	BLK	F707331-BLK1	20	7/18/2017 9:02:58	81375-1.RAW	9:02:58 AM	81.00	1			56.0	0.200	3.992	ng/L	
Hg2600-2	BC	BLK	F707331-BLK2	20	7/18/2017 9:07:06	81376-1.RAW	9:07:06 AM	64.20	1			39.2	0.140	2.795	ng/L	
Hg2600-2	BC	BLK	F707331-BLK3	20	7/18/2017 9:11:14	81377-1.RAW	9:11:14 AM	45.71	1			20.7	0.074	1.477	ng/L	
Hg2600-2	BC	SAM	F707331-BS1	20	7/18/2017 9:15:23	81378-1.RAW	9:15:23 AM	1343.83	1			1318.8	4.562	91.248	ng/L	
Hg2600-2	BC	SAM	F707331-BSD1	20	7/18/2017 9:19:31	81379-1.RAW	9:19:31 AM	1407.83	1			1382.8	4.791	95.810	ng/L	
Hg2600-2	BC	SAM	ws		7/18/2017 9:29:46	81380-1.RAW	9:29:46 AM	125.79		x		100.8	0.359	0.000	ng/L	
Hg2600-2	BC	SAM	1706298-01	400	7/18/2017 9:33:54	81381-1.RAW	9:33:54 AM	463.02	1			438.0	1.554	621.680	ng/L	
Hg2600-2	BC	SAM	1706298-02	400	7/18/2017 9:38:03	81382-1.RAW	9:38:03 AM	334.62	1			309.6	1.097	438.640	ng/L	
Hg2600-2	BC	SAM	1706298-03	400	7/18/2017 9:42:11	81383-1.RAW	9:42:11 AM	669.96	1			645.0	2.292	916.681	ng/L	
Hg2600-2	BC	SAM	1706927-01	400	7/18/2017 9:46:19	81384-1.RAW	9:46:19 AM	213.30	1			188.3	0.664	265.694	ng/L	
Hg2600-2	BC	SAM	1706931-05	400	7/18/2017 9:50:28	81385-1.RAW	9:50:28 AM	964.48	1			939.5	3.341	1336.531	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	7/18/2017 9:54:36	81386-1.RAW	9:54:36 AM	1436.35				1411.4	5.030	5.030	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	7/18/2017 9:58:45	81387-1.RAW	9:58:45 AM	45.81				20.8	0.074	0.074	ng/L	
Hg2600-2	BC	SAM	1706931-09	400	7/18/2017 10:02:53	81388-1.RAW	10:02:53 AM	2843.35	1			2818.4	10.037	4014.938	ng/L	
Hg2600-2	BC	SAM	1706939-04	400	7/18/2017 10:07:01	81389-1.RAW	10:07:01 AM	468.89	1			443.9	1.575	630.048	ng/L	
Hg2600-2	BC	SAM	1706939-06	400	7/18/2017 10:11:10	81390-1.RAW	10:11:10 AM	1108.59	1			1083.6	3.855	1541.966	ng/L	
Hg2600-2	BC	SAM	1706939-07	400	7/18/2017 10:15:18	81391-1.RAW	10:15:18 AM	311.60	1			286.6	1.015	405.824	ng/L	
Hg2600-2	BC	SAM	1706939-08	400	7/18/2017 10:19:27	81392-1.RAW	10:19:27 AM	1185.32	1			1160.3	4.128	1651.348	ng/L	
Hg2600-2	BC	SAM	1706939-09	400	7/18/2017 10:23:35	81393-1.RAW	10:23:35 AM	812.78	1			787.8	2.801	1120.277	ng/L	
Hg2600-2	BC	SAM	1706939-10	400	7/18/2017 10:27:44	81394-1.RAW	10:27:44 AM	477.54	1			452.6	1.606	642.378	ng/L	
Hg2600-2	BC	SAM	1706939-11	400	7/18/2017 10:31:52	81395-1.RAW	10:31:52 AM	1113.90	1			1088.9	3.874	1549.536	ng/L	
Hg2600-2	BC	SAM	1706939-12	400	7/18/2017 10:36:00	81396-1.RAW	10:36:00 AM	825.95	1			801.0	2.848	1139.051	ng/L	
Hg2600-2	BC	SAM	1706939-13	400	7/18/2017 10:40:09	81397-1.RAW	10:40:09 AM	992.60	1			967.6	3.442	1376.618	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	7/18/2017 10:44:17	81398-1.RAW	10:44:17 AM	1477.89				1452.9	5.178	5.178	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	7/18/2017 10:48:26	81399-1.RAW	10:48:26 AM	54.73				29.7	0.106	0.106	ng/L	
Hg2600-2	BC	SAM	1706939-14	400	7/18/2017 10:52:34	81400-1.RAW	10:52:34 AM	1258.81	1			1233.8	4.390	1756.111	ng/L	
Hg2600-2	BC	SAM	1706939-15	400	7/18/2017 10:56:42	81401-1.RAW	10:56:42 AM	2178.77	1			2153.8	7.669	3067.552	ng/L	
Hg2600-2	BC	SAM	*F707331-BLK4	400	7/18/2017 11:00:51	81402-1.RAW	11:00:51 AM	71.39	1			46.4	0.158	63.395	ng/L	
Hg2600-2	BC	SAM	1706298-02RE1	100	7/18/2017 11:04:59	81403-1.RAW	11:04:59 AM	1342.72	1			1317.7	4.669	466.866	ng/L	
Hg2600-2	BC	SAM	1706927-01RE1	100	7/18/2017 11:09:08	81404-1.RAW	11:09:08 AM	875.64	1			850.7	3.004	300.405	ng/L	
Hg2600-2	BC	SAM	1706939-07RE1	100	7/18/2017 11:13:16	81405-1.RAW	11:13:16 AM	1246.66	1			1221.7	4.326	432.631	ng/L	
Hg2600-2	BC	SAM	F707331-DUP1	400	7/18/2017 11:17:25	81406-1.RAW	11:17:25 AM	1069.40	1			1044.4	3.715	1486.099	ng/L	
Hg2600-2	BC	SAM	F707331-MS1	400	7/18/2017 11:21:33	81407-1.RAW	11:21:33 AM	3746.10	1			3721.1	13.255	5301.845	ng/L	
Hg2600-2	BC	SAM	F707331-MSD1	400	7/18/2017 11:25:41	81408-1.RAW	11:25:41 AM	4075.98	1			4051.0	14.430	5772.102	ng/L	
Hg2600-2	BC	SAM	F707331-MS2	400	7/18/2017 11:29:50	81409-1.RAW	11:29:50 AM	3858.88	1			3833.9	13.657	5462.617	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	7/18/2017 11:33:58	81410-1.RAW	11:33:58 AM	1500.48				1475.5	5.258	5.258	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	7/18/2017 11:38:07	81411-1.RAW	11:38:07 AM	72.29				47.3	0.169	0.169	ng/L	
Hg2600-2	BC	SAM	F707331-MSD2	400	7/18/2017 11:42:15	81412-1.RAW	11:42:15 AM	3813.63	1			3788.6	13.495	5398.111	ng/L	
Hg2600-2	BC	BLK	F707326-BLK8	20	7/18/2017 11:46:24	81413-1.RAW	11:46:24 AM	93.98	2			68.4	0.244	4.875	ng/L	
Hg2600-2	BC	BLK	F707326-BLK9	20	7/18/2017 11:50:32	81414-1.RAW	11:50:32 AM	59.32	2			34.3	0.122	2.447	ng/L	
Hg2600-2	BC	BLK	F707326-BLKA	20	7/18/2017 11:54:40	81415-1.RAW	11:54:40 AM	52.37	2			27.4	0.098	1.952	ng/L	
Hg2600-2	BC	SAM	F707326-DUP3	50	7/18/2017 11:58:49	81416-1.RAW	11:58:49 AM	6886.69	2			6861.7	24.392	1219.614	ng/L	
Hg2600-2	BC	SAM	WS		7/18/2017 12:08:35	81417-1.RAW	12:08:35 PM	276.16		x		251.2	0.895	0.000	ng/L	
Hg2600-2	BC	BLK	F707254-BLK1	20	7/18/2017 12:12:43	81418-1.RAW	12:12:43 PM	124.34	3			99.4	0.354	7.082	ng/L	
Hg2600-2	BC	BLK	F707254-BLK2	20	7/18/2017 12:16:52	81419-1.RAW	12:16:52 PM	96.26	3			71.3	0.254	5.080	ng/L	
Hg2600-2	BC	BLK	F707254-BLK3	20	7/18/2017 12:21:00	81420-1.RAW	12:21:00 PM	66.65	3			41.7	0.148	2.970	ng/L	
Hg2600-2	BC	SAM	F707254-BS1	20	7/18/2017 12:25:08	81421-1.RAW	12:25:08 PM	14474.24	3			14449.3	51.243	1024.856	ng/L	
Hg2600-2	BC	SAM	F707254-BSD1	20	7/18/2017 12:29:17	81422-1.RAW	12:29:17 PM	14770.14	3			14745.2	52.297	1045.947	ng/L	

Sample			LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB					
Instrument	Analyst	Type								Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-CCV4	1	7/18/2017 12:33:25	81423-1.RAW	12:33:25 PM	1689.32			1664.3	5.931	5.931	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	7/18/2017 12:37:34	81424-1.RAW	12:37:34 PM	168.27			143.3	0.511	0.511	ng/L	
Hg2600-2	BC	SAM	F707254-BS2	100	7/18/2017 12:41:42	81425-1.RAW	12:41:42 PM	2980.65	3		2955.7	10.483	1048.311	ng/L	
Hg2600-2	BC	SAM	F707254-BS2	100	7/18/2017 12:45:50	81426-1.RAW	12:45:50 PM	3103.72	3		3078.7	10.922	1092.171	ng/L	
Hg2600-2	BC	SAM	1706563-01	50	7/18/2017 12:49:59	81427-1.RAW	12:49:59 PM	214.46	3		189.5	0.574	28.719	ng/L	
Hg2600-2	BC	SAM	1706563-04	50	7/18/2017 12:54:07	81428-1.RAW	12:54:07 PM	491.20	3		466.2	1.561	78.032	ng/L	
Hg2600-2	BC	SAM	1706564-01	50	7/18/2017 12:58:16	81429-1.RAW	12:58:16 PM	902.00	3		877.0	3.025	151.234	ng/L	
Hg2600-2	BC	SAM	1706563-05	20	7/18/2017 13:12:31	81430-1.RAW	1:12:31 PM	627.27	3		602.3	1.894	37.885	ng/L	
Hg2600-2	BC	SAM	1706564-05	20	7/18/2017 13:16:39	81431-1.RAW	1:16:39 PM	2337.04	3		2312.1	7.988	159.753	ng/L	
Hg2600-2	BC	SAM	1706564-08	20	7/18/2017 13:20:48	81432-1.RAW	1:20:48 PM	697.08	3		672.1	2.143	42.861	ng/L	
Hg2600-2	BC	SAM	1706565-01	20	7/18/2017 13:24:56	81433-1.RAW	1:24:56 PM	3577.9	3		3552.9	12.410	248.197	ng/L	
Hg2600-2	BC	SAM	1706565-04	20	7/18/2017 13:29:04	81434-1.RAW	1:29:04 PM	524.73	3		499.7	1.529	30.576	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	7/18/2017 13:33:13	81435-1.RAW	1:33:13 PM	1461.23			1436.2	5.119	5.119	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	7/18/2017 13:37:22	81436-1.RAW	1:37:22 PM	78.65			53.7	0.191	0.191	ng/L	
Hg2600-2	BC	SAM	1706565-07	20	7/18/2017 13:41:30	81437-1.RAW	1:41:30 PM	324.70	3		299.7	0.816	16.319	ng/L	
Hg2600-2	BC	SAM	1706565-10	20	7/18/2017 13:45:38	81438-1.RAW	1:45:38 PM	537.60	3		512.6	1.575	31.494	ng/L	
Hg2600-2	BC	SAM	1706565-13	20	7/18/2017 13:49:47	81439-1.RAW	1:49:47 PM	456.43	3		431.4	1.285	25.708	ng/L	
Hg2600-2	BC	SAM	1706565-16	20	7/18/2017 13:53:55	81440-1.RAW	1:53:55 PM	1121.54	3		1096.6	3.656	73.115	ng/L	
Hg2600-2	BC	SAM	1706565-19	20	7/18/2017 13:58:03	81441-1.RAW	1:58:03 PM	1357.25	3		1332.3	4.496	89.916	ng/L	
Hg2600-2	BC	SAM	EFGS08029 TV 1000ng	1000	7/18/2017 14:02:12	81442-1.RAW	2:02:12 PM	3179.61	x		3154.6	11.243	11242.612	ng/L	
Hg2600-2	BC	SAM	EFGD08132 tv 1000ng	1000	7/18/2017 14:06:20	81443-1.RAW	2:06:20 PM	2681.66	x		2656.7	9.468	9467.992	ng/L	
Hg2600-2	BC	SAM	1706563-01RE1	20	7/18/2017 14:10:29	81444-1.RAW	2:10:29 PM	298.94	3		274.0	0.724	14.483	ng/L	
Hg2600-2	BC	SAM	1706565-29	5000	7/18/2017 14:14:37	81445-1.RAW	2:14:37 PM	664.54	3		639.6	2.278	11391.325	ng/L	
Hg2600-2	BC	SAM	1706565-30	#####	7/18/2017 14:18:46	81446-1.RAW	2:18:46 PM	650.93	3		625.9	2.231	1115379.786	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	7/18/2017 14:22:54	81447-1.RAW	2:22:54 PM	1451.68			1426.7	5.085	5.085	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	7/18/2017 14:27:02	81448-1.RAW	2:27:02 PM	78.56			53.6	0.191	0.191	ng/L	
Hg2600-2	BC	SAM	WS		7/18/2017 14:33:17	81450-1.RAW	2:33:17 PM	495.93	x		470.9	1.678	0.000	ng/L	
Hg2600-2	BC	SAM	1706565-31	5000	7/18/2017 14:37:25	81449-2.RAW	2:37:25 PM	7688.82	3		7663.8	27.312	136558.811	ng/L	
Hg2600-2	BC	SAM	F707254-DUP1	20	7/18/2017 14:41:34	81451-1.RAW	2:41:34 PM	435.02	3		410.0	1.209	24.182	ng/L	
Hg2600-2	BC	SAM	F707254-DUP2	20	7/18/2017 14:45:42	81452-1.RAW	2:45:42 PM	1632.44	3		1607.5	5.477	109.531	ng/L	
Hg2600-2	BC	SAM	F707254-MS1	20	7/18/2017 14:49:51	81453-1.RAW	2:49:51 PM	865.10	3		840.1	2.742	54.837	ng/L	
Hg2600-2	BC	SAM	F707254-MSD1	20	7/18/2017 14:53:59	81454-1.RAW	2:53:59 PM	846.91	3		821.9	2.677	53.540	ng/L	
Hg2600-2	BC	SAM	F707254-MS2	50	7/18/2017 14:58:07	81455-1.RAW	2:58:07 PM	3529.49	3		3504.5	12.389	619.433	ng/L	
Hg2600-2	BC	SAM	F707254-MSD2	50	7/18/2017 15:02:16	81456-1.RAW	3:02:16 PM	3622.31	3		3597.3	12.719	635.973	ng/L	
Hg2600-2	BC	SAM	1706565-25	20	7/18/2017 15:06:24	81457-1.RAW	3:06:24 PM	1149.92	3		1124.9	3.757	75.138	ng/L	
Hg2600-2	BC	SAM	F707254-DUP3	20	7/18/2017 15:10:33	81458-1.RAW	3:10:33 PM	278.09	3		253.1	0.650	12.997	ng/L	
Hg2600-2	BC	SAM	F707254-DUP4	50	7/18/2017 15:14:41	81459-1.RAW	3:14:41 PM	900.54	3		875.6	3.019	150.973	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	7/18/2017 15:18:49	81460-1.RAW	3:18:49 PM	1465.77			1440.8	5.135	5.135	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	7/18/2017 15:22:58	81461-1.RAW	3:22:58 PM	72.89			47.9	0.171	0.171	ng/L	
Hg2600-2	BC	BLK	F707292-BLK1	20	7/18/2017 15:27:06	81462-1.RAW	3:27:06 PM	66.00	4		41.0	0.146	2.923	ng/L	
Hg2600-2	BC	BLK	F707292-BLK2	20	7/18/2017 15:31:15	81463-1.RAW	3:31:15 PM	55.20	4		30.2	0.108	2.154	ng/L	
Hg2600-2	BC	BLK	F707292-BLK3	20	7/18/2017 15:35:23	81464-1.RAW	3:35:23 PM	43.80	4		18.8	0.067	1.341	ng/L	
Hg2600-2	BC	SAM	F707292-BS1	100	7/18/2017 15:39:31	81465-1.RAW	3:39:31 PM	2862.82	4		2837.8	10.092	1009.223	ng/L	
Hg2600-2	BC	SAM	F707292-BSD1	100	7/18/2017 15:43:40	81466-1.RAW	3:43:40 PM	2938.53	4		2913.5	10.362	1036.205	ng/L	
Hg2600-2	BC	SAM	1706565-17	20	7/18/2017 15:47:48	81467-1.RAW	3:47:48 PM	672.83	4		647.8	2.202	44.037	ng/L	
Hg2600-2	BC	SAM	1706565-18	20	7/18/2017 15:51:57	81468-1.RAW	3:51:57 PM	1125.43	4		1100.4	3.815	76.297	ng/L	
Hg2600-2	BC	SAM	1706565-20	20	7/18/2017 15:56:05	81469-1.RAW	3:56:05 PM	2010.20	4		1985.2	6.968	139.361	ng/L	
Hg2600-2	BC	SAM	1706565-21	20	7/18/2017 16:00:14	81470-1.RAW	4:00:14 PM	2234.35	4		2209.4	7.767	155.338	ng/L	
Hg2600-2	BC	SAM	1706565-22	20	7/18/2017 16:04:22	81471-1.RAW	4:04:22 PM	1070.05	4		1045.1	3.617	72.350	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8	1	7/18/2017 16:08:30	81472-1.RAW	4:08:30 PM	1488.70			1463.7	5.216	5.216	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB8	1	7/18/2017 16:12:39	81473-1.RAW	4:12:39 PM	70.44			45.5	0.162	0.162	ng/L	
Hg2600-2	BC	SAM	1706565-23	20	7/18/2017 16:16:47	81474-1.RAW	4:16:47 PM	1358.61	4		1333.6	4.646	92.917	ng/L	
Hg2600-2	BC	SAM	1706565-24	20	7/18/2017 16:20:56	81475-1.RAW	4:20:56 PM	1218.70	4		1193.7	4.147	82.945	ng/L	
Hg2600-2	BC	SAM	1706565-26	20	7/18/2017 16:25:04	81476-1.RAW	4:25:04 PM	843.18	4		818.2	2.809	56.179	ng/L	
Hg2600-2	BC	SAM	1706565-27	20	7/18/2017 16:29:13	81477-1.RAW	4:29:13 PM	1179.43	4		1154.4	4.007	80.146	ng/L	
Hg2600-2	BC	SAM	1706565-28	20	7/18/2017 16:33:21	81478-1.RAW	4:33:21 PM	1508.09	4		1483.1	5.179	103.572	ng/L	
Hg2600-2	BC	SAM	1706565-32	5000	7/18/2017 16:37:29	81479-1.RAW	4:37:29 PM	684.76	4		659.8	2.351	11754.535	ng/L	
Hg2600-2	BC	SAM	1706565-33	#####	7/18/2017 16:41:38	81480-1.RAW	4:41:38 PM	5294.05	4		5269.1	18.778	9389079.904	ng/L	
Hg2600-2	BC	SAM	1706565-34	5000	7/18/2017 16:45:46	81481-1.RAW	4:45:46 PM	10088.71	4		10063.7	35.865	179325.984	ng/L	
Hg2600-2	BC	SAM	F707292-DUP1	20	7/18/2017 16:49:55	81482-1.RAW	4:49:55 PM	1286.61	4		1261.6	4.389	87.786	ng/L	
Hg2600-2	BC	SAM	F707292-MS1	20	7/18/2017 16:54:03	81483-1.RAW	4:54:03 PM	3769.41	4		3744.4	13.238	264.752	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV9	1	7/18/2017 16:58:11	81484-1.RAW	4:58:11 PM	1559.54			1534.6	5.469	5.469	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB9	1	7/18/2017 17:02:20	81485-1.RAW	5:02:20 PM	88.05			63.1	0.225	0.225	ng/L	
Hg2600-2	BC	SAM	F707292-MSD1	20	7/18/2017 17:06:28	81486-1.RAW	5:06:28 PM	3731.70	4		3706.7	13.103	262.064	ng/L	
Hg2600-2	BC	SAM	F707292-DUP2	20	7/18/2017 17:10:37	81487-1.RAW	5:10:37 PM	1112.08	4		1087.1	3.767	75.346	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hg2600-2	BC	CAL	SEQ-CCVA	1	7/18/2017 17:14:45	81488-1.RAW	5:14:45 PM	1520.35			1495.4	5.329	5.329	ng/L	
Hg2600-2	BC	CAL	SEQ-CCBA	1	7/18/2017 17:18:54	81489-1.RAW	5:18:54 PM	70.26			45.3	0.161	0.161	ng/L	
Hg2600-2	BC	SAM	SnCl2 1704302	1	7/18/2017 17:23:02	81490-1.RAW	5:23:02 PM	43.02		x	18.0	0.064	0.064	ng/L	
Hg2600-2	BC	SAM	CLEAN		7/18/2017 17:25:53	81491-1.RAW	5:25:53 PM	18.59		x	-6.4	-0.023	0.000	ng/L	
Hg2600-2	BC	SAM	WS		7/18/2017 17:30:02	81492-1.RAW	5:30:02 PM	55.31		x	30.3	0.108	0.000	ng/L	
Hg2600-2	BC	SAM	WS		7/18/2017 17:34:10	81493-1.RAW	5:34:10 PM	37.71		x	12.7	0.045	0.000	ng/L	
Hg2600-2	BC	SAM	WS		7/18/2017 17:38:19	81494-1.RAW	5:38:19 PM	32.62		x	7.6	0.027	0.000	ng/L	
Hg2600-2	BC	CAL	SEQ-CCVB	1	7/18/2017 17:42:27	81495-1.RAW	5:42:27 PM	1377.72			1352.7	4.821	4.821	ng/L	
Hg2600-2	BC	CAL	SEQ-CCBB	1	7/18/2017 17:46:35	81496-1.RAW	5:46:35 PM	77.30			52.3	0.186	0.186	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-IBL1	1	7/18/2017 8:25:43	81366-1.RAW	8:25:43 AM	26.27			1.3	0.005	0.005	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	7/18/2017 8:29:52	81367-1.RAW	8:29:52 AM	28.50			3.5	0.013	0.013	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	7/18/2017 8:34:00	81368-1.RAW	8:34:00 AM	20.19			-4.8	-0.017	-0.017	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	7/18/2017 8:38:09	81369-1.RAW	8:38:09 AM	165.43			140.4	0.501	0.501	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	7/18/2017 8:42:17	81370-1.RAW	8:42:17 AM	321.87			296.9	1.058	1.058	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	7/18/2017 8:46:25	81371-1.RAW	8:46:25 AM	1452.23			1427.2	5.086	5.086	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	7/18/2017 8:50:33	81372-1.RAW	8:50:33 AM	5419.56			5394.6	19.225	19.225	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	7/18/2017 8:54:41	81373-1.RAW	8:54:41 AM	10826.14			10801.2	38.494	38.494	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	7/18/2017 8:58:49	81374-1.RAW	8:58:49 AM	1530.35			1505.4	5.365	5.365	ng/L	
Hg2600-2	BC	BLK	F707331-BLK1	20	7/18/2017 9:02:58	81375-1.RAW	9:02:58 AM	81.00			56.0	0.208	3.992	ng/L	
Hg2600-2	BC	BLK	F707331-BLK2	20	7/18/2017 9:07:06	81376-1.RAW	9:07:06 AM	64.20			39.2	0.140	2.795	ng/L	
Hg2600-2	BC	BLK	F707331-BLK3	20	7/18/2017 9:11:14	81377-1.RAW	9:11:14 AM	45.71			20.7	0.074	1.477	ng/L	
Hg2600-2	BC	SAM	F707331-BS1	20	7/18/2017 9:15:23	81378-1.RAW	9:15:23 AM	1343.83			1318.8	4.562	91.248	ng/L	
Hg2600-2	BC	SAM	F707331-BSD1	20	7/18/2017 9:19:31	81379-1.RAW	9:19:31 AM	1407.83			1382.8	4.791	95.810	ng/L	
Hg2600-2	BC	SAM	ws		7/18/2017 9:29:46	81380-1.RAW	9:29:46 AM	125.79			100.8	0.359	0.000	ng/L	
Hg2600-2	BC	SAM	1706298-01	400	7/18/2017 9:33:54	81381-1.RAW	9:33:54 AM	463.02			438.0	1.554	621.680	ng/L	
Hg2600-2	BC	SAM	1706298-02	400	7/18/2017 9:38:03	81382-1.RAW	9:38:03 AM	334.62			309.6	1.097	438.640	ng/L	
Hg2600-2	BC	SAM	1706298-03	400	7/18/2017 9:42:11	81383-1.RAW	9:42:11 AM	669.96			645.0	2.292	916.681	ng/L	
Hg2600-2	BC	SAM	1706927-01	400	7/18/2017 9:46:19	81384-1.RAW	9:46:19 AM	213.30			188.3	0.664	265.694	ng/L	
Hg2600-2	BC	SAM	1706931-05	400	7/18/2017 9:50:28	81385-1.RAW	9:50:28 AM	964.48			939.5	3.341	1336.531	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	7/18/2017 9:54:36	81386-1.RAW	9:54:36 AM	1436.35			1411.4	5.030	5.030	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	7/18/2017 9:58:45	81387-1.RAW	9:58:45 AM	45.81			20.8	0.074	0.074	ng/L	
Hg2600-2	BC	SAM	1706931-09	400	7/18/2017 10:02:53	81388-1.RAW	10:02:53 AM	2843.35			2818.4	10.037	4014.938	ng/L	
Hg2600-2	BC	SAM	1706939-04	400	7/18/2017 10:07:01	81389-1.RAW	10:07:01 AM	468.89			443.9	1.575	630.048	ng/L	
Hg2600-2	BC	SAM	1706939-06	400	7/18/2017 10:11:10	81390-1.RAW	10:11:10 AM	1108.59			1083.6	3.855	1541.966	ng/L	
Hg2600-2	BC	SAM	1706939-07	400	7/18/2017 10:15:18	81391-1.RAW	10:15:18 AM	311.60			286.6	1.015	405.824	ng/L	
Hg2600-2	BC	SAM	1706939-08	400	7/18/2017 10:19:27	81392-1.RAW	10:19:27 AM	1185.32			1160.3	4.128	1651.348	ng/L	
Hg2600-2	BC	SAM	1706939-09	400	7/18/2017 10:23:35	81393-1.RAW	10:23:35 AM	812.78			787.8	2.801	1120.277	ng/L	
Hg2600-2	BC	SAM	1706939-10	400	7/18/2017 10:27:44	81394-1.RAW	10:27:44 AM	477.54			452.6	1.606	642.378	ng/L	
Hg2600-2	BC	SAM	1706939-11	400	7/18/2017 10:31:52	81395-1.RAW	10:31:52 AM	1113.90			1088.9	3.874	1549.536	ng/L	
Hg2600-2	BC	SAM	1706939-12	400	7/18/2017 10:36:00	81396-1.RAW	10:36:00 AM	825.95			801.0	2.848	1139.051	ng/L	
Hg2600-2	BC	SAM	1706939-13	400	7/18/2017 10:40:09	81397-1.RAW	10:40:09 AM	992.60			967.6	3.442	1376.618	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	7/18/2017 10:44:17	81398-1.RAW	10:44:17 AM	1477.89			1452.9	5.178	5.178	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	7/18/2017 10:48:26	81399-1.RAW	10:48:26 AM	54.73			29.7	0.106	0.106	ng/L	
Hg2600-2	BC	SAM	1706939-14	400	7/18/2017 10:52:34	81400-1.RAW	10:52:34 AM	1258.81			1233.8	4.390	1756.111	ng/L	
Hg2600-2	BC	SAM	1706939-15	400	7/18/2017 10:56:42	81401-1.RAW	10:56:42 AM	2178.77			2153.8	7.669	3067.552	ng/L	
Hg2600-2	BC	SAM	F707331-BLK4	400	7/18/2017 11:00:51	81402-1.RAW	11:00:51 AM	71.39			46.4	0.158	63.395	ng/L	
Hg2600-2	BC	SAM	1706298-02RE1	100	7/18/2017 11:04:59	81403-1.RAW	11:04:59 AM	1342.72			1317.7	4.669	466.866	ng/L	
Hg2600-2	BC	SAM	1706927-01RE1	100	7/18/2017 11:09:08	81404-1.RAW	11:09:08 AM	875.64			850.7	3.004	300.405	ng/L	
Hg2600-2	BC	SAM	1706939-07RE1	100	7/18/2017 11:13:16	81405-1.RAW	11:13:16 AM	1246.66			1221.7	4.326	432.631	ng/L	
Hg2600-2	BC	SAM	F707331-DUP1	400	7/18/2017 11:17:25	81406-1.RAW	11:17:25 AM	1069.40			1044.4	3.715	1486.099	ng/L	
Hg2600-2	BC	SAM	F707331-MS1	400	7/18/2017 11:21:33	81407-1.RAW	11:21:33 AM	3746.10			3721.1	13.255	5301.845	ng/L	
Hg2600-2	BC	SAM	F707331-MSD1	400	7/18/2017 11:25:41	81408-1.RAW	11:25:41 AM	4075.98			4051.0	14.430	5772.102	ng/L	
Hg2600-2	BC	SAM	F707331-MS2	400	7/18/2017 11:29:50	81409-1.RAW	11:29:50 AM	3858.88			3833.9	13.657	5462.617	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	7/18/2017 11:33:58	81410-1.RAW	11:33:58 AM	1500.48			1475.5	5.258	5.258	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	7/18/2017 11:38:07	81411-1.RAW	11:38:07 AM	72.29			47.3	0.169	0.169	ng/L	
Hg2600-2	BC	SAM	F707331-MSD2	400	7/18/2017 11:42:15	81412-1.RAW	11:42:15 AM	3813.63			3788.6	13.495	5398.111	ng/L	
Hg2600-2	BC	BLK	F707326-BLK8	20	7/18/2017 11:46:24	81413-1.RAW	11:46:24 AM	93.38			68.4	0.244	4.875	ng/L	
Hg2600-2	BC	BLK	F707326-BLK9	20	7/18/2017 11:50:32	81414-1.RAW	11:50:32 AM	59.32			34.3	0.122	2.447	ng/L	
Hg2600-2	BC	BLK	F707326-BLK4	20	7/18/2017 11:54:40	81415-1.RAW	11:54:40 AM	52.37			27.4	0.098	1.952	ng/L	
Hg2600-2	BC	SAM	F707326-DUP3	50	7/18/2017 11:58:49	81416-1.RAW	11:58:49 AM	6886.69			6861.7	24.392	1219.614	ng/L	
Hg2600-2	BC	SAM	ws		7/18/2017 12:08:35	81417-1.RAW	12:08:35 PM	276.16			251.2	Error	#VALUE!	ng/L	
Hg2600-2	BC	BLK	F707254-BLK1	20	7/18/2017 12:12:43	81418-1.RAW	12:12:43 PM	124.34			99.4	0.354	7.082	ng/L	
Hg2600-2	BC	BLK	F707254-BLK2	20	7/18/2017 12:16:52	81419-1.RAW	12:16:52 PM	96.26			71.3	0.254	5.080	ng/L	
Hg2600-2	BC	BLK	F707254-BLK3	20	7/18/2017 12:21:00	81420-1.RAW	12:21:00 PM	66.65			41.7	0.148	2.970	ng/L	
Hg2600-2	BC	SAM	F707254-BS1	20	7/18/2017 12:25:08	81421-1.RAW	12:25:08 PM	14474.24			14449.3	51.243	1024.856	ng/L	
Hg2600-2	BC	SAM	F707254-BSD1	20	7/18/2017 12:29:17	81422-1.RAW	12:29:17 PM	14770.14			14745.2	52.297	1045.947	ng/L	

Handwritten note: p 7/18/18

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Sample			LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB					
Instrument	Analyst	Type								Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	CAL	SEQ-CCV4	1	7/18/2017 12:33:25	81423-1.RAW	12:33:25 PM	1689.32			1664.3	5.931	5.931	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	7/18/2017 12:37:34	81424-1.RAW	12:37:34 PM	168.27			143.3	0.511	0.511	ng/L	
Hg2600-2	BC	SAM	F707254-BS2	100	7/18/2017 12:41:42	81425-1.RAW	12:41:42 PM	2980.65	3		2955.7	10.483	1048.311	ng/L	
Hg2600-2	BC	SAM	F707254-BSD2	100	7/18/2017 12:45:50	81426-1.RAW	12:45:50 PM	3103.72	3		3078.7	10.922	1092.171	ng/L	
Hg2600-2	BC	SAM	1706563-01	50	7/18/2017 12:49:59	81427-1.RAW	12:49:59 PM	214.46	3		189.5	0.574	28.719	ng/L	
Hg2600-2	BC	SAM	1706563-04	50	7/18/2017 12:54:07	81428-1.RAW	12:54:07 PM	491.20	3		466.2	1.561	78.032	ng/L	
Hg2600-2	BC	SAM	1706564-01	50	7/18/2017 12:58:16	81429-1.RAW	12:58:16 PM	902.00	3		877.0	3.025	151.234	ng/L	
Hg2600-2	BC	SAM	1706563-05	20	7/18/2017 13:12:31	81430-1.RAW	1:12:31 PM	627.27	3		602.3	1.894	37.885	ng/L	
Hg2600-2	BC	SAM	1706564-05	20	7/18/2017 13:16:39	81431-1.RAW	1:16:39 PM	2337.04	3		2312.1	7.988	159.753	ng/L	
Hg2600-2	BC	SAM	1706564-08	20	7/18/2017 13:20:48	81432-1.RAW	1:20:48 PM	697.08	3		672.1	2.143	42.861	ng/L	
Hg2600-2	BC	SAM	1706565-01	20	7/18/2017 13:24:56	81433-1.RAW	1:24:56 PM	3577.9	3		3552.9	12.410	248.197	ng/L	
Hg2600-2	BC	SAM	1706565-04	20	7/18/2017 13:29:04	81434-1.RAW	1:29:04 PM	524.73	3		499.7	1.529	30.576	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	7/18/2017 13:33:13	81435-1.RAW	1:33:13 PM	1461.23			1436.2	5.119	5.119	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	7/18/2017 13:37:22	81436-1.RAW	1:37:22 PM	78.65			53.7	0.191	0.191	ng/L	
Hg2600-2	BC	SAM	1706565-07	20	7/18/2017 13:41:30	81437-1.RAW	1:41:30 PM	324.70	3		299.7	0.816	16.319	ng/L	
Hg2600-2	BC	SAM	1706565-10	20	7/18/2017 13:45:38	81438-1.RAW	1:45:38 PM	537.60	3		512.6	1.575	31.494	ng/L	
Hg2600-2	BC	SAM	1706565-13	20	7/18/2017 13:49:47	81439-1.RAW	1:49:47 PM	456.43	3		431.4	1.285	25.708	ng/L	
Hg2600-2	BC	SAM	1706565-16	20	7/18/2017 13:53:55	81440-1.RAW	1:53:55 PM	1121.54	3		1096.6	3.656	73.115	ng/L	
Hg2600-2	BC	SAM	1706565-19	20	7/18/2017 13:58:03	81441-1.RAW	1:58:03 PM	1357.25	3		1332.3	4.496	89.916	ng/L	
Hg2600-2	BC	SAM	EFGS08029 TV 1000ng	1000	7/18/2017 14:02:12	81442-1.RAW	2:02:12 PM	3179.61			3154.6	11.243	11242.612	ng/L	
Hg2600-2	BC	SAM	EFGD08132 tv 1000ng	1000	7/18/2017 14:06:20	81443-1.RAW	2:06:20 PM	2681.66			2656.7	9.468	9467.992	ng/L	
Hg2600-2	BC	SAM	1706563-01RE1	20	7/18/2017 14:10:29	81444-1.RAW	2:10:29 PM	298.94	3		274.0	0.724	14.483	ng/L	
Hg2600-2	BC	SAM	1706565-29	5000	7/18/2017 14:14:37	81445-1.RAW	2:14:37 PM	664.54	3		639.6	2.278	11391.325	ng/L	
Hg2600-2	BC	SAM	1706565-30	#####	7/18/2017 14:18:46	81446-1.RAW	2:18:46 PM	650.93	3		625.9	2.231	1115379.786	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	7/18/2017 14:22:54	81447-1.RAW	2:22:54 PM	1451.68			1426.7	5.085	5.085	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	7/18/2017 14:27:02	81448-1.RAW	2:27:02 PM	78.56			53.6	0.191	0.191	ng/L	
Hg2600-2	BC	SAM	WS		7/18/2017 14:33:17	81450-1.RAW	2:33:17 PM	495.93	x		470.9	1.678	0.000	ng/L	
Hg2600-2	BC	SAM	1706565-31	5000	7/18/2017 14:37:25	81449-2.RAW	2:37:25 PM	7688.82	3		7663.8	27.312	136558.811	ng/L	
Hg2600-2	BC	SAM	F707254-DUP1	20	7/18/2017 14:41:34	81451-1.RAW	2:41:34 PM	435.02	3		410.0	1.209	24.182	ng/L	
Hg2600-2	BC	SAM	F707254-DUP2	20	7/18/2017 14:45:42	81452-1.RAW	2:45:42 PM	1632.44	3		1607.5	5.477	109.531	ng/L	
Hg2600-2	BC	SAM	F707254-MS1	20	7/18/2017 14:49:51	81453-1.RAW	2:49:51 PM	865.10	3		840.1	2.742	54.837	ng/L	
Hg2600-2	BC	SAM	F707254-MSD1	20	7/18/2017 14:53:59	81454-1.RAW	2:53:59 PM	846.91	3		821.9	2.677	53.540	ng/L	
Hg2600-2	BC	SAM	F707254-MS2	50	7/18/2017 14:58:07	81455-1.RAW	2:58:07 PM	3529.49	3		3504.5	12.389	619.433	ng/L	
Hg2600-2	BC	SAM	F707254-MSD2	50	7/18/2017 15:02:16	81456-1.RAW	3:02:16 PM	3622.31	3		3597.3	12.719	635.973	ng/L	
Hg2600-2	BC	SAM	1706565-25	20	7/18/2017 15:06:24	81457-1.RAW	3:06:24 PM	1149.92	3		1124.9	3.757	75.138	ng/L	
Hg2600-2	BC	SAM	F707254-DUP3	20	7/18/2017 15:10:33	81458-1.RAW	3:10:33 PM	278.09	3		253.1	0.650	12.997	ng/L	
Hg2600-2	BC	SAM	F707254-DUP4	50	7/18/2017 15:14:41	81459-1.RAW	3:14:41 PM	900.54	3		875.6	3.019	150.973	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	7/18/2017 15:18:49	81460-1.RAW	3:18:49 PM	1465.77			1440.8	5.135	5.135	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	7/18/2017 15:22:58	81461-1.RAW	3:22:58 PM	72.89			47.9	0.171	0.171	ng/L	
Hg2600-2	BC	BLK	F707292-BLK1	20	7/18/2017 15:27:06	81462-1.RAW	3:27:06 PM	66.00	4		41.0	0.146	2.923	ng/L	
Hg2600-2	BC	BLK	F707292-BLK2	20	7/18/2017 15:31:15	81463-1.RAW	3:31:15 PM	55.20	4		30.2	0.108	2.154	ng/L	
Hg2600-2	BC	BLK	F707292-BLK3	20	7/18/2017 15:35:23	81464-1.RAW	3:35:23 PM	43.80	4		18.8	0.067	1.341	ng/L	
Hg2600-2	BC	SAM	F707292-BS1	100	7/18/2017 15:39:31	81465-1.RAW	3:39:31 PM	2862.82	4		2837.8	10.092	1009.223	ng/L	
Hg2600-2	BC	SAM	F707292-BSD1	100	7/18/2017 15:43:40	81466-1.RAW	3:43:40 PM	2938.53	4		2913.5	10.362	1036.205	ng/L	
Hg2600-2	BC	SAM	1706565-17	20	7/18/2017 15:47:48	81467-1.RAW	3:47:48 PM	672.83	4		647.8	2.202	44.037	ng/L	
Hg2600-2	BC	SAM	1706565-18	20	7/18/2017 15:51:57	81468-1.RAW	3:51:57 PM	1125.43	4		1100.4	3.815	76.297	ng/L	
Hg2600-2	BC	SAM	1706565-20	20	7/18/2017 15:56:05	81469-1.RAW	3:56:05 PM	2010.20	4		1985.2	6.968	139.361	ng/L	
Hg2600-2	BC	SAM	1706565-21	20	7/18/2017 16:00:14	81470-1.RAW	4:00:14 PM	2234.35	4		2209.4	7.767	155.338	ng/L	
Hg2600-2	BC	SAM	1706565-22	20	7/18/2017 16:04:22	81471-1.RAW	4:04:22 PM	1070.05	4		1045.1	3.617	72.350	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8	1	7/18/2017 16:08:30	81472-1.RAW	4:08:30 PM	1488.70			1463.7	5.216	5.216	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB8	1	7/18/2017 16:12:39	81473-1.RAW	4:12:39 PM	70.44			45.5	0.162	0.162	ng/L	
Hg2600-2	BC	SAM	1706565-23	20	7/18/2017 16:16:47	81474-1.RAW	4:16:47 PM	1358.61	4		1333.6	4.646	92.917	ng/L	
Hg2600-2	BC	SAM	1706568-24	20	7/18/2017 16:20:56	81475-1.RAW	4:20:56 PM	1218.70	4		1193.7	4.147	82.945	ng/L	
Hg2600-2	BC	SAM	1706565-26	20	7/18/2017 16:25:04	81476-1.RAW	4:25:04 PM	843.18	4		818.2	2.809	56.179	ng/L	
Hg2600-2	BC	SAM	1706565-27	20	7/18/2017 16:29:13	81477-1.RAW	4:29:13 PM	1179.43	4		1154.4	4.007	80.146	ng/L	
Hg2600-2	BC	SAM	1706565-28	20	7/18/2017 16:33:21	81478-1.RAW	4:33:21 PM	1508.09	4		1483.1	5.179	103.572	ng/L	
Hg2600-2	BC	SAM	1706565-32	5000	7/18/2017 16:37:29	81479-1.RAW	4:37:29 PM	684.76	4		659.8	2.351	11754.535	ng/L	
Hg2600-2	BC	SAM	1706565-33	#####	7/18/2017 16:41:38	81480-1.RAW	4:41:38 PM	5294.05	4		5269.1	18.778	9389079.904	ng/L	
Hg2600-2	BC	SAM	1706565-34	5000	7/18/2017 16:45:46	81481-1.RAW	4:45:46 PM	10088.71	4		10063.7	35.865	179325.984	ng/L	
Hg2600-2	BC	SAM	F707292-DUP1	20	7/18/2017 16:49:55	81482-1.RAW	4:49:55 PM	1286.61	4		1261.6	4.389	87.786	ng/L	
Hg2600-2	BC	SAM	F707292-MS1	20	7/18/2017 16:54:03	81483-1.RAW	4:54:03 PM	3769.41	4		3744.4	13.238	264.752	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV9	1	7/18/2017 16:58:11	81484-1.RAW	4:58:11 PM	1559.54			1534.6	5.469	5.469	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB9	1	7/18/2017 17:02:20	81485-1.RAW	5:02:20 PM	88.05			63.1	0.225	0.225	ng/L	
Hg2600-2	BC	SAM	F707292-MSD1	20	7/18/2017 17:06:28	81486-1.RAW	5:06:28 PM	3731.70	4		3706.7	13.103	262.064	ng/L	
Hg2600-2	BC	SAM	F707292-DUP2	20	7/18/2017 17:10:37	81487-1.RAW	5:10:37 PM	1112.08	4		1087.1	3.767	75.346	ng/L	

R. Hahn

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hg2600-2	BC	CAL	SEQ-CCVA	1	7/18/2017 17:14:45	81488-1.RAW	5:14:45 PM	1520.35			1495.4	5.329	5.329	ng/L	
Hg2600-2	BC	CAL	SEQ-CCBA	1	7/18/2017 17:18:54	81489-1.RAW	5:18:54 PM	70.26			45.3	0.161	0.161	ng/L	
Hg2600-2	BC	SAM	SnCl2 1704302	1	7/18/2017 17:23:02	81490-1.RAW	5:23:02 PM	43.02		x	18.0	0.064	0.064	ng/L	
Hg2600-2	BC	SAM	CLEAN		7/18/2017 17:25:53	81491-1.RAW	5:25:53 PM	18.59		x	-6.4	-0.023	0.000	ng/L	
Hg2600-2	BC	SAM	WS		7/18/2017 17:30:02	81492-1.RAW	5:30:02 PM	55.31		x	30.3	0.108	0.000	ng/L	
Hg2600-2	BC	SAM	WS		7/18/2017 17:34:10	81493-1.RAW	5:34:10 PM	37.71		x	12.7	0.045	0.000	ng/L	
Hg2600-2	BC	SAM	WS		7/18/2017 17:38:19	81494-1.RAW	5:38:19 PM	32.62		x	7.6	0.027	0.000	ng/L	
Hg2600-2	BC	CAL	SEQ-CCVB	1	7/18/2017 17:42:27	81495-1.RAW	5:42:27 PM	1377.72			1352.7	4.821	4.821	ng/L	
Hg2600-2	BC	CAL	SEQ-CCBB	1	7/18/2017 17:46:35	81496-1.RAW	5:46:35 PM	77.30			52.3	0.186	0.186	ng/L	

R. Hahn

TotalMercury EPA1631
 Operati BC
 BlankSi 24.984
 Calib Eqn: Conc = (Area-24.98
 Run Date: 7/18/2017
 Blank SD: 4.302558763
 Worksh THg260
 CalibFa 280.6
 Status: QC Warnings:14/QC
 Run Time: 14:29:08
 Blank RSD%: 17.22104212
 Method ##### R: 1 R²: 1
 CF SD: 11.38728851
 Descrip THg26002-170718-1
 CF RSD%: 4.058250689

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean				0.00	8.94					81361-1.RAW	8:06:18	2507.22	Clean	OK	1
clean				0.00	0.04					81362-1.RAW	8:09:10	9.83	Clean	OK	1
ws				24.98	0.02					81363-1.RAW	8:13:18	29.34	Sample	OK	1
ws				24.98	0.00					81364-1.RAW	8:17:27	24.56	Sample	OK	1
ws				24.98	0.00					81365-1.RAW	8:21:35	20.47	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.09					81366-1.RAW	8:25:43	26.27	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.10					81367-1.RAW	8:29:52	28.50	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.07					81368-1.RAW	8:34:00	20.19	Sample	OK	1
SEQ-CAL1	A4		1	24.98	0.50			100.10		81369-1.RAW	8:38:09	165.43	Sample	OK	1
SEQ-CAL2	A5		1	24.98	1.06			105.80		81370-1.RAW	8:42:17	321.87	Sample	OK	1
SEQ-CAL3	A6		1	24.98	5.09			101.73		81371-1.RAW	8:46:25	1452.23	Sample	OK	1
SEQ-CAL4	A7		1	24.98	19.23			96.13		81372-1.RAW	8:50:33	5419.56	Sample	OK	1
SEQ-CAL5	A8		1	24.98	38.49			96.23		81373-1.RAW	8:54:41	10826.14	Sample	OK	1
SEQ-ICV1	A9		1	24.98	5.36			107.30		81374-1.RAW	8:58:49	1530.35	Sample	OK	1
F707331-BLK1	A10		20	24.98	3.99					81375-1.RAW	9:02:58	81.00	Sample	OK	1
F707331-BLK2	A11		20	24.98	2.80					81376-1.RAW	9:07:06	64.20	Sample	OK	1
F707331-BLK3	A12		20	24.98	1.48					81377-1.RAW	9:11:14	45.71	Sample	OK	1
F707331-BS1	A13		20	24.98	94.00					81378-1.RAW	9:15:23	1343.83	Sample	OK	1
F707331-BSD1	A14		20	24.98	98.57					81379-1.RAW	9:19:31	1407.83	Sample	OK	1
ws				24.98	0.36					81380-1.RAW	9:29:46	125.79	Sample	OK	1
1706298-01	A15		400	24.98	624.43					81381-1.RAW	9:33:54	463.02	Sample	OK	1
1706298-02	A16		400	24.98	441.40					81382-1.RAW	9:38:03	334.62	Sample	OK	1
1706298-03	A17		400	24.98	919.44					81383-1.RAW	9:42:11	669.96	Sample	OK	1
1706927-01	A18		400	24.98	268.46					81384-1.RAW	9:46:19	213.30	Sample	OK	1
1706931-05	A19		400	24.98	1339.29					81385-1.RAW	9:50:28	964.48	Sample	OK	1
SEQ-CCV1	A20		1	24.98	5.03			100.60		81386-1.RAW	9:54:36	1436.35	Sample	OK	1
SEQ-CCB1	A21		1	24.98	0.07			0.00		81387-1.RAW	9:58:45	45.81	Sample	OK	1
1706931-09	B1		400	24.98	4017.68					81388-1.RAW	10:02:53	2843.35	Sample	OK	1
1706939-04	B2		400	24.98	632.81					81389-1.RAW	10:07:01	468.89	Sample	OK	1
1706939-06	B3		400	24.98	1544.72					81390-1.RAW	10:11:10	1108.59	Sample	OK	1
1706939-07	B4		400	24.98	408.58					81391-1.RAW	10:15:18	311.60	Sample	OK	1
1706939-08	B5		400	24.98	1654.10					81392-1.RAW	10:19:27	1185.32	Sample	OK	1
1706939-09	B6		400	24.98	1123.03					81393-1.RAW	10:23:35	812.78	Sample	OK	1
1706939-10	B7		400	24.98	645.14					81394-1.RAW	10:27:44	477.54	Sample	OK	1
1706939-11	B8		400	24.98	1552.29					81395-1.RAW	10:31:52	1113.90	Sample	OK	1
1706939-12	B9		400	24.98	1141.80					81396-1.RAW	10:36:00	825.95	Sample	OK	1
1706939-13	B10		400	24.98	1379.37					81397-1.RAW	10:40:09	992.60	Sample	OK	1
SEQ-CCV2	B11		1	24.98	5.18			103.56		81398-1.RAW	10:44:17	1477.89	Sample	OK	1
SEQ-CCB2	B12		1	24.98	0.11			0.00		81399-1.RAW	10:48:26	54.73	Sample	OK	1
1706939-14	B13		400	24.98	1758.87					81400-1.RAW	10:52:34	1258.81	Sample	OK	1
1706939-15	B14		400	24.98	3070.31					81401-1.RAW	10:56:42	2178.77	Sample	OK	1
*F707331-BLK4	B15		400	24.98	66.15					81402-1.RAW	11:00:51	71.39	Sample	OK	1
1706298-02RE1	B16		100	24.98	469.62					81403-1.RAW	11:04:59	1342.72	Sample	OK	1
1706927-01RE1	B17		100	24.98	303.16					81404-1.RAW	11:09:08	875.64	Sample	OK	1

1706939-07RE1	B18	100	24.98	435.39		81405-1.RAW	11:13:16	1246.66	Sample	OK	1
F707331-DUP1	B19	400	24.98	1488.85		81406-1.RAW	11:17:25	1069.40	Sample	OK	1
F707331-MS1	B20	400	24.98	5304.58	356.05	81407-1.RAW	11:21:33	3746.10	Sample	OK	1
F707331-MSD1	B21	400	24.98	5774.85		81408-1.RAW	11:25:41	4075.98	Sample	OK	1
F707331-MS2	C1	400	24.98	5465.36	94.61	81409-1.RAW	11:29:50	3858.88	Sample	OK	1
SEQ-CCV3	C2	1	24.98	5.26	105.17	81410-1.RAW	11:33:58	1500.48	Sample	OK	1
SEQ-CCB3	C3	1	24.98	0.17	0.00	81411-1.RAW	11:38:07	72.29	Sample	OK	1
F707331-MSD2	C4	400	24.98	5400.86		81412-1.RAW	11:42:15	3813.63	Sample	OK	1
F707326-BLK8	C5	20	24.98	4.88		81413-1.RAW	11:46:24	93.38	Sample	OK	1
F707326-BLK9	C6	20	24.98	2.45		81414-1.RAW	11:50:32	59.32	Sample	OK	1
F707326-BLKA	C7	20	24.98	1.95		81415-1.RAW	11:54:40	52.37	Sample	OK	1
F707326-DUP3	C8	50	24.98	1222.70		81416-1.RAW	11:58:49	6886.69	Sample	FB	1
WS			24.98	0.90		81417-1.RAW	12:08:35	276.16	Sample	OK	1
F707254-BLK1	C9	20	24.98	7.08		81418-1.RAW	12:12:43	124.34	Sample	OK	1
F707254-BLK2	C10	20	24.98	5.08		81419-1.RAW	12:16:52	96.26	Sample	OK	1
F707254-BLK3	C11	20	24.98	2.97		81420-1.RAW	12:21:00	66.65	Sample	OK	1
F707254-BS1	C12	20	24.98	1029.90		81421-1.RAW	12:25:08	14474.24	Sample	FB	1
F707254-BSD1	C13	20	24.98	1050.99		81422-1.RAW	12:29:17	14770.14	Sample	FB	1
SEQ-CCV4	C14	1	24.98	5.93	118.63	81423-1.RAW	12:33:25	1689.32	Sample	OK	1
SEQ-CCB4	C15	1	24.98	0.51	0.00	81424-1.RAW	12:37:34	168.27	Sample	OK	1
F707254-BS2	C16	100	24.98	1053.35		81425-1.RAW	12:41:42	2980.65	Sample	OK	1
F707254-BSD2	C17	100	24.98	1097.21		81426-1.RAW	12:45:50	3103.72	Sample	OK	1
1706563-01	C18	50	24.98	33.76		81427-1.RAW	12:49:59	214.46	Sample	OK	1
1706563-04	C19	50	24.98	83.08		81428-1.RAW	12:54:07	491.20	Sample	OK	1
1706564-01	C20	50	24.98	156.28		81429-1.RAW	12:58:16	902.00	Sample	OK	1
1706563-05	C21	20	24.98	42.93		81430-1.RAW	13:12:31	627.27	Sample	OK	1
1706564-05	A1	20	24.98	164.80		81431-1.RAW	13:16:39	2337.04	Sample	OK	1
1706564-08	A2	20	24.98	47.90		81432-1.RAW	13:20:48	697.08	Sample	OK	1
1706565-01	A3	20	24.98	253.24		81433-1.RAW	13:24:56	3577.90	Sample	OK	1
1706565-04	A4	20	24.98	35.62		81434-1.RAW	13:29:04	524.73	Sample	OK	1
SEQ-CCV5	A5	1	24.98	5.12	102.37	81435-1.RAW	13:33:13	1461.23	Sample	OK	1
SEQ-CCB5	A6	1	24.98	0.19	0.00	81436-1.RAW	13:37:22	78.65	Sample	OK	1
1706565-07	A7	20	24.98	21.36		81437-1.RAW	13:41:30	324.70	Sample	OK	1
1706565-10	A8	20	24.98	36.54		81438-1.RAW	13:45:38	537.60	Sample	OK	1
1706565-13	A9	20	24.98	30.75		81439-1.RAW	13:49:47	456.43	Sample	OK	1
1706565-16	A10	20	24.98	78.16		81440-1.RAW	13:53:55	1121.54	Sample	OK	1
1706565-19	A11	20	24.98	94.96		81441-1.RAW	13:58:03	1357.25	Sample	OK	1
EFGS08029 TV	A12	1000	24.98	11242.59		81442-1.RAW	14:02:12	3179.61	Sample	OK	1
EFGD08132 tv 1	A13	1000	24.98	9467.98		81443-1.RAW	14:06:20	2681.66	Sample	OK	1
1706563-01RE1	A14	20	24.98	19.53		81444-1.RAW	14:10:29	298.94	Sample	OK	1
1706565-29	A15	5000	24.98	11396.41		81445-1.RAW	14:14:37	664.54	Sample	OK	1
1706565-30	A15	500000	24.98	1115383.48		81446-1.RAW	14:18:46	650.93	Sample	OK	1
SEQ-CCV6	A17	1	24.98	5.08	101.69	81447-1.RAW	14:22:54	1451.68	Sample	OK	1
SEQ-CCB6	A18	1	24.98	0.19	0.00	81448-1.RAW	14:27:02	78.56	Sample	OK	1
WS			24.98	1.68		81450-1.RAW	14:33:17	495.93	Sample	OK	1
1706565-31	A19	5000	24.98	136563.60		81449-2.RAW	14:37:25	7688.82	Sample	OK	1
F707254-DUP1	A20	20	24.98	29.23		81451-1.RAW	14:41:34	435.02	Sample	OK	1
F707254-DUP2	A21	20	24.98	114.57		81452-1.RAW	14:45:42	1632.44	Sample	OK	1

F707254-MS1	B1	20	24.98	59.88	51.81	81453-1.RAW	14:49:51	865.10	Sample	OK	1
F707254-MSD1	B2	20	24.98	58.58		81454-1.RAW	14:53:59	846.91	Sample	OK	1
F707254-MS2	B3	50	24.98	624.48	1030.76	81455-1.RAW	14:58:07	3529.49	Sample	OK	1
F707254-MSD2	B4	50	24.98	641.01		81456-1.RAW	15:02:16	3622.31	Sample	OK	1
1706565-25	B5	20	24.98	80.18		81457-1.RAW	15:06:24	1149.92	Sample	OK	1
F707254-DUP3	B6	20	24.98	18.04		81458-1.RAW	15:10:33	278.09	Sample	OK	1
F707254-DUP4	B7	50	24.98	156.02		81459-1.RAW	15:14:41	900.54	Sample	OK	1
SEQ-CCV7	B8	1	24.98	5.13	102.69	81460-1.RAW	15:18:49	1465.77	Sample	OK	1
SEQ-CCB7	B9	1	24.98	0.17	0.00	81461-1.RAW	15:22:58	72.89	Sample	OK	1
F707292-BLK1	B10	20	24.98	2.92		81462-1.RAW	15:27:06	66.00	Sample	OK	1
F707292-BLK2	B11	20	24.98	2.15		81463-1.RAW	15:31:15	55.20	Sample	OK	1
F707292-BLK3	B12	20	24.98	1.34		81464-1.RAW	15:35:23	43.80	Sample	OK	1
F707292-BS1	B13	100	24.98	1011.36		81465-1.RAW	15:39:31	2862.82	Sample	OK	1
F707292-BSD1	B14	100	24.98	1038.34		81466-1.RAW	15:43:40	2938.53	Sample	OK	1
1706565-17	B15	20	24.98	46.18		81467-1.RAW	15:47:48	672.83	Sample	OK	1
1706565-18	B16	20	24.98	78.44		81468-1.RAW	15:51:57	1125.43	Sample	OK	1
1706565-20	B17	20	24.98	141.50		81469-1.RAW	15:56:05	2010.20	Sample	OK	1
1706565-21	B18	20	24.98	157.48		81470-1.RAW	16:00:14	2234.35	Sample	OK	1
1706565-22	B19	20	24.98	74.49		81471-1.RAW	16:04:22	1070.05	Sample	OK	1
SEQ-CCV8	B20	1	24.98	5.22	104.33	81472-1.RAW	16:08:30	1488.70	Sample	OK	1
SEQ-CCB8	B21	1	24.98	0.16	0.00	81473-1.RAW	16:12:39	70.44	Sample	OK	1
1706565-23	C1	20	24.98	95.06		81474-1.RAW	16:16:47	1358.61	Sample	OK	1
1706565-24	C2	20	24.98	85.08		81475-1.RAW	16:20:56	1218.70	Sample	OK	1
1706565-26	C3	20	24.98	58.32		81476-1.RAW	16:25:04	843.18	Sample	OK	1
1706565-27	C4	20	24.98	82.29		81477-1.RAW	16:29:13	1179.43	Sample	OK	1
1706565-28	C5	20	24.98	105.71		81478-1.RAW	16:33:21	1508.09	Sample	OK	1
1706565-32	C6	5000	24.98	11756.71		81479-1.RAW	16:37:29	684.76	Sample	OK	1
1706565-33	C7	500000	24.98	9389059.21		81480-1.RAW	16:41:38	5294.05	Sample	OK	1
1706565-34	C8	5000	24.98	179327.69		81481-1.RAW	16:45:46	10088.71	Sample	OK	1
F707292-DUP1	C9	20	24.98	89.93		81482-1.RAW	16:49:55	1286.61	Sample	OK	1
F707292-MS1	C10	20	24.98	266.89	26689.09	81483-1.RAW	16:54:03	3769.41	Sample	OK	1
SEQ-CCV9	C11	1	24.98	5.47	109.38	81484-1.RAW	16:58:11	1559.54	Sample	OK	1
SEQ-CCB9	C12	1	24.98	0.22	0.00	81485-1.RAW	17:02:20	88.05	Sample	OK	1
F707292-MSD1	C13	20	24.98	264.20		81486-1.RAW	17:06:28	3731.70	Sample	OK	1
F707292-DUP2	C14	20	24.98	77.48		81487-1.RAW	17:10:37	1112.08	Sample	OK	1
SEQ-CCVA	C15	1	24.98	5.33		81488-1.RAW	17:14:45	1520.35	Sample	OK	1
SEQ-CCBA	C16	1	24.98	0.16		81489-1.RAW	17:18:54	70.26	Sample	OK	1
SnCl2 1704302	C17	1	24.98	0.06		81490-1.RAW	17:23:02	43.02	Sample	OK	1
CLEAN			0.00	0.07		81491-1.RAW	17:25:53	18.59	Clean	OK	1
WS			24.98	0.11		81492-1.RAW	17:30:02	55.31	Sample	OK	1
WS			24.98	0.05		81493-1.RAW	17:34:10	37.71	Sample	OK	1
WS			24.98	0.03		81494-1.RAW	17:38:19	32.62	Sample	OK	1
SEQ-CCVB	C18	1	24.98	4.82		81495-1.RAW	17:42:27	1377.72	Sample	OK	1
SEQ-CCBB	C19	1	24.98	0.19		81496-1.RAW	17:46:35	77.30	Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE
PEER-REVIEWED

7G19019



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: R 7/19/17 Analyzed: 7/18/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G19019-IBL1 ✓	QC	1			
7G19019-IBL2 ✓	QC	2			
7G19019-IBL3 ✓	QC	3			
7G19019-CAL1 ✓	QC	4	1702602	✓	
7G19019-CAL2 ✓	QC	5	1702603	✓	
7G19019-CAL3 ✓	QC	6	1702604	✓	
7G19019-CAL4 ✓	QC	7	1702605	✓	
7G19019-CAL5 ✓	QC	8	1702606	✓	
7G19019-ICV1 ✓	QC	9	1703679	✓	
F707331-BLK1 ✓	QC	10			
F707331-BLK2 ✓	QC	11			
F707331-BLK3 ✓	QC	12			
F707331-BS1 ✓	QC	13			
F707331-BSD1 ✓	QC	14			
1706298-01 ✓	Hg-CVAFS-T-7030	15			Scan all data for level IV report
1706298-02 ✓	Hg-CVAFS-T-7030	16			Scan all data for level IV report
1706298-03 ✓	Hg-CVAFS-T-7030	17			Scan all data for level IV report
1706927-01 ✓	Hg-CVAFS-T-7030	18			Scan all data for level IV report
1706931-05 ✓	Hg-CVAFS-T-7030	19			
7G19019-CCV1 ✓	QC	20	1703679	✓	
7G19019-CCB1 ✓	QC	21			
1706931-09 ✓	Hg-CVAFS-T-7030	22			
1706939-04 ✓	Hg-CVAFS-T-7030	23			
1706939-06 ✓	Hg-CVAFS-T-7030	24			
1706939-07 ✓	Hg-CVAFS-T-7030	25			
1706939-08 ✓	Hg-CVAFS-T-7030	26			
1706939-09 ✓	Hg-CVAFS-T-7030	27			
1706939-10 ✓	Hg-CVAFS-T-7030	28			
1706939-11 ✓	Hg-CVAFS-T-7030	29			
1706939-12 ✓	Hg-CVAFS-T-7030	30			
1706939-13 ✓	Hg-CVAFS-T-7030	31			
7G19019-CCV2 ✓	QC	32	1703679	✓	
7G19019-CCB2 ✓	QC	33			
1706939-14 ✓	Hg-CVAFS-T-7030	34			
1706939-15 ✓	Hg-CVAFS-T-7030	35			

ANALYSIS SEQUENCE

7G19019



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 7/18/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F707331-BLK4 ✓	QC	36			
1706298-02RE1 ✓	Hg-CVAFS-T-7030	37			Added 7/19/2017 by BC
1706927-01RE1 ✓	Hg-CVAFS-T-7030	38			Added 7/19/2017 by BC
1706939-07RE1 ✓	Hg-CVAFS-T-7030	39			Added 7/19/2017 by BC
F707331-DUP1 ✓	QC	40			
F707331-MS1 ✓	QC	41			
F707331-MSD1 ✓	QC	42			
F707331-MS2 ✓	QC	43			
7G19019-CCV3 ✓	QC	44	1703679		
7G19019-CCB3 ✓	QC	45			
F707331-MSD2 ✓	QC	46			
F707326-BLK8 ✓	QC	47			
F707326-BLK9 ✓	QC	48			
F707326-BLKA ✓	QC	49			
F707326-DUP3 ✓	QC	50			
7G19019-CCV4 ✓	QC	51	1703679		
7G19019-CCB4 ✓	QC	52			

Beck 7/19/17
 Samples Loaded By Date

Beck 7/19/17
 Data Processed By Date

10ndg
7/18/17

PREPARATION BENCH SHEET

F707331

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707331-BLK1	Blank	0.25	20					
F707331-BLK2	Blank	0.25	20					
F707331-BLK3	Blank	0.25	20					
F707331-BLK4	Filter BLK for 1706927-01	0.2525	20					
F707331-BS1	LCS	0.25	20	1702555	20			
F707331-BSD1	LCS Dup	0.25	20	1702555	20			
F707331-DUP1	Duplicate [1706931-05]	0.2812	20					
F707331-MS1	Matrix Spike [1706939-04]	0.0372	20	1700685	100			
F707331-MS2	Matrix Spike [1706298-02]	0.2718	20	1700685	100			
F707331-MSD1	Matrix Spike Dup [1706939-04]	0.0325	20	1700685	100			
F707331-MSD2	Matrix Spike Dup [1706298-02]	0.2608	20	1700685	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
			1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00
			1704212	5% BrCl	18-Dec-17 00:00

PREPARATION BENCH SHEET

F707331

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706298-01	OL-2590-01	0.298	20	-	-	-	Scan all data for level IV report	
1706298-02	OL-2590-02	0.2522	20	QC	-	-	MS/MSD Scan all data for level IV report	
1706298-03	OL-2590-03	0.2995	20	-	-	-	Scan all data for level IV report	
1706927-01	OL-2617-01	0.2523	20	-	-	-	Scan all data for level IV report	
1706931-05	MMSW-C_17BN004_062317_TIN_05_WB	0.2852	20	-	-	-		
1706931-09	MMSW-C_17PT001_062317_SPI_04_WB	0.2546	20	-	-	-		
1706939-04	ADD-01_17MN009_062117_NSS_04_BL	0.045	20	QC	-	-	MS/MSD	
1706939-06	ADD-01_17MN004_062117_NSS_06_BL	0.0822	20	-	-	-		
1706939-07	ADD-01_17MN006_062117_NSS_07_BL	0.0255	20	-	-	-		
1706939-08	ADD-01_17MN006_062117_NSS_08_BL	0.0964	20	-	-	-		
1706939-09	ADD-01_17MN001_062217_NSS_09_BL	0.0653	20	-	-	-		
1706939-10	ADD-01_17MN007_062217_NSS_10_BL	0.0586	20	-	-	-		
1706939-11	ADD-01_17MN002_062217_NSS_11_BL	0.082	20	-	-	-		
1706939-12	ADD-01_17MN002_062217_NSS_12_BL	0.061	20	-	-	-		
1706939-13	ADD-01_17MN011_062217_NSS_13_BL	0.1044	20	-	-	-		
1706939-14	ADD-01_17MN050_062717_NSS_14_BL	0.0764	20	-	-	-		
1706939-15	ADD-01_17MN051_062717_NSS_15_BL	0.0992	20	-	-	-		

PREPARATION BENCH SHEET

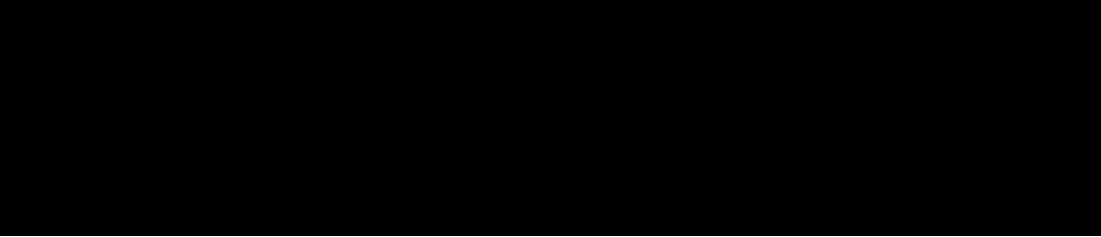
F707331

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017



PREPARATION BENCH SHEET

2600-2
BC 7/10/17

F707331

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707331-BLK1	Blank	0.25	20					20x
F707331-BLK2	Blank	0.25	20					20x
F707331-BLK3	Blank	0.25	20					20x
F707331-BLK4	Filter BLK for 1706927-01	0.2525	20					20x
F707331-BS1	LCS	0.25	20	1702555	20			20x
F707331-BSD1	LCS Dup	0.25	20	1702555	20			20x
F707331-DUP1	Duplicate [1706931-05]	0.2812	20					400x
F707331-MS1	Matrix Spike [1706939-04]	0.0372	20	1700685	100			400x
F707331-MS2	Matrix Spike [1706298-02]	0.2718	20	1700685	100			400x
F707331-MSD1	Matrix Spike Dup [1706939-04]	0.0325	20	1700685	100			400x
F707331-MSD2	Matrix Spike Dup [1706298-02]	0.2608	20	1700685	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1704177	70/30 Digestion Acid	07-Jan-18 00:00
			1704212	5% BrCl	18-Dec-17 00:00

1703702
1703701
1704095
1709182

Due Date: 7/20/2017

PREPARATION BENCH SHEET

2600-2

Bc 7/19/17

F707331

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706298-01	OL-2590-01	0.298	20	-	-	-	Scan all data for level IV report	400x
1706298-02	OL-2590-02	0.2522	20	QC	-	-	MS/MSD Scan all data for level IV report	400x → 100x
1706298-03	OL-2590-03	0.2995	20	-	-	-	Scan all data for level IV report	400x
1706927-01	OL-2617-01	0.2523	20	-	-	-	Scan all data for level IV report	400x → 100x
1706931-05	MMSW-C_17BN004_062317_TIN_05_WB	0.2852	20	-	-	-		400x
1706931-09	MMSW-C_17PT001_062317_SPI_04_WB	0.2546	20	-	-	-		400x
1706939-04	ADD-01_17MN009_062117_NSS_04_BL	0.045	20	QC	-	-	MS/MSD	400x
1706939-06	ADD-01_17MN004_062117_NSS_06_BL	0.0822	20	-	-	-		400x
1706939-07	ADD-01_17MN006_062117_NSS_07_BL	0.0255	20	-	-	-		400x → 100x
1706939-08	ADD-01_17MN006_062117_NSS_08_BL	0.0964	20	-	-	-		400x
1706939-09	ADD-01_17MN001_062217_NSS_09_BL	0.0653	20	-	-	-		400x
1706939-10	ADD-01_17MN007_062217_NSS_10_BL	0.0586	20	-	-	-		400x
1706939-11	ADD-01_17MN002_062217_NSS_11_BL	0.082	20	-	-	-		400x
1706939-12	ADD-01_17MN002_062217_NSS_12_BL	0.061	20	-	-	-		400x
1706939-13	ADD-01_17MN011_062217_NSS_13_BL	0.1044	20	-	-	-		400x
1706939-14	ADD-01_17MN050_062717_NSS_14_BL	0.0764	20	-	-	-		400x
1706939-15	ADD-01_17MN051_062717_NSS_15_BL	0.0992	20	-	-	-		400x

PREPARATION BENCH SHEET

2600-2
BC 7/19/17

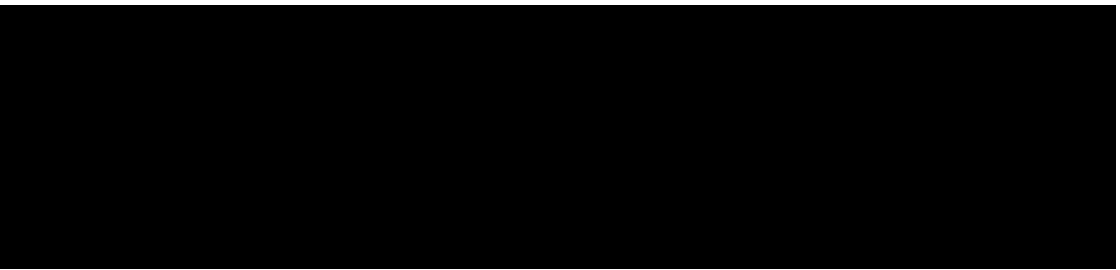
F707331

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/12/2017



Technician: CUC Batch#: F707331 Date: 7/12/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 1930 Actual Temp. (raw): 77.0 °C w/ CF: 77.0 °C
 Time out: 2130 Actual Temp. (raw): 79.0 °C w/ CF: 78.7 °C

*Time in can't begin before target temperature is reached
 Final vol.: 20 mL (LIMS ID: 1704212) Spike vol.: 100 µL (LIMS ID: 1700685)
 Spike Witness: om 7/12/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0407852 Calibration Date: 7/7/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1704177 Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 yes
 Glass Vial # 00068124 Boiling Chip lot # 1702551 *Hotblock Position: A7 B7
AMB 7-12-17

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input checked="" type="checkbox"/> N/A
1	F707331-BLK1	0.28010	23	1706931-09	0.2546	
2	F707331-BLK2	0.2658	24	1706298-01	0.2980	
3	F707331-BLK3	0.2562	25	1706298-02	0.2522	
4	F707331-BS1	0.2732	26	1706298-03	0.2915	Comments
5	F707331-BSD1	0.2578	27	1706298-04	0.2523	MS/MSD1
6	F707331-DUP1	0.2812	28	1706931-05		SRC: 1706939-04
7	F707331-MS1	0.0372	29	1706931-05		MS2/MSD2
8	F707331-MSD1	0.0325	30	1707104-01		SRC: 1706931-05
9	F707331-MS2	0.2718	31	F707331-BLK4	0.2525	DUP1 SRC: 1706931-05
10	F707331-MSD2	0.2608	32	F707331-BLK5	0.2742	1706931-05
11	1706939-04	0.0450	33			
12	1706939-06	0.0822	34			BLK4 is Filter BLK for 1706927-01
13	1706939-07	0.0255	35			
14	1706939-08	0.0964	36			
15	1706939-09	0.0653	37			BLK5 is Filter BLK for 1707104-01
16	1706939-10	0.0586	38			
17	1706939-11	0.0820	39			
18	1706939-12	0.0610	40			BS/BSD: 20ml of 100mg/mL
19	1706939-13	0.1044	41			1702555 Reagent added by AMB (70:30) 7-12-17
20	1706939-14	0.0764	42			
21	1706939-15	0.0992	43			
22	1706931-05	0.2852	44			

PREPARATION BENCH SHEET

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707326-BLK1	Blank	0.25	20					
F707326-BLK2	Blank	0.25	20					
F707326-BLK3	Blank	0.25	20					
F707326-BLK4	Pre BLK 1706929	0.2556	20					
F707326-BLK5	Post BLK 1706929	0.2596	20					
F707326-BLK6	PRE BLK 1706930,931,932	0.2624	20					
F707326-BLK7	POST BLK 1706930,931,932	0.2633	20					
F707326-BLK8	Blank	0.5	20					
F707326-BLK9	Blank	0.5	20					
F707326-BLKA	Blank	0.5	20					
F707326-BS1	LCS	0.25	20	1702555	20			
F707326-BSD1	LCS Dup	0.25	20	1702555	20			
F707326-DUP1	Duplicate [1706929-05]	0.2571	20					
F707326-DUP2	Duplicate [1706929-05]	0.2885	20					
F707326-DUP3	Duplicate [1706929-05]	0.2571	20					
F707326-MS1	Matrix Spike [1706930-01RE1]	0.2943	20	1700685	200			
F707326-MS2	Matrix Spike [1706930-06]	0.2667	20	1700685	100			
F707326-MSD1	Matrix Spike Dup [1706930-01RE1]	0.2878	20	1700685	200			
F707326-MSD2	Matrix Spike Dup [1706930-06]	0.2763	20	1700685	100			

PREPARATION BENCH SHEET

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
		31-Jul-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703377	THg Dilute 1% BrCl	
			1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1704061	70/30 Digestion Acid	02-Jan-18 00:00
			1704095	3% SnCl ₂ THg reductant	25-Dec-17 00:00
			1704145	5% BrCl	18-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00

PREPARATION BENCH SHEET

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706929-01	W17-N_17BN005_062417_TIN_01_WB	0.2851	20	-	-	-		
1706929-01RE1	W17-N_17BN005_062417_TIN_01_WB	0.2851	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2561	20	-	-	-		
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.2745	20	-	-	-		
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2981	20	-	-	-		
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2885	20	-	-	-		
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2744	20	-	-	-		
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2718	20	-	-	-		
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2677	20	-	-	-		
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2595	20	-	-	-		
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2569	20	-	-	-		
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2801	20	QC	-	-	MS/MSD	
1706930-01RE1	MMSE-1_17BN001_062117_TIN_01_WB	0.2801	20	QC	-	-	MS/MSD Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2607	20	-	-	-		
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2508	20	-	-	-		
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2606	20	QC	-	-	MS/MSD	
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2908	20	-	-	-		
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2535	20	-	-	-		
1706931-10	MMSW-C_17PT005_062317_SPI_05_WB	0.275	20	-	-	-		

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707326

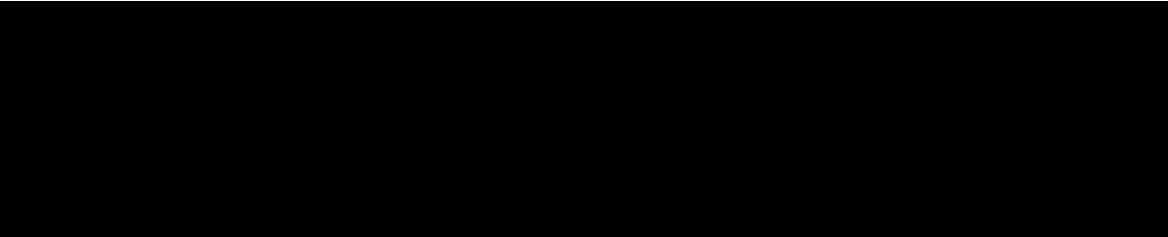
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

1706932-06	ADD-01_17HC001_062317_SPI_01_WB	0.2816	20	-	-	-		
1706932-07	ADD-01_17HC001_062717_SPI_02_WB	0.2588	20	-	-	-		



PREPARATION BENCH SHEET

2600.2
 BY 7/19/17

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707326-BLK1	Blank	0.25	20					
F707326-BLK2	Blank	0.25	20					
F707326-BLK3	Blank	0.25	20					
F707326-BLK4	Pre BLK 1706929	0.2556	20					
F707326-BLK5	Post BLK 1706929	0.2596	20					
F707326-BLK6	PRE BLK 1706930,931,932	0.2624	20					
F707326-BLK7	POST BLK 1706930,931,932	0.2633	20					
F707326-BS1	LCS	0.25	20	1702555	20			
F707326-BSD1	LCS Dup	0.25	20	1702555	20			
F707326-DUP1	Duplicate [1706929-05]	0.2571	20					
F707326-DUP2	Duplicate [1706929-05]	0.2885	20					
F707326-DUP3	SOX Duplicate [1706929-05]	0.2571	40.20					50X
F707326-MS1	Matrix Spike [1706930-01RE1]	0.2943	20	1700685	200			
F707326-MS2	Matrix Spike [1706930-06]	0.2667	20	1700685	100			
F707326-MSD1	Matrix Spike Dup [1706930-01RE1]	0.2878	20	1700685	200			
F707326-MSD2	Matrix Spike Dup [1706930-06]	0.2763	20	1700685	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700685	THg 1,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
		31-Jul-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1702555	THg 100ng/mL Primary Spiking Standard	26-Jul-17 00:00	1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
			1703377	THg Dilute 1% BrCl	
			1704061	70/30 Digestion Acid	02-Jan-18 00:00
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
			1704145	5% BrCl	18-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00

BLK 8, 9, A 20X

Due Date: 7/31/2017

1703701
 1703702

PREPARATION BENCH SHEET

2600-2
BL 7/18/17

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 7/11/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706929-01	W17-N_17BN005_062417_TIN_01_WB	0.2851	20	-	-	-		
1706929-01RE1	W17-N_17BN005_062417_TIN_01_WB	0.2851	20	-	-	-	Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2561	20	-	-	-		
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.2745	20	-	-	-		
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2981	20	-	-	-		
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2885	20	-	-	-		
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2744	20	-	-	-		
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2718	20	-	-	-		
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2677	20	-	-	-		
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2595	20	-	-	-		
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2569	20	-	-	-		
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2801	20	QC	-	-	MS/MSD	
1706930-01RE1	MMSE-1_17BN001_062117_TIN_01_WB	0.2801	20	QC	-	-	MS/MSD Added 7/14/2017 by DM2	Added 7/14/2017 by DM2
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2607	20	-	-	-		
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2508	20	-	-	-		
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2606	20	QC	-	-	MS/MSD	
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2908	20	-	-	-		
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2535	20	-	-	-		
1706931-10	MMSW-C_17PT005_062317_SPI_05_WB	0.275	20	-	-	-		

Due Date: 7/31/2017

PREPARATION BENCH SHEET

2600 -2

BL 7/19/17

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion


Prepared: 7/11/2017

1706932-06	ADD-01_17HC001_062317_SPI_01_WB	0.2816	20	-	-	-		
1706932-07	ADD-01_17HC001_062717_SPI_02_WB	0.2588	20	-	-	-		




Failing Data Report - 7G19019

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707326-DUP3	Hg-CVAFS-T-7030	94.87	1.94	49.71	49.71		ng/g				62.5	24.00	PASS-OVER	FAIL-DUP	QR-07



 Analyst Reviewed By _____ Date 7/19/17



 Peer Reviewed By _____ Date 7/19/17

R H 46
3/2 7/19/17
JK PC 7/19/17

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G19020

PIER-REVIEWED

Instrument: Hg2600-2



Calibration ID: UNASSIGNED

INITIALS: *R 2/19/17* Analyzed: 7/18/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G19020-IBL1 ✓	QC	1			
7G19020-IBL2 ✓	QC	2			
7G19020-IBL3 ✓	QC	3			
7G19020-CAL1 ✓	QC	4	1702602	✓	
7G19020-CAL2 ✓	QC	5	1702603	✓	
7G19020-CAL3 ✓	QC	6	1702604	✓	
7G19020-CAL4 ✓	QC	7	1702605	✓	
7G19020-CAL5 ✓	QC	8	1702606	✓	
7G19020-ICV1 ✓	QC	9	1703679		
7G19020-CCV1 ✓	QC	10	1703679		
7G19020-CCB1 ✓	QC	11			
7G19020-CCV2 ✓	QC	12	1703679	✓	
7G19020-CCB2 ✓	QC	13			
7G19020-CCV3 ✓	QC	14	1703679	✓	
7G19020-CCB3 ✓	QC	15			
F707254-BLK1 ✓	QC	16			
F707254-BLK2 ✓	QC	17			
F707254-BLK3 ✓	QC	18			
F707254-BS1 ✓	QC	19			
F707254-BSD1 ✓	QC	20			
7G19020-CCV4 ✓	QC	21	1703679	✓	
7G19020-CCB4 ✓	QC	22			
F707254-BS2 ✓	QC	23			
F707254-BSD2 ✓	QC	24			
1706563-01 ✓	Hg-CVAFS-S-SSE-F5	25			
1706563-04 ✓	Hg-CVAFS-S-SSE-F5	26			
1706564-01 ✓	Hg-CVAFS-S-SSE-F5	27			
1706563-05 ✓	Hg-CVAFS-S-SSE-F5	28			
1706564-05 ✓	Hg-CVAFS-S-SSE-F5	29			
1706564-08 ✓	Hg-CVAFS-S-SSE-F5	30			
1706565-01 ✓	Hg-CVAFS-S-SSE-F5	31			
1706565-04 ✓	Hg-CVAFS-S-SSE-F5	32			
7G19020-CCV5 ✓	QC	33	1703679	✓	
7G19020-CCB5 ✓	QC	34			
1706565-07 ✓	Hg-CVAFS-S-SSE-F5	35			

ANALYSIS SEQUENCE

7G19020



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 7/18/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706565-10 ✓	Hg-CVAFS-S-SSE-F5	36			
1706565-13 ✓	Hg-CVAFS-S-SSE-F5	37			
1706565-16	Hg-CVAFS-S-SSE-F5	38			
1706565-19	Hg-CVAFS-S-SSE-F5	39			
1706563-01RE1 ✓	Hg-CVAFS-S-SSE-F5	40			Added 7/19/2017 by BC
1706565-29 ✓	Hg-CVAFS-S-SSE-F5	41			
1706565-30 ✓	Hg-CVAFS-S-SSE-F5	42			
7G19020-CCV6 ✓	QC	43	1703679 ✓		
7G19020-CCB6 ✓	QC	44			
1706565-31 ✓	Hg-CVAFS-S-SSE-F5	45			
F707254-DUP1 ✓	QC	46			
F707254-DUP2 ✓	QC	47			
F707254-MS1 ✓	QC	48			
F707254-MSD1 ✓	QC	49			
F707254-MS2 ✓	QC	50			
F707254-MSD2 ✓	QC	51			
1706565-25 ✓	Hg-CVAFS-S-SSE-F5	52			
F707254-DUP3 ✓	QC	53			
F707254-DUP4 ✓	QC	54			
7G19020-CCV7 ✓	QC	55	1703679		
7G19020-CCB7 ✓	QC	56			
F707292-BLK1 ✓	QC	57			
F707292-BLK2 ✓	QC	58			
F707292-BLK3 ✓	QC	59			
F707292-BS1 ✓	QC	60			
F707292-BSD1 ✓	QC	61			
1706565-17 ✓	Hg-CVAFS-S-SSE-F5	62			
1706565-18 ✓	Hg-CVAFS-S-SSE-F5	63			
1706565-20 ✓	Hg-CVAFS-S-SSE-F5	64			
1706565-21 ✓	Hg-CVAFS-S-SSE-F5	65			
1706565-22 ✓	Hg-CVAFS-S-SSE-F5	66			
7G19020-CCV8 ✓	QC	67	1703679		
7G19020-CCB8 ✓	QC	68			
1706565-23 ✓	Hg-CVAFS-S-SSE-F5	69			
1706565-24 ✓	Hg-CVAFS-S-SSE-F5	70			

Due Date: 7/18/2017

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Page 2 of 3

ANALYSIS SEQUENCE

7G19020



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 7/18/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706565-26 ✓	Hg-CVAFS-S-SSE-F5	71			
1706565-27 ✓	Hg-CVAFS-S-SSE-F5	72			
1706565-28 ✓	Hg-CVAFS-S-SSE-F5	73			
1706565-32 ✓	Hg-CVAFS-S-SSE-F5	74			
1706565-33 ✓	Hg-CVAFS-S-SSE-F5	75			
1706565-34 ✓	Hg-CVAFS-S-SSE-F5	76			
F707292-DUP1 ✓	QC	77			
F707292-MS1 ✓	QC	78			
7G19020-CCV9 ✓	QC	79	1703679	✓	
7G19020-CCB9 ✓	QC	80			
F707292-MSD1 ✓	QC	81			
F707292-DUP2 ✓	QC	82			
7G19020-CCVA ✓	QC	83	1703679	✓	
7G19020-CCBA ✓	QC	84			

[Signature] 7/19/17
 Samples Loaded By Date

[Signature] 7/19/17
 Data Processed By Date

107402
 7/19/17

PREPARATION BENCH SHEET

F707254

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 7/14/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707254-BLK1	Blank	0.4	40					
F707254-BLK2	Blank	0.4	40					
F707254-BLK3	Blank	0.4	40					
F707254-BS1	LCS	0.4	40	1701763	40			
F707254-BS2	LCS	0.4	40	1701763	40			
F707254-BSD1	LCS Dup	0.4	40	1701763	40			
F707254-BSD2	LCS Dup	0.4	40	1701763	40			
F707254-DUP1	Duplicate [1706563-01RE1] ✓	0.426	40					
F707254-DUP2	Duplicate [1706564-01]	0.418	40					
F707254-DUP3	Duplicate [1706563-01RE1] ✓	0.405 ✓	40					
F707254-DUP4	Duplicate [1706564-01]	0.451 ✓	40					
F707254-MS1	Matrix Spike [1706563-01RE1] ✓	0.0253125	2.5	1702557 ✓	100 ✓			[Spk] 0.405g->40mL; 40mL->40mL; Spiked 2.5mL
F707254-MS2	Matrix Spike [1706564-01] ✓	0.011275	1	1702556 ✓	50 ✓			[Spk] 0.451g->40mL; 40mL->40mL; Spiked 1mL
F707254-MSD1	Matrix Spike Dup [1706563-01RE1] ✓	0.0253125	2.5	1702557 ✓	100 ✓			[Spk] 0.405g->40mL; 40mL->40mL; Spiked 2.5mL
F707254-MSD2	Matrix Spike Dup [1706564-01] ✓	0.011275	1	1702556 ✓	50 ✓			[Spk] 0.451g->40mL; 40mL->40mL; Spiked 1mL

<u>Standard ID(s):</u>	<u>Description:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard
1702556	THg 10ng/mL Calibration Standard
1702557	THg 1ng/mL Calibration Standard

<u>Expiration:</u>
22-Sep-17 00:00
26-Jul-17 00:00
26-Jul-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
1703702	THg Dilute 1% BrCl	
1703831	Omnitrace Hydrochloric Acid	26-Jun-20 00:00
1703832	Fisher Nitric Acid, Tracemetal Grade	27-Jan-19 00:00
1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
1704273	5% BrCl	18-Dec-17 00:00

PREPARATION BENCH SHEET

F707254

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 7/14/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706563-01	BG05SB06-S-0.00-170613Hg	0.405	40	QC	-	-	MS/MSD	
1706563-01RE1	BG05SB06-S-0.00-170613Hg	0.405	40	QC	-	-	MS/MSD Added 7/19/2017 by BC	Added 7/19/2017 by BC
1706563-04	BG05SB10-SD-0.00-170613Hg	0.404	40	-	-	-		
1706563-05	BG05SB10-S-0.00-170613Hg	0.427	40	-	-	-		
1706564-01	BG02SB01-S-0.00-170615Hg	0.451	40	QC	-	-	MS/MSD	
1706564-05	BG02SB05-S-0.00-170615Hg	0.467	40	-	-	-		
1706564-08	BG02SB09-S-0.00-170616Hg	0.413	40	-	-	-		
1706565-01	BG03SB01-S-0.00-170612Hg	0.447	40	-	-	-		
1706565-04	BG03SB05-S-0.00-170612Hg	0.422	40	-	-	-		
1706565-07	BG03SB07-S-0.00-170612Hg	0.41	40	-	-	-		
1706565-10	BG04SB08-S-0.00-170612Hg	0.416	40	-	-	-		
1706565-13	BG05SB02-S-0.00-170612Hg	0.45	40	-	-	-		
1706565-16	UDPSB-05-S-0.00-170612Hg	0.415	40	-	-	-		
1706565-19	UDPSB-07-S-0.00-170612Hg	0.41	40	-	-	-		
1706565-25	UDPSB-11-S-0.00-170612Hg	0.424	40	-	-	-		
1706565-29	HgO for First SSE Batch	0.442	40	-	-	-	These are CRMs, Not used in F0 analys	
1706565-30	HgS for First SSE Batch	0.44	40	-	-	-	These are CRMs, Not used in F0 analys	
1706565-31	Hg2Cl2 for First SSE Batch	0.464	40	-	-	-	These are CRMs, Not used in F0 analys	

PREPARATION BENCH SHEET

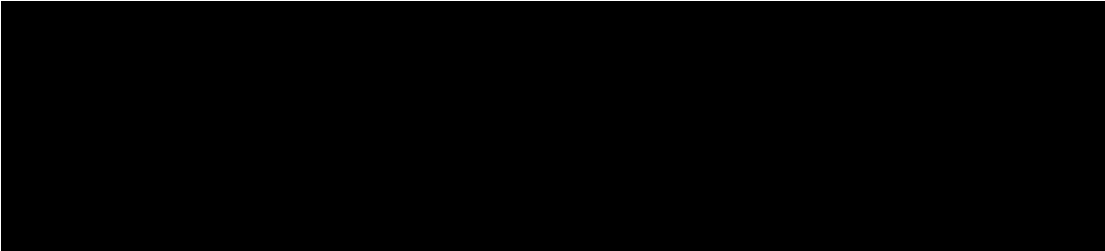
F707254

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 7/14/2017



Due Date: 7/18/2017

BC 2600-2
7/19/17

PREPARATION BENCH SHEET

F707254

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 7/3/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707254-BLK1	Blank	0.46	40					20X
F707254-BLK2	Blank	0.414	40					20X
F707254-BLK3	Blank	0.407	40					20X
F707254-BS1	LCS	0.4083	40	1701763	40			20X
F707254-BSD1	LCS Dup	0.4181	40	1701763	40			20X
F707254-DUP1	Duplicate [1706563-01] RE1	0.426	40					20X
F707254-DUP2	Duplicate [1706564-01]	0.418	40					20X
F707254-MS1	Matrix Spike 1706563-01 RE1	0.4	40	1702557	50			20X
F707254-MSD1	Matrix Spike Dup 1706563-01 RE1	0.4	40	1702556	50			20X

<u>Standard ID(s):</u> 1701763	<u>Description:</u> THg 1,000ng/mL Secondary Spiking Standard	<u>Expiration:</u> 22-Sep-17 00:00	<u>Reagent ID(s):</u> 1702551 1703831 1703832 1704273	<u>Description:</u> Boiling Chips for AFS prep Omnitrace Hydrochloric Acid Fisher Nitric Acid, Tracemetal Grade 5% BrCl	<u>Expiration:</u> 31-Dec-17 00:00 26-Jun-20 00:00 27-Jan-19 00:00 18-Dec-17 00:00
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BS2 rerun BS1 100X
BSD2 rerun BSD1 100X

MS2 1706564-01 50 1702556 50X
MSD2 1706564-01 50 1702556 50X
DUP 3 (AD) 1706563-01/RE1 20X
DUP 4 1706563-01 50X

1703702
1703701
1704095
1703182

Due Date: 7/18/2017

PREPARATION BENCH SHEET

2600-2
Bc 7/19/17

F707254

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 7/3/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706563-01	BG05SB06-S-0.00-170613Hg	0.405	40	QC	-	-	MS/MSD 50X → 20X	
1706563-04	BG05SB10-SD-0.00-170613Hg	0.404	40	-	-	-	50X	
1706563-05	BG05SB10-S-0.00-170613Hg	0.427	40	-	-	-	50X 20X	
1706564-01	BG02SB01-S-0.00-170615Hg	0.451	40	QC	-	-	MS/MSD 50X	
1706564-05	BG02SB05-S-0.00-170615Hg	0.467	40	-	-	-	20X	
1706564-08	BG02SB09-S-0.00-170616Hg	0.413	40	-	-	-	20X	
1706565-01	BG03SB01-S-0.00-170612Hg	0.447	40	-	-	-	20X	
1706565-04	BG03SB05-S-0.00-170612Hg	0.422	40	-	-	-	20X	
1706565-07	BG03SB07-S-0.00-170612Hg	0.41	40	-	-	-	20X	
1706565-10	BG04SB08-S-0.00-170612Hg	0.416	40	-	-	-	20X	
1706565-13	BG05SB02-S-0.00-170612Hg	0.45	40	-	-	-	20X	
1706565-16	UDPSB-05-S-0.00-170612Hg	0.415	40	-	-	-	20X	
1706565-19	UDPSB-07-S-0.00-170612Hg	0.41	40	-	-	-	20X	
1706565-25	UDPSB-11-S-0.00-170612Hg	0.424	40	-	-	-	20X 20X	
1706565-29	HgO for First SSE Batch	0.442	40	-	-	-	These are CRMs, Not used in F0 analys	5000X
1706565-30	HgS for First SSE Batch	0.44	40	-	-	-	These are CRMs, Not used in F0 analys	5000X 50000X
1706565-31	Hg2Cl2 for First SSE Batch	0.464	40	-	-	-	These are CRMs, Not used in F0 analys	5000X

PREPARATION BENCH SHEET

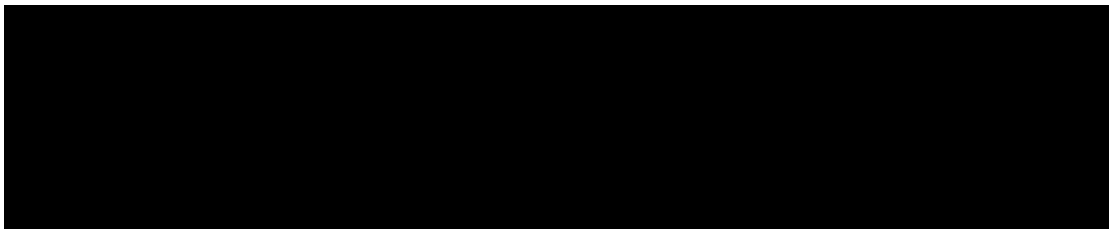
F707254

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 7/3/2017



Due Date: 7/18/2017

Technician: WF Batch#: F707250 (F) Date: 7/10/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: SSE F₁, F₂, F₃, F₄, F₅ Vial Type: Glass Teflon
 Balance#: 6 Calibrated? Yes No Therm.#: N/A Calibrated? Yes No

*Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C

*Time in can't begin before target temperature is reached
 Final vol.: 40 mL (LIMS ID: 1704273) Spike vol.: 40 µL (LIMS ID: 1701763)
 Spike Witness: AMB 7-14-17 (initial and date) Dispenser: 150402663 Yes

HCl LIMS ID: 170383 Pipette SN#: MULL61A Calibration Date: 7/14/17
 HNO₃ LIMS ID: 1703832 Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: SSE #2: 1703672, 1704213 Dispenser #: 09N 52469 Calibrated? Yes No
 Other Acid LIMS ID: KOH = 1703705, 1704321, 1704234 Dispenser #: 0842283 Calibration: N/A
 Glass Vial # 08306 Boiling Chip lot # 1702551 *Hotblock Position: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F707250 - BLU1	0.460	23			H ₂ O - 1605057
2	F707250 - BLU2	0.414	24			HgS - 1605058
3	F707250 - BLU3	0.407	25			Hg2Cl2 - 1605056
4	1706563 - 01	0.405	26			Comments
5	F707250 - DUP1	0.426	27			F707250 - DUP1
6	1706563 - 04	0.404	28			source = 1706563-01
7	1706563 - 05	0.427	29			F707250 - DUP2
8	1706564 - 01	0.451	30			source = 1706564-01
9	F707250 - DUP2	0.418	31			F ₁ = F707250
10	1706564 - 05	0.467	32			Brcl: 1703700
11	1706564 - 08	0.413	33			Pipette: J047631
12	1706565 - 01	0.447	34			vol added: 1.25ml
13	1706565 - 04	0.422	35			F ₂ = F707250
14	1706565 - 07	0.410	36			Brcl: 1703700
15	1706565 - 10	0.416	37			Pipette: J047631
16	1706565 - 13	0.450	38			vol added: 1.25ml
17	1706565 - 16	0.415	39			F ₃ = F707250
18	1706565 - 19	0.410	40			Brcl: 1703700
19	1706565 - 25	0.424	41			Pipette: J047631
20	1706565 - 29	0.442	42			vol added: 2.5 ml
21	1706565 - 30	0.440	43			F ₄ = F707250
22	1706565 - 31	0.464	44			Brcl: 1703700

PREPARATION BENCH SHEET

F707292

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 7/14/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707292-BLK1	Blank	0.4	40					
F707292-BLK2	Blank	0.4	40					
F707292-BLK3	Blank	0.4	40					
F707292-BS1	LCS	0.4	40	1701763	40			
F707292-BSD1	LCS Dup	0.4	40	1701763	40			
F707292-DUP1	Duplicate [1706565-22]	0.423	40					
F707292-DUP2	AD [1706565-22]	0.404	40					
F707292-MS1	Matrix Spike [1706565-22] ✓	0.02525	2.5	1702556	50 ✓			[Spk] 0.404g->40mL; 40mL->40mL; Spiked 2.5mL
F707292-MSD1	Matrix Spike Dup [1706565-22] ✓	0.02525	2.5	1702556	50			[Spk] 0.404g->40mL; 40mL->40mL; Spiked 2.5mL

<u>Standard ID(s):</u>	<u>Description:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard
1702556	THg 10ng/mL Calibration Standard

<u>Expiration:</u>
22-Sep-17 00:00
26-Jul-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
1703702	THg Dilute 1% BrCl	
1703831	Omnitrace Hydrochloric Acid	26-Jun-20 00:00
1703832	Fisher Nitric Acid, Tracemetal Grade	27-Jan-19 00:00
1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
1704273	5% BrCl	18-Dec-17 00:00

PREPARATION BENCH SHEET

F707292

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 7/14/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706565-17	UDPSB-05-S-0.50-170612Hg	0.405	40	-	-	-		
1706565-18	UDPSB-05-S-1.00-170612Hg	0.406	40	-	-	-		
1706565-20	UDPSB-07-S-0.50-170612Hg	0.423	40	-	-	-		
1706565-21	UDPSB-07-S-1.00-170612Hg	0.414	40	-	-	-		
1706565-22	UDPSB-10-S-0.00-170612Hg	0.404	40	QC	-	-	MS/MSD	
1706565-23	UDPSB-10-S-0.50-170612Hg	0.452	40	-	-	-		
1706565-24	UDPSB-10-S-1.00-170612Hg	0.416	40	-	-	-		
1706565-26	UDPSB-11-SD-0.50-170612Hg	0.424	40	-	-	-		
1706565-27	UDPSB-11-S-0.50-170612Hg	0.41	40	-	-	-		
1706565-28	UDPSB-11-S-1.00-170612Hg	0.403	40	-	-	-		
1706565-32	HgO for Second SSE Batch	0.442	40	-	-	-	These are CRMs, Not used in F0 analys	
1706565-33	HgS for Second SSE Batch	0.44	40	-	-	-	These are CRMs, Not used in F0 analys	
1706565-34	Hg2Cl2 for Second SSE Batch	0.464	40	-	-	-	These are CRMs, Not used in F0 analys	

BC 7/18/17
2600.2

PREPARATION BENCH SHEET

F707292

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 7/6/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707292-BLK1	Blank	0.46	40					20X -
F707292-BLK2	Blank	0.414	40					20X -
F707292-BLK3	Blank	0.407	40					20X -
F707292-BS1	LCS	0.4083	40	1701763	40			100X -
F707292-BSD1	LCS Dup	0.4181	40	1701763	40			100X -
F707292-DUP1	Duplicate [1706565-22]	0.423	40					20X -
F707292-MS1	Matrix Spike 1706565-22	0.4	40	1702556	50			20X -
F707292-MSD1	Matrix Spike Dup 1706565-22	0.4	40	1702556	50			20X -

<u>Standard ID(s):</u> 1701763	<u>Description:</u> THg 1,000ng/mL Secondary Spiking Standard	<u>Expiration:</u> 22-Sep-17 00:00	<u>Reagent ID(s):</u> 1702551 1703831 1703832 1704273	<u>Description:</u> Boiling Chips for AFS prep Omnitrace Hydrochloric Acid Fisher Nitric Acid, Tracemetal Grade 5% BrCl	<u>Expiration:</u> 31-Dec-17 00:00 26-Jun-20 00:00 27-Jan-19 00:00 18-Dec-17 00:00
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DUP 2 1706565-22 (AD) 20X

1703702
1703701
1704095
1703182

BL 7/18/17
2600-2

PREPARATION BENCH SHEET

F707292

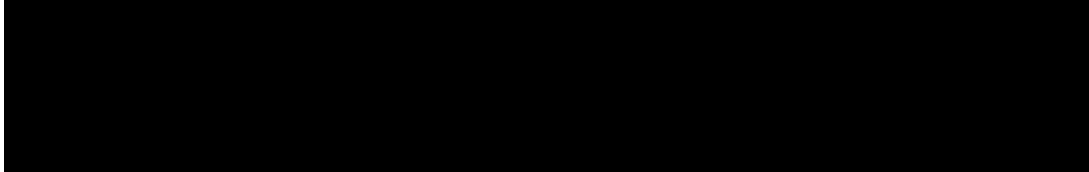
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 7/6/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706565-17	UDPSB-05-S-0.50-170612Hg	0.405	40	-	-	-	20x,	
1706565-18	UDPSB-05-S-1.00-170612Hg	0.406	40	-	-	-	20x,	
1706565-20	UDPSB-07-S-0.50-170612Hg	0.423	40	-	-	-	20x,	
1706565-21	UDPSB-07-S-1.00-170612Hg	0.414	40	-	-	-	20x,	
1706565-22	UDPSB-10-S-0.00-170612Hg	0.404	40	QC	-	-	MS/MSD 20x	
1706565-23	UDPSB-10-S-0.50-170612Hg	0.452	40	-	-	-	20x,	
1706565-24	UDPSB-10-S-1.00-170612Hg	0.416	40	-	-	-	20x,	
1706565-26	UDPSB-11-SD-0.50-170612Hg	0.424	40	-	-	-	20x,	
1706565-27	UDPSB-11-S-0.50-170612Hg	0.41	40	-	-	-	20x,	
1706565-28	UDPSB-11-S-1.00-170612Hg	0.403	40	-	-	-	20x,	
1706565-32	HgO for Second SSE Batch	0.442	40	-	-	-	These are CRMs, Not used in F0 analys	5000x -
1706565-33	HgS for Second SSE Batch	0.44	40	-	-	-	These are CRMs, Not used in F0 analys	50000x -
1706565-34	Hg2Cl2 for Second SSE Batch	0.464	40	-	-	-	These are CRMs, Not used in F0 analys	5000x -



Technician: wf

Batch#: F707288(F₁)

Date: 7/10/17 ^{wf}
7/11/17 ^{wf}

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: SSE F₁/F₂/F₃/F₄/F₅ Vial Type: Glass Teflon
 Balance#: 6 Calibrated? Yes No Therm.#: N/A Calibrated? Yes No

*Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C

Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C

*Time in can't begin before target temperature is reached

Final vol.: 40 mL (LIMS ID: 1704273) Spike vol.: 40 µL (LIMS ID: 1701763)

Spike Witness: AMB 7-11-17 (initial and date) Dispenser: 150402663 DJES

HCl LIMS ID: 1703831

Pipette SN#: MW11619 Calibration Date: 7/14/17

HNO₃ LIMS ID: 1703832

¹⁷⁰³⁸³² 12N HNO₃ Pipette SN#: N/A Calibration Date: N/A

70:30 LIMS ID: SSE #2: 1703678, 170428

Dispenser #: 00N52469 Calibrated? Yes No

Other Acid LIMS ID: 1703705, 1704239

Dispenser #: 0842283 Calibrated? Yes

Glass Vial # 08306

Boiling Chip lot # 1702951

*Hotblock Position: _____

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F707288 - Blk 1	0.460	23	<div style="border: 1px solid black; width: 100px; height: 100px; margin: auto; display: flex; align-items: center; justify-content: center;"> <div style="text-align: center;"> <p>wf</p> <p>7/10/17</p> </div> </div>	H ₂ O = 1606057	
2	F707288 - Blk 2	0.414	24		HgS = 1605058	
3	F707288 - Blk 3	0.407	25		HgCl ₂ = 1605056	
4	1706565 - 17	0.405	26		Comments	
5	F707288 - DUPL	0.423	27		F707288-DUPL	
6	1706565 - 18	0.406	28		source = 1706565-22	
7	1706565 - 20	0.423	29		F ₁ = F707288	
8	1706565 - 21	0.414	30		Brd: 1703700	
9	1706565 - 22	0.404	31		Pipette: J0H7631	
10	1706565 - 23	0.452	32		vol added: 1.25 ml	
11	1706565 - 24	0.416	33		F ₂ = F707289	
12	1706565 - 3226	0.424	34		Brd: 1703700	
13	1706565 - 3327	0.410	35		Pipette: J0H7631	
14	1706565 - 3428	0.403	36		vol added: 1.25 ml	
15	1706565 - 32	0.442	37		F ₃ = F707290	
16	1706565 - 33	0.440	38		Brd: 1703700	
17	1706565 - 34	0.464	39		Pipette: J0H7631	
18			40		vol added: 10.0 ml	
19			41		F ₄ = F707291	
20			42		Brd: 1703700	
21			43		Pipette: J0H7631	
22			44		vol added: 2.5 ml	
				F ₅ = F707292		
				5% BrCl LIMS: 1704273		
				13.1 weight: 0.4083		
				BSD1 weight: 0.4181		

Failing Data Report - 7G19020

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707254-BS1	Hg-CVAFS-S-SSE-F5	102.5	1.00			100.00	ng/g	102	77.00	123.00			FAIL-OVER	PASS-BS	E ✓
F707254-BSD1	Hg-CVAFS-S-SSE-F5	104.6	1.00	102.5		100.00	ng/g	105	77.00	123.00	2.04	25.00	FAIL-OVER	PASS-BSD	E ✓
F707254-DUP1	Hg-CVAFS-S-SSE-F5	2.78	1.15	1.75	1.75		ng/g				45.4	25.00	PASS-OVER	FAIL-DUP	QR-07 ✓

[Signature] 7/19/17
 Analyst Reviewed By Date

[Signature] 7/19/17
 Peer Reviewed By Date
a 7/19/17

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7G19019, 7G19020
Reviewer: 0 <i>R 7/19/17</i>	Dataset ID(s): THg26002-170718-1
Date: 7/19/2017	WO (s) #: Various
Batch #(s): F707331, F707326, F707254, F707292	0

Analyst Initials BC Reviewer Initials R 7/19/17

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: *BS/BSD off curve, Dups with failing RPDs*
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: _____
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
 (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
 (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7G19019, 7G19020
Reviewer: 0 <i>R 7/19/17</i>	Dataset ID(s): THg26002-170718-1
Date: 7/19/2017	WO (s) #: Various
Batch #(s): F707331, F707326, F707254, F707292	0

Analyst Initials BC **Reviewer Initials** R 7/19/17

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |

Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs

- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/27/2017 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 4/25/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 4/25/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1708118

PO#

C012505850

November 13, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1708118

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November 13, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OB-01_17HC001_072517_POL_01_WB	1708118-01	Tissue	25-Jul-17 16:00	03-Aug-17 09:40
OB-01_17HC001_072517_POL_02_WB	1708118-02	Tissue	25-Jul-17 16:05	03-Aug-17 09:40
OB-01_17HC001_072517_POL_03_WB	1708118-03	Tissue	25-Jul-17 16:10	03-Aug-17 09:40
OB-01_17HC001_072517_POL_04_WB	1708118-04	Tissue	25-Jul-17 16:15	03-Aug-17 09:40
OB-01_17HC001_072517_POL_05_WB	1708118-05	Tissue	25-Jul-17 16:20	03-Aug-17 09:40

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King**Reported:**
13-Nov-17 14:58**REVISED REPORT (11/13/17)**

Report was revised per client request. Client added Methyl Mercury analysis to all samples on 10/18/17.

REVISED REPORT (9/5/17)

Per client's request by email, the sampled time has been updated in the report.

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 8/3/2017 9:40:00 AM . The samples were received intact, on-ice within two sealed coolers at -49.8 and -48.8 degrees Celsius.

Client sent in an updated COC after the samples were received. Both versions of the COC are included in this final report.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches; F708302 and F708459. Sample 1708118-03 was used as the source QC for batch F708459. These were analyzed in sequences 7H10026 and 7H24011.

Samples were prepared and analyzed for methyl mercury by cold vapor gas chromatography atomic fluorescence spectrometry (CV-GC-AFS) in accordance with EPA 1630 (EFGS SOP2808).

Samples were prepped for Methyl Mercury in batch F710421. These were analyzed in two sequences; 7J22009 and 7J24016. Sample 1708118-01 was used as the source QC sample in batch F710421.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

EFGS Work Order: 1708118

Client: AmeC

Date & Time Received: 8/3/17 9:16

Date Labeled: 8/3/17 Labeled By: LM

Project: _____

Received By: CS

Label Verified By: Baw

of Coolers Received: 1 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y N Temp Blank Used: Y N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>Y</u>	

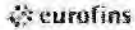
TID: <u>3150</u>	CF: <u>+0.2 °C</u>	Date/time: <u>8/3/17 9:40</u>	By: <u>CS</u>
Cooler 1: <u>-50 °C</u>	w/ CF: <u>-49.8°C</u>	Cooler 4: <u>°C</u>	w/ CF: <u>°C</u>
Cooler 2: <u>-49 °C</u>	w/ CF: <u>-48.8°C</u>	Cooler 5: <u>°C</u>	w/ CF: <u>°C</u>
Cooler 3: <u>°C</u>	w/ CF: <u>°C</u>	Cooler 6: <u>°C</u>	w/ CF: <u>°C</u>

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>NA</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>Y</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>NA</u>	

Anomalies/Non-conformances (attach additional pages if needed):

Environmental Analysis Request/Chain of Custody



Frontier Global Sciences

Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101				Matrix: <input type="checkbox"/> Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Analyses Requested						For Lab Use Only					
Project Name#: USDC Penobscot		PN #: 3616*6E052.04A.053		Ground <input type="checkbox"/> Surface <input type="checkbox"/>		Preservation Codes						SF #: _____					
Project Manager: Rod Pendleton		P.O. #:		Water <input type="checkbox"/> NPDES <input type="checkbox"/>								SCR #: _____					
Sampler: JB/DL		PWSID #:		Other: _____													
Phone #:		Quote #:		Total # of Containers								Preservation Codes					
State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Py 163 1v 2 v2 P Freeze								H = HCl T = Thiourea					
												N = HNO ₃ B = NaOH					
												S = H ₂ SO ₄ P = H ₂ PO ₄					
												O = Other					
												Remarks					
Sample Identification		Collection		Grab		Composite											
	Date	Time															
1	08-01_072517_POL_01_WB	7/25/2017	1000	X				X	X				5 grams				
2	08-01_072517_POL_02_WB	7/25/2017	1000	X				X	X				5 grams				
3	08-01_072517_POL_03_WB	7/25/2017	1000	X				X	X				5 grams				
4	08-01_072517_POL_04_WB	7/25/2017	1000	X				X	X				5 grams				
5	08-01_072517_POL_05_WB	7/25/2017	1000	X				X	X				5 grams				
6				X				X	X								
7				X				X	X								
8				X				X	X								
9				X				X	X								
10				X				X	X								
11				X				X	X								
12				X				X	X								
13				X				X	X								
14				X				X	X								
Turnaround Time Requested (TAT) (please check)				Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Relinquished by: <i>[Signature]</i>		Date: 8/2/2017		Time: 3:30pm		Received by: <i>[Signature]</i>		Date: 8/2/17		Time: 9:40	
Notes:						Relinquished by:		Date:		Time:		Received by:		Date:		Time:	
FedEx # _____						Relinquished by:		Date:		Time:		Received by:		Date:		Time:	
# of Coolers: 1						Relinquished by:		Date:		Time:		Received by:		Date:		Time:	
Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report						Relinquished by:		Date:		Time:		Received by:		Date:		Time:	
Report and EDD to: dennis.king@amecfdw.com / 978.692.6633						Relinquished by:		Date:		Time:		Received by:		Date:		Time:	
Data Package Options (please check if required)						Re-inquired by Commercial Carrier:											
High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>						UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other <input type="checkbox"/>										Temperature upon receipt: _____ °C	
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, format: _____																	

Eurofins Frontier Global Sciences • 11720 Northbrook Pkwy N, Suite 400, Dulles, VA 99011 • 425-686-1996

YJR
 -49.8°C
 FedEx
 9:40

8103 4444 8602
 8103 4444 8131

Environmental Analysis Request/Chain of Custody



Client: Amecc Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101				Matrix				Analyses Requested										For Lab Use Only			
Project Name/ #: USDC Penobscot		PN #: 3616166052.04A.053		<input type="checkbox"/> Tissue		<input type="checkbox"/> Ground		<input type="checkbox"/> Surface		Preservation Codes										SF #: _____	
Project Manager: Rod Pendleton		P.O. #:		<input type="checkbox"/> Sediment		<input type="checkbox"/> Potable		<input type="checkbox"/> NPDES												SCR #: _____	
Sampler: JB/DL		PWSID #:		<input type="checkbox"/> Soil		<input type="checkbox"/> Water		<input type="checkbox"/> Other:												Total # of Containers Hg 1631e 2 oz P Freeze	
Phone #:		Quote #:		<input type="checkbox"/> Composite																	
State where samples were collected: <u> ME </u>				For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																	
Collection																					
Sample Identification				Date		Time		Grab		Composite		Soil		Water		Other:		Total # of Containers		Remarks	
1		OB-01_17HC001_072517_POL_01_WB		7/25/2017		1600		X								X		1		5 grams	
2		OB-01_17HC001_072517_POL_02_WB		7/25/2017		1605		X								X		1		5 grams	
3		OB-01_17HC001_072517_POL_03_WB		7/25/2017		1610		X								X		1		5 grams	
4		OB-01_17HC001_072517_POL_04_WB		7/25/2017		1615		X								X		1		5 grams	
5		OB-01_17HC001_072517_POL_05_WB		7/25/2017		1620		X								X		1		5 grams	
6								X								X		1			
7								X								X		1			
8								X								X		1			
9								X								X		1			
10								X								X		1			
11								X								X		1			
12								X								X		1			
13								X								X		1			
14								X								X		1			
Turnaround Time Requested (TAT) (please check):				Standard <input checked="" type="checkbox"/>		Rush <input type="checkbox"/>		Relinquished by:		Date		Time		Received by:		Date		Time			
(Rush TAT is subject to laboratory approval and surcharges.)								Relinquished by:		Date		Time		Received by:		Date		Time			
Notes:								Relinquished by:		Date		Time		Received by:		Date		Time			
FedEx # <u> 8044448598 </u>				# of Coolers <u> 1 </u>				Relinquished by:		Date		Time		Received by:		Date		Time			
Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report				Report and EDD to: denise.king@amecfcw.com / 978-692-6633				Relinquished by:		Date		Time		Received by:		Date		Time			
Data Package Options (please check if required)				High <input type="checkbox"/>		Standard <input checked="" type="checkbox"/>		Relinquished by Commercial Carrier:		Date		Time		Received by:		Date		Time			
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				If yes, format: _____				UPS _____ FedEx _____ Other _____		Date		Time		Received by:		Date		Time			
																		Temperature upon receipt _____ °C			



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: WO-04A-050 Project Manager: Denise King	Reported: 13-Nov-17 14:58
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OB-01_17HC001_072517_POL_01_WB
1708118-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion

Methyl Mercury (as Mercury)	9.9	0.5	2.0	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
-----------------------------	-----	-----	-----	------	-----	---------	-----------	---------	-----------	-------------------------	--

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	30.5	0.401	3.58	ng/g	100	F708302	04-Aug-17	7H10026	10-Aug-17	EPA 1631B	
---------	------	-------	------	------	-----	---------	-----------	---------	-----------	-----------	--

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

OB-01_17HC001_072517_POL_02_WB
1708118-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	7.5	0.5	1.9	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	30.6	0.425	3.80	ng/g	100	F708302	04-Aug-17	7H10026	10-Aug-17	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

OB-01_17HC001_072517_POL_03_WB
1708118-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	12.7	0.4	1.7	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	32.0	0.378	3.38	ng/g	100	F708302	04-Aug-17	7H10026	10-Aug-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

OB-01_17HC001_072517_POL_04_WB
1708118-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	10.4	0.5	2.0	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	35.8	0.448	4.00	ng/g	100	F708302	04-Aug-17	7H10026	10-Aug-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

OB-01_17HC001_072517_POL_05_WB
1708118-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	12.3	0.5	1.9	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	29.5	0.386	3.45	ng/g	100	F708302	04-Aug-17	7H10026	10-Aug-17	EPA 1631B	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: WO-04A-050 Project Manager: Denise King	Reported: 13-Nov-17 14:58
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7H10026 - F708302											
Cal Standard (7H10026-CAL1)					Prepared & Analyzed: 10-Aug-17						
Mercury	0.520	-		ng/L	0.50100		104				
Cal Standard (7H10026-CAL2)					Prepared & Analyzed: 10-Aug-17						
Mercury	1.020	-		ng/L	1.0020		102				
Cal Standard (7H10026-CAL3)					Prepared & Analyzed: 10-Aug-17						
Mercury	4.970	-		ng/L	5.0100		99.2				
Cal Standard (7H10026-CAL4)					Prepared & Analyzed: 10-Aug-17						
Mercury	19.56	-		ng/L	20.040		97.6				
Cal Standard (7H10026-CAL5)					Prepared & Analyzed: 10-Aug-17						
Mercury	38.70	-		ng/L	40.080		96.5				
Calibration Blank (7H10026-CCB1)					Prepared & Analyzed: 10-Aug-17						
Mercury	0.022	-		ng/L							
Calibration Blank (7H10026-CCB2)					Prepared & Analyzed: 10-Aug-17						
Mercury	0.00009	-		ng/L							
Calibration Blank (7H10026-CCB3)					Prepared & Analyzed: 10-Aug-17						
Mercury	0.045	-		ng/L							
Calibration Blank (7H10026-CCB4)					Prepared & Analyzed: 10-Aug-17						
Mercury	0.089	-		ng/L							
Calibration Blank (7H10026-CCB5)					Prepared & Analyzed: 10-Aug-17						
Mercury	0.055	-		ng/L							

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7H10026 - F708302											
Calibration Blank (7H10026-CCB6) Prepared & Analyzed: 10-Aug-17											
Mercury	0.110	-		ng/L							
Calibration Blank (7H10026-CCB7) Prepared & Analyzed: 10-Aug-17											
Mercury	0.091	-		ng/L							
Calibration Check (7H10026-CCV1) Prepared & Analyzed: 10-Aug-17											
Mercury	4.961	-		ng/L	5.0000		99.2	77-123			
Calibration Check (7H10026-CCV2) Prepared & Analyzed: 10-Aug-17											
Mercury	4.955	-		ng/L	5.0000		99.1	77-123			
Calibration Check (7H10026-CCV3) Prepared & Analyzed: 10-Aug-17											
Mercury	4.992	-		ng/L	5.0000		99.8	77-123			
Calibration Check (7H10026-CCV4) Prepared & Analyzed: 10-Aug-17											
Mercury	4.886	-		ng/L	5.0000		97.7	77-123			
Calibration Check (7H10026-CCV5) Prepared & Analyzed: 10-Aug-17											
Mercury	5.032	-		ng/L	5.0000		101	77-123			
Calibration Check (7H10026-CCV6) Prepared & Analyzed: 10-Aug-17											
Mercury	5.100	-		ng/L	5.0000		102	77-123			
Calibration Check (7H10026-CCV7) Prepared & Analyzed: 10-Aug-17											
Mercury	5.133	-		ng/L	5.0000		103	77-123			
Instrument Blank (7H10026-IBL1) Prepared & Analyzed: 10-Aug-17											
Mercury	ND	0.004	0.040	ng/L							U

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7H10026 - F708302

Instrument Blank (7H10026-IBL2)												Prepared & Analyzed: 10-Aug-17	
Mercury	ND	0.004	0.040	ng/L								U	
Instrument Blank (7H10026-IBL3)												Prepared & Analyzed: 10-Aug-17	
Mercury	ND	0.004	0.040	ng/L								U	
Initial Cal Check (7H10026-ICV1)												Prepared & Analyzed: 10-Aug-17	
Mercury	4.972	-		ng/L	5.0000		99.4	79-121					

Batch 7H24011 - F708459

Cal Standard (7H24011-CAL1)												Prepared & Analyzed: 23-Aug-17	
Mercury	0.513	-		ng/L	0.50100		102						
Cal Standard (7H24011-CAL2)												Prepared & Analyzed: 23-Aug-17	
Mercury	1.004	-		ng/L	1.0020		100						
Cal Standard (7H24011-CAL3)												Prepared & Analyzed: 23-Aug-17	
Mercury	5.024	-		ng/L	5.0100		100						
Cal Standard (7H24011-CAL4)												Prepared & Analyzed: 23-Aug-17	
Mercury	19.90	-		ng/L	20.040		99.3						
Cal Standard (7H24011-CAL5)												Prepared & Analyzed: 23-Aug-17	
Mercury	38.81	-		ng/L	40.080		96.8						
Calibration Blank (7H24011-CCB1)												Prepared & Analyzed: 23-Aug-17	
Mercury	0.039	-		ng/L									

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7H24011 - F708459											
Calibration Blank (7H24011-CCB2) Prepared & Analyzed: 23-Aug-17											
Mercury	0.053	-		ng/L							
Calibration Blank (7H24011-CCB3) Prepared & Analyzed: 23-Aug-17											
Mercury	0.038	-		ng/L							
Calibration Blank (7H24011-CCB4) Prepared & Analyzed: 23-Aug-17											
Mercury	0.071	-		ng/L							
Calibration Blank (7H24011-CCB5) Prepared & Analyzed: 23-Aug-17											
Mercury	0.073	-		ng/L							
Calibration Blank (7H24011-CCB6) Prepared & Analyzed: 23-Aug-17											
Mercury	0.047	-		ng/L							
Calibration Blank (7H24011-CCB7) Prepared & Analyzed: 23-Aug-17											
Mercury	0.042	-		ng/L							
Calibration Blank (7H24011-CCB8) Prepared & Analyzed: 23-Aug-17											
Mercury	0.073	-		ng/L							
Calibration Blank (7H24011-CCB9) Prepared & Analyzed: 23-Aug-17											
Mercury	0.043	-		ng/L							
Calibration Check (7H24011-CCV1) Prepared & Analyzed: 23-Aug-17											
Mercury	5.030	-		ng/L	5.0000		101	77-123			
Calibration Check (7H24011-CCV2) Prepared & Analyzed: 23-Aug-17											
Mercury	4.957	-		ng/L	5.0000		99.1	77-123			

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7H24011 - F708459

Calibration Check (7H24011-CCV3)											
Prepared & Analyzed: 23-Aug-17											
Mercury	4.912	-		ng/L	5.0000		98.2	77-123			
Calibration Check (7H24011-CCV4)											
Prepared & Analyzed: 23-Aug-17											
Mercury	5.060	-		ng/L	5.0000		101	77-123			
Calibration Check (7H24011-CCV5)											
Prepared & Analyzed: 23-Aug-17											
Mercury	5.064	-		ng/L	5.0000		101	77-123			
Calibration Check (7H24011-CCV6)											
Prepared & Analyzed: 23-Aug-17											
Mercury	5.008	-		ng/L	5.0000		100	77-123			
Calibration Check (7H24011-CCV7)											
Prepared & Analyzed: 23-Aug-17											
Mercury	4.964	-		ng/L	5.0000		99.3	77-123			
Calibration Check (7H24011-CCV8)											
Prepared & Analyzed: 23-Aug-17											
Mercury	4.922	-		ng/L	5.0000		98.4	77-123			
Calibration Check (7H24011-CCV9)											
Prepared & Analyzed: 23-Aug-17											
Mercury	5.185	-		ng/L	5.0000		104	77-123			
Instrument Blank (7H24011-IBL1)											
Prepared & Analyzed: 23-Aug-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7H24011-IBL2)											
Prepared & Analyzed: 23-Aug-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7H24011-IBL3)											
Prepared & Analyzed: 23-Aug-17											
Mercury	ND	0.004	0.040	ng/L							U

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7H24011 - F708459

Initial Cal Check (7H24011-ICV1)

Prepared & Analyzed: 23-Aug-17

Mercury	4.956	-		ng/L	5.0000		99.1	79-121			
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Batch 7J22009 - F710421

Cal Standard (7J22009-CAL1)

Prepared & Analyzed: 20-Oct-17

Methyl Mercury (as Mercury)	0.04	-		ng/L	0.050050		88.9				
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Cal Standard (7J22009-CAL2)

Prepared & Analyzed: 20-Oct-17

Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		95.8				
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Cal Standard (7J22009-CAL3)

Prepared & Analyzed: 20-Oct-17

Methyl Mercury (as Mercury)	1.1	-		ng/L	1.0010		108				
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Cal Standard (7J22009-CAL4)

Prepared & Analyzed: 20-Oct-17

Methyl Mercury (as Mercury)	2.0	-		ng/L	2.0020		99.6				
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Cal Standard (7J22009-CAL5)

Prepared & Analyzed: 20-Oct-17

Methyl Mercury (as Mercury)	4.3	-		ng/L	4.0040		107				
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Calibration Blank (7J22009-CCB1)

Prepared & Analyzed: 20-Oct-17

Methyl Mercury (as Mercury)	0.003	-		ng/L							
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Calibration Blank (7J22009-CCB2)

Prepared & Analyzed: 20-Oct-17

Methyl Mercury (as Mercury)	0.0	-		ng/L							U
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Calibration Blank (7J22009-CCB3)

Prepared & Analyzed: 20-Oct-17

Methyl Mercury (as Mercury)	0.002	-		ng/L							
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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J22009 - F710421

Calibration Blank (7J22009-CCB4)											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.002	-		ng/L							
Calibration Blank (7J22009-CCB5)											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
Calibration Blank (7J22009-CCB6)											
Prepared: 20-Oct-17 Analyzed: 21-Oct-17											
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
Calibration Blank (7J22009-CCB7)											
Prepared: 20-Oct-17 Analyzed: 21-Oct-17											
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
Calibration Check (7J22009-CCV1)											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.4	67-133			
Calibration Check (7J22009-CCV2)											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.6	67-133			
Calibration Check (7J22009-CCV3)											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	67-133			
Calibration Check (7J22009-CCV4)											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		95.1	67-133			
Calibration Check (7J22009-CCV5)											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		97.8	67-133			
Calibration Check (7J22009-CCV6)											
Prepared: 20-Oct-17 Analyzed: 21-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		90.0	67-133			

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: WO-04A-050 Project Manager: Denise King	Reported: 13-Nov-17 14:58
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J22009 - F710421

Calibration Check (7J22009-CCV7)					Prepared: 20-Oct-17 Analyzed: 21-Oct-17						
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		86.6	67-133			
Instrument Blank (7J22009-IBL1)					Prepared & Analyzed: 20-Oct-17						
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U
Initial Cal Blank (7J22009-ICB1)					Prepared & Analyzed: 20-Oct-17						
Methyl Mercury (as Mercury)	0.006	-		ng/L							
Initial Cal Check (7J22009-ICV1)					Prepared & Analyzed: 20-Oct-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	69-131			

Batch 7J24016 - F710422

Cal Standard (7J24016-CAL1)					Prepared & Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	0.04	-		ng/L	0.050050		84.8				
Cal Standard (7J24016-CAL2)					Prepared & Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		91.3				
Cal Standard (7J24016-CAL3)					Prepared & Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	1.2	-		ng/L	1.0010		115				
Cal Standard (7J24016-CAL4)					Prepared & Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	2.0	-		ng/L	2.0020		101				
Cal Standard (7J24016-CAL5)					Prepared & Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	4.3	-		ng/L	4.0040		108				

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J24016 - F710422

Calibration Blank (7J24016-CCB1)											
Prepared & Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
Calibration Blank (7J24016-CCB2)											
Prepared & Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	0.003	-		ng/L							
Calibration Blank (7J24016-CCB3)											
Prepared & Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
Calibration Blank (7J24016-CCB4)											
Prepared & Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
Calibration Blank (7J24016-CCB5)											
Prepared & Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
Calibration Blank (7J24016-CCB6)											
Prepared & Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
Calibration Check (7J24016-CCV1)											
Prepared & Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		96.5	67-133			
Calibration Check (7J24016-CCV2)											
Prepared & Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		87.4	67-133			
Calibration Check (7J24016-CCV3)											
Prepared & Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.1	67-133			
Calibration Check (7J24016-CCV4)											
Prepared & Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		96.6	67-133			

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J24016 - F710422

Calibration Check (7J24016-CCV5)

Prepared & Analyzed: 23-Oct-17

Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	67-133			
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Calibration Check (7J24016-CCV6)

Prepared & Analyzed: 23-Oct-17

Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	67-133			
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Instrument Blank (7J24016-IBL1)

Prepared & Analyzed: 23-Oct-17

Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U
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Initial Cal Blank (7J24016-ICB1)

Prepared & Analyzed: 23-Oct-17

Methyl Mercury (as Mercury)	0.003	-		ng/L							
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Initial Cal Check (7J24016-ICV1)

Prepared & Analyzed: 23-Oct-17

Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	69-131			
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Batch F708302 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F708302-BLK1)

Prepared: 04-Aug-17 Analyzed: 10-Aug-17

Mercury	0.131	0.090	0.800	ng/g							J
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Blank (F708302-BLK2)

Prepared: 04-Aug-17 Analyzed: 10-Aug-17

Mercury	ND	0.090	0.800	ng/g							U
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Blank (F708302-BLK3)

Prepared: 04-Aug-17 Analyzed: 10-Aug-17

Mercury	ND	0.090	0.800	ng/g							U
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Blank (F708302-BLK4)

Prepared: 04-Aug-17 Analyzed: 10-Aug-17

Mercury	ND	0.082	0.730	ng/g							FB, U
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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F708302 - EFGS-011 Nitric/Sulfuric Hg Digestion

LCS (F708302-BS1)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	6.643	0.082	0.728	ng/g	7.2926		91.1	75-125			
LCS (F708302-BS2)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	322.1	3.34	29.8	ng/g	382.50		84.2	75-125			
LCS Dup (F708302-BSD1)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	6.833	0.079	0.702	ng/g	7.0316		97.2	75-125	6.47	24	
Duplicate (F708302-DUP2)					Source: 1708120-01		Prepared: 04-Aug-17 Analyzed: 10-Aug-17				
Mercury	304.9	1.55	13.9	ng/g		320.0			4.84	24	
Matrix Spike (F708302-MS2)					Source: 1708120-02		Prepared: 04-Aug-17 Analyzed: 10-Aug-17				
Mercury	508.4	1.53	13.7	ng/g	342.23	175.8	97.2	71-125			
Matrix Spike (F708302-MS3)					Source: 1708120-01		Prepared: 04-Aug-17 Analyzed: 10-Aug-17				
Mercury	624.4	1.56	14.0	ng/g	348.80	320.0	87.3	71-125			
Matrix Spike Dup (F708302-MSD2)					Source: 1708120-02		Prepared: 04-Aug-17 Analyzed: 10-Aug-17				
Mercury	518.7	1.63	14.5	ng/g	363.37	175.8	94.3	71-125	2.95	24	
Matrix Spike Dup (F708302-MSD3)					Source: 1708120-01		Prepared: 04-Aug-17 Analyzed: 10-Aug-17				
Mercury	661.1	1.75	15.7	ng/g	391.39	320.0	87.2	71-125	0.135	24	

Batch F708459 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F708459-BLK1)					Prepared: 17-Aug-17 Analyzed: 23-Aug-17						
Mercury	ND	0.090	0.800	ng/g							U

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F708459 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F708459-BLK2) Prepared: 17-Aug-17 Analyzed: 23-Aug-17											
Mercury	0.102	0.090	0.800	ng/g							J
Blank (F708459-BLK3) Prepared: 17-Aug-17 Analyzed: 23-Aug-17											
Mercury	ND	0.090	0.800	ng/g							U
Blank (F708459-BLK4) Prepared: 17-Aug-17 Analyzed: 23-Aug-17											
Mercury	ND	0.081	0.726	ng/g							F-03, U
Blank (F708459-BLK5) Prepared: 17-Aug-17 Analyzed: 23-Aug-17											
Mercury	ND	0.089	0.794	ng/g							F-03, U
LCS (F708459-BS1) Prepared: 17-Aug-17 Analyzed: 23-Aug-17											
Mercury	8.108	0.090	0.800	ng/g	8.0160		101	75-125			
LCS (F708459-BS2) Prepared: 17-Aug-17 Analyzed: 23-Aug-17											
Mercury	320.9	3.39	30.2	ng/g	382.50		83.9	75-125			
LCS Dup (F708459-BSD1) Prepared: 17-Aug-17 Analyzed: 23-Aug-17											
Mercury	7.464	0.090	0.800	ng/g	8.0160		93.1	75-125	8.28	24	
Duplicate (F708459-DUP1) Source: 1708118-03RE2 Prepared: 17-Aug-17 Analyzed: 23-Aug-17											
Mercury	30.81	0.446	3.98	ng/g		29.79			3.35	24	
Matrix Spike (F708459-MS1) Source: 1708118-03RE2 Prepared: 17-Aug-17 Analyzed: 23-Aug-17											
Mercury	376.4	1.74	15.5	ng/g	387.60	29.79	89.4	71-125			
Matrix Spike (F708459-MS2) Source: 1708241-01 Prepared: 17-Aug-17 Analyzed: 23-Aug-17											
Mercury	339.4	1.65	14.7	ng/g	368.05	10.27	89.4	71-125			

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: WO-04A-050 Project Manager: Denise King	Reported: 13-Nov-17 14:58
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F708459 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F708459-MSD1)		Source: 1708118-03RE2		Prepared: 17-Aug-17 Analyzed: 23-Aug-17							
Mercury	361.7	1.71	15.2	ng/g	381.10	29.79	87.1	71-125	2.63	24	
Matrix Spike Dup (F708459-MSD2)		Source: 1708241-01		Prepared: 17-Aug-17 Analyzed: 23-Aug-17							
Mercury	354.1	1.76	15.7	ng/g	393.08	10.27	87.5	71-125	2.22	24	

Batch F710421 - EFGS-010 KOH/Methanol Hg Digestion

Blank (F710421-BLK8)		Prepared: 19-Oct-17 Analyzed: 23-Oct-17									
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
Blank (F710421-BLK9)		Prepared: 19-Oct-17 Analyzed: 23-Oct-17									
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
Blank (F710421-BLKA)		Prepared: 19-Oct-17 Analyzed: 23-Oct-17									
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
Blank (F710421-BLKB)		Prepared: 19-Oct-17 Analyzed: 23-Oct-17									
Methyl Mercury (as Mercury)	ND	0.4	1.8	ng/g							F-03, U
Blank (F710421-BLKC)		Prepared: 19-Oct-17 Analyzed: 23-Oct-17									
Methyl Mercury (as Mercury)	ND	0.5	1.9	ng/g							F-03, U
Blank (F710421-BLKD)		Prepared: 19-Oct-17 Analyzed: 23-Oct-17									
Methyl Mercury (as Mercury)	ND	0.4	1.8	ng/g							F-03, U
Blank (F710421-BLKE)		Prepared: 19-Oct-17 Analyzed: 23-Oct-17									
Methyl Mercury (as Mercury)	ND	0.5	1.8	ng/g							F-03, U



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710421 - EFGS-010 KOH/Methanol Hg Digestion

LCS (F710421-BS3)					Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	281.7	2.0	7.9	ng/g	322.00		87.5	70-130			
LCS Dup (F710421-BS3)					Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	281.2	2.0	7.8	ng/g	322.00		87.3	70-130	0.189	25	
Duplicate (F710421-DUP2)					Source: 1708118-01RE1 Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	9.5	0.5	1.9	ng/g		9.9			3.87	35	
Matrix Spike (F710421-MS3)					Source: 1708118-01RE1 Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	52.4	0.5	1.9	ng/g	38.206	9.9	111	65-130			
Matrix Spike (F710421-MS4)					Source: 1708241-01RE1 Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	47.9	0.5	1.8	ng/g	36.400	6.2	115	65-130			
Matrix Spike Dup (F710421-MSD3)					Source: 1708118-01RE1 Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	51.7	0.5	2.0	ng/g	39.102	9.9	107	65-130	3.78	35	
Matrix Spike Dup (F710421-MSD4)					Source: 1708241-01RE1 Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	49.1	0.5	1.9	ng/g	37.774	6.2	114	65-130	0.794	35	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 14:58

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- FB This blank is a filtration blank. Data is reported for informational purposes only.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Analysis Datasheet for Total Mercury

Date of Analysis: August 10, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7H10026, 7H10027

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	66.35 units	132.70	59.69 units	119.38	104.0 %Rec
SEQ-CAL2	1	1.00 ng/L	123.73 units	123.73	117.07 units	117.07	102.0 %Rec
SEQ-CAL3	1	5.00 ng/L	577.00 units	115.40	570.34 units	114.07	99.4 %Rec
SEQ-CAL4	1	20.00 ng/L	2250.90 units	112.55	2244.24 units	112.21	97.8 %Rec
SEQ-CAL5	1	40.00 ng/L	4446.82 units	111.17	4440.16 units	111.00	96.7 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
114.75	+/- 3.46	3.0% RSD	119.11

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-TBL	3	6.66 units	+1.46	0.06 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	2	0.600 ng/L	±0.409
BLK	2	3	1.130 ng/L	±0.450
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE

PEER-REVIEWED

 INITIALS: on 8/11/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	SAM	F708302-B82	400	8/10/2017 11:50:55	72970-1.RAW	11:50:55 AM	827.37	2		620.7	5.407	2162.625	ng/L	
Hg2600-3	BC	SAM	1708004-01	100	8/10/2017 11:55:03	72971-1.RAW	11:55:03 AM	1141.66	2		1135.0	9.880	988.001	ng/L	
Hg2600-3	BC	SAM	1708118-01	400	8/10/2017 11:59:12	72972-1.RAW	11:59:12 AM	138.66	2		131.9	1.147	458.665	ng/L	
Hg2600-3	BC	SAM	1708118-02	400	8/10/2017 12:03:20	72973-1.RAW	12:03:20 PM	124.43	2		117.8	1.024	409.409	ng/L	
Hg2600-3	BC	SAM	1708118-03	400	8/10/2017 12:07:29	72974-1.RAW	12:07:29 PM	149.66	2		143.3	1.246	498.405	ng/L	
Hg2600-3	BC	SAM	1708118-04	400	8/10/2017 12:11:37	72975-1.RAW	12:11:37 PM	140.64	2		134.0	1.165	455.916	ng/L	
Hg2600-3	BC	SAM	1708118-05	400	8/10/2017 12:15:45	72976-1.RAW	12:15:45 PM	130.98	2		124.3	1.081	432.242	ng/L	
Hg2600-3	BC	SAM	1708120-01	400	8/10/2017 12:19:54	72977-1.RAW	12:19:54 PM	1216.11	2		1209.5	10.537	4214.935	ng/L	
Hg2600-3	BC	SAM	1708120-02	400	8/10/2017 12:24:02	72978-1.RAW	12:24:02 PM	730.60	2		723.9	6.306	2522.478	ng/L	
Hg2600-3	BC	SAM	1708120-03	400	8/10/2017 12:28:11	72979-1.RAW	12:28:11 PM	670.66	2		664.0	5.784	2313.531	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	8/10/2017 12:32:15	72980-1.RAW	12:32:19 PM	581.06			577.4	5.032	5.032	ng/L	
Hg2600-3	BC	CAL	SEQ-CCR5	1	8/10/2017 12:36:27	72981-1.RAW	12:36:27 PM	12.97			6.3	0.055	0.055	ng/L	
Hg2600-3	BC	SAM	1708120-04	400	8/10/2017 12:40:36	72982-1.RAW	12:40:36 PM	566.83	2		580.2	5.053	2021.305	ng/L	
Hg2600-3	BC	SAM	1708120-05	400	8/10/2017 12:44:44	72983-1.RAW	12:44:44 PM	505.38	2		498.7	4.343	1737.376	ng/L	
Hg2600-3	BC	SAM	1708118-01RC1	100	8/10/2017 12:48:53	72984-1.RAW	12:48:53 PM	456.42	2		489.8	4.257	425.688	ng/L	
Hg2600-3	BC	SAM	1708118-02RF1	100	8/10/2017 12:53:01	72985-1.RAW	12:53:01 PM	470.80	2		454.1	4.034	403.361	ng/L	
Hg2600-3	BC	SAM	1708118-03RE1	100	8/10/2017 12:57:10	72986-1.RAW	12:57:10 PM	551.14	2		544.5	4.734	473.376	ng/L	
Hg2600-3	BC	SAM	1708118-04RE1	100	8/10/2017 13:01:18	72987-1.RAW	1:01:18 PM	520.87	2		514.2	4.470	445.996	ng/L	
Hg2600-3	BC	SAM	1708118-05RE1	100	8/10/2017 13:05:26	72988-1.RAW	1:05:26 PM	496.46	2		491.8	4.275	427.466	ng/L	
Hg2600-3	BC	SAM	F708302-DUP1	100	8/10/2017 13:14:30	72989-1.RAW	1:14:30 PM	4896.67	2		4890.0	42.604	4260.435	ng/L	
Hg2600-3	BC	SAM	F708302-MS1	400	8/10/2017 13:18:39	72990-1.RAW	1:18:39 PM	2534.86	2		2528.2	22.030	8812.013	ng/L	
Hg2600-3	BC	SAM	F708302-MSD1	400	8/10/2017 13:22:47	72991-1.RAW	1:22:47 PM	2411.91	2		2405.3	20.959	8383.418	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	8/10/2017 13:26:58	72992-1.RAW	1:26:56 PM	591.94			585.2	5.100	5.100	ng/L	
Hg2600-3	BC	CAL	SEQ-CLB6	1	8/10/2017 13:31:04	72993-1.RAW	1:31:04 PM	19.24			12.6	0.110	0.110	ng/L	
Hg2600-3	BC	SAM	F708302-MS2	400	8/10/2017 13:35:12	72994-1.RAW	1:35:12 PM	2137.76	2		2131.1	18.569	7427.748	ng/L	
Hg2600-3	BC	SAM	F708302-MSD2	400	8/10/2017 13:39:21	72995-1.RAW	1:39:21 PM	2054.35	2		2047.7	17.842	7136.966	ng/L	
Hg2600-3	BC	SAM	F708302-DUP2	400	8/10/2017 13:43:29	72996-1.RAW	1:43:29 PM	1270.00	2		1263.3	11.007	4402.792	ng/L	
Hg2600-3	BC	SAM	F708302-MS3	400	8/10/2017 13:47:38	72997-1.RAW	1:47:38 PM	2574.79	2		2568.1	22.378	8951.207	ng/L	
Hg2600-3	BC	SAM	F708302-MSD3	400	8/10/2017 13:51:48	72998-1.RAW	1:51:46 PM	2429.88	2		2423.2	21.115	8446.060	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	8/10/2017 13:55:55	72999-1.RAW	1:55:55 PM	595.66			589.0	5.133	5.133	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	8/10/2017 14:00:03	73000-1.RAW	2:00:03 PM	17.08			10.4	0.091	0.091	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	BC	CAL	SEQ-IBL1	1	8/10/2017 7:54:07	72913-1.RAW	7:54:01 AM	5.00			-1.7	-0.014	-0.014	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	8/10/2017 7:58:09	72914-1.RAW	7:58:09 AM	7.22			0.5	0.005	0.005	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	8/10/2017 8:02:18	72915-1.RAW	8:02:18 AM	7.76			1.1	0.010	0.010	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	8/10/2017 8:06:26	72916-1.RAW	8:06:26 AM	86.35			59.7	0.520	0.520	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	8/10/2017 8:10:35	72917-1.RAW	8:10:35 AM	123.73			117.1	1.020	1.020	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	8/10/2017 8:14:43	72918-1.RAW	8:14:43 AM	577.00			570.3	4.970	4.970	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	8/10/2017 8:18:51	72919-1.RAW	8:18:51 AM	2250.90			2244.2	19.558	19.558	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	8/10/2017 8:23:00	72920-1.RAW	8:23:00 AM	4446.82			4440.2	38.695	38.695	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	8/10/2017 8:27:08	72921-1.RAW	8:27:08 AM	577.14			570.5	4.972	4.972	ng/L	
Hg2600-3	BC	BLK	F707534-BLK1	10	8/10/2017 8:32:11	72922-1.RAW	8:32:11 AM	16.67	1		10.2	0.089	0.890	ng/L	
Hg2600-3	BC	BLK	F707534-BLK2	10	8/10/2017 8:36:19	72923-1.RAW	8:36:19 AM	10.23	1		3.6	0.031	0.311	ng/L	
Hg2600-3	BC	SAM	F707534-BS1	100	8/10/2017 8:40:28	72924-1.RAW	8:40:28 AM	237.79	1		231.1	2.008	200.826	ng/L	
Hg2600-3	BC	SAM	F707534-BSD1	100	8/10/2017 8:44:36	72925-1.RAW	8:44:36 AM	256.85	1		250.2	2.174	217.436	ng/L	
Hg2600-3	BC	SAM	1707619-11	100	8/10/2017 8:48:46	72926-1.RAW	8:48:46 AM	199.90	1		193.3	1.679	167.875	ng/L	
Hg2600-3	BC	SAM	1707619-14	100	8/10/2017 8:52:53	72927-1.RAW	8:52:53 AM	154.78	1		148.1	1.285	128.484	ng/L	
Hg2600-3	BC	SAM	1707619-15	100	8/10/2017 8:57:01	72928-1.RAW	8:57:01 AM	1642.51	1		1635.9	14.250	1425.017	ng/L	
Hg2600-3	BC	SAM	1707619-16	100	8/10/2017 9:01:10	72929-1.RAW	9:01:10 AM	172.60	1		165.8	1.439	143.926	ng/L	
Hg2600-3	BC	SAM	1707619-17	100	8/10/2017 9:05:18	72930-1.RAW	9:05:18 AM	228.39	1		221.7	1.926	192.634	ng/L	
Hg2600-3	BC	SAM	1707619-18	100	8/10/2017 9:09:27	72931-1.RAW	9:09:27 AM	32.13	1		25.5	0.216	21.596	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	8/10/2017 9:13:35	72932-1.RAW	9:13:35 AM	575.93			569.3	4.961	4.961	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	8/10/2017 9:17:43	72933-1.RAW	9:17:43 AM	9.24			2.6	0.022	0.022	ng/L	
Hg2600-3	BC	SAM	1707619-19	100	8/10/2017 9:21:52	72934-1.RAW	9:21:52 AM	1603.35	1		1596.7	13.909	1390.889	ng/L	
Hg2600-3	BC	SAM	1707619-20	100	8/10/2017 9:26:00	72935-1.RAW	9:26:00 AM	3960.51	1		3953.0	34.451	3445.117	ng/L	
Hg2600-3	BC	SAM	1707619-21	100	8/10/2017 9:30:09	72936-1.RAW	9:30:09 AM	1831.38	1		1824.7	15.896	1589.614	ng/L	
Hg2600-3	BC	SAM	1707619-22	100	8/10/2017 9:34:17	72937-1.RAW	9:34:17 AM	2650.43	1		2643.8	23.034	2303.403	ng/L	
Hg2600-3	BC	SAM	1707619-23	100	8/10/2017 9:38:25	72938-1.RAW	9:38:25 AM	780.93	1		783.3	6.820	682.007	ng/L	
Hg2600-3	BC	SAM	1707619-24	100	8/10/2017 9:42:34	72939-1.RAW	9:42:34 AM	166.41	1		159.8	1.386	138.610	ng/L	
Hg2600-3	BC	SAM	1707619-25	100	8/10/2017 9:46:42	72940-1.RAW	9:46:42 AM	1625.13	1		1618.5	14.099	1409.870	ng/L	
Hg2600-3	BC	SAM	1707619-26	100	8/10/2017 9:50:51	72941-1.RAW	9:50:51 AM	1437.72	1		1431.1	12.455	1246.545	ng/L	
Hg2600-3	BC	SAM	1707619-27	100	8/10/2017 9:54:59	72942-1.RAW	9:54:59 AM	112.45	1		105.8	0.915	91.594	ng/L	
Hg2600-3	BC	SAM	1707619-28	100	8/10/2017 9:59:08	72943-1.RAW	9:59:08 AM	27.71	1		21.1	0.177	17.744	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	8/10/2017 10:03:16	72944-1.RAW	10:03:16 AM	575.23			568.6	4.955	4.955	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	8/10/2017 10:07:24	72945-1.RAW	10:07:24 AM	6.87			0.0	0.000	0.000	ng/L	
Hg2600-3	BC	SAM	1707619-29	100	8/10/2017 10:11:33	72946-1.RAW	10:11:33 AM	1358.79	1		1352.1	11.778	1177.759	ng/L	
Hg2600-3	BC	SAM	1707619-30	100	8/10/2017 10:15:41	72947-1.RAW	10:15:41 AM	81.86	1		75.2	0.649	64.935	ng/L	
Hg2600-3	BC	SAM	1707619-31	100	8/10/2017 10:19:50	72948-1.RAW	10:19:50 AM	28.51	1		21.9	0.184	18.441	ng/L	
Hg2600-3	BC	SAM	1707620-02	100	8/10/2017 10:23:58	72949-1.RAW	10:23:58 AM	35.15	1		28.5	0.242	24.228	ng/L	
Hg2600-3	BC	SAM	1707619-18RE1	10	8/10/2017 10:28:07	72950-1.RAW	10:28:07 AM	258.30	1		249.6	2.116	21.155	ng/L	
Hg2600-3	BC	SAM	1707619-27RE1	10	8/10/2017 10:32:15	72951-1.RAW	10:32:15 AM	922.25	1		915.6	7.919	79.192	ng/L	
Hg2600-3	BC	SAM	1707619-28RE1	10	8/10/2017 10:36:23	72952-1.RAW	10:36:23 AM	202.82	1		195.7	1.645	16.451	ng/L	
Hg2600-3	BC	SAM	1707619-30RE1	10	8/10/2017 10:40:32	72953-1.RAW	10:40:32 AM	750.40	1		743.7	6.422	64.215	ng/L	
Hg2600-3	BC	SAM	1707619-31RE1	10	8/10/2017 10:44:40	72954-1.RAW	10:44:40 AM	235.45	1		228.8	1.934	19.338	ng/L	
Hg2600-3	BC	SAM	1707620-02RE1	10	8/10/2017 10:48:49	72955-1.RAW	10:48:49 AM	295.05	1		288.4	2.453	24.533	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	8/10/2017 10:52:57	72956-1.RAW	10:52:57 AM	579.51			572.9	4.992	4.992	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	8/10/2017 10:57:05	72957-1.RAW	10:57:05 AM	11.75			5.1	0.045	0.045	ng/L	
Hg2600-3	BC	SAM	F707534-MS1	100	8/10/2017 11:01:14	72958-1.RAW	11:01:14 AM	738.49	1		731.8	6.376	2550.408	ng/L	
Hg2600-3	BC	SAM	F707534-MSD1	400	8/10/2017 11:05:22	72959-1.RAW	11:05:22 AM	692.41	1		685.8	5.975	2389.880	ng/L	
Hg2600-3	BC	SAM	F707534-MS2	400	8/10/2017 11:09:31	72960-1.RAW	11:09:31 AM	1134.31	1		1127.7	9.826	3930.315	ng/L	
Hg2600-3	BC	SAM	F707534-MSD2	400	8/10/2017 11:13:39	72961-1.RAW	11:13:39 AM	1190.99	1		1184.3	10.320	4127.898	ng/L	
Hg2600-3	BC	BLK	F708302-BLK1	20	8/10/2017 11:17:48	72962-1.RAW	11:17:48 AM	16.09	2		9.4	0.082	1.644	ng/L	
Hg2600-3	BC	BLK	F708302-BLK2	20	8/10/2017 11:21:56	72963-1.RAW	11:21:56 AM	11.26	2		4.6	0.040	0.802	ng/L	
Hg2600-3	BC	BLK	F708302-BLK3	20	8/10/2017 11:26:04	72964-1.RAW	11:26:04 AM	12.03	2		5.4	0.047	0.945	ng/L	
Hg2600-3	BC	SAM	F708302-BLK4	20	8/10/2017 11:30:13	72965-1.RAW	11:30:13 AM	10.68	2		3.9	-0.023	-0.450	ng/L	
Hg2600-3	BC	SAM	F708302-BS1	20	8/10/2017 11:34:21	72966-1.RAW	11:34:21 AM	535.82	2		530.2	4.564	91.275	ng/L	
Hg2600-3	BC	SAM	F708302-BSD1	20	8/10/2017 11:38:30	72967-1.RAW	11:38:30 AM	571.82	2		565.2	4.869	97.376	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	8/10/2017 11:42:38	72968-1.RAW	11:42:38 AM	567.28			560.5	4.886	4.886	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB4	1	8/10/2017 11:46:46	72969-1.RAW	11:46:46 AM	18.85			10.2	0.089	0.089	ng/L	

TotalMercury EPA1631
 Operati BC BlankSi 6.6609 Calib Eqn: Conc = (Area-6.660 Run Date: 8/10/2017 Blank SD: 1.460992236
 Worksh THg260(CalibFa 114.74 Status: QC Warnings:5/QC E Run Time: 13:10:21 Blank RSD%: 21.93384191
 Method ##### R: 1 R2: 1 CF SD: 3.451711905
 Descrip THg26003-170810-1 CF RSD%: 3.00818576

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	1.43					72908-1.RAW	7:34:36	164.55	Clean	OK	1
clean										72909-1.RAW	7:37:27	0.00	Clean	NP	1
ws				6.66	0.00					72910-1.RAW	7:41:36	4.10	Sample	OK	1
ws										72911-1.RAW	7:45:44	0.00	Sample	NP	1
ws				6.66	0.00					72912-1.RAW	7:49:52	3.84	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.04					72913-1.RAW	7:54:01	5.00	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.06					72914-1.RAW	7:58:09	7.22	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.07					72915-1.RAW	8:02:18	7.76	Sample	OK	1
SEQ-CAL1	A4		1	6.66	0.52			104.03		72916-1.RAW	8:06:26	66.35	Sample	OK	1
SEQ-CAL2	A5		1	6.66	1.02			102.02		72917-1.RAW	8:10:35	123.73	Sample	OK	1
SEQ-CAL3	A6		1	6.66	4.97			99.41		72918-1.RAW	8:14:43	577.00	Sample	OK	1
SEQ-CAL4	A7		1	6.66	19.56			97.79		72919-1.RAW	8:18:51	2250.90	Sample	OK	1
SEQ-CAL5	A8		1	6.66	38.70			96.74		72920-1.RAW	8:23:00	4446.82	Sample	OK	1
SEQ-ICV1	A9		1	6.66	4.97			99.43		72921-1.RAW	8:27:08	577.14	Sample	OK	1
F707534-BLK1	A10		10	6.66	0.89					72922-1.RAW	8:32:11	16.87	Sample	OK	1
F707534-BLK2	A11		10	6.66	0.31					72923-1.RAW	8:36:19	10.23	Sample	OK	1
F707534-BS1	A12		100	6.66	201.43					72924-1.RAW	8:40:28	237.79	Sample	OK	1
F707534-BSD1	B1		100	6.66	218.04					72925-1.RAW	8:44:36	256.85	Sample	OK	1
1707619-11	B2		100	6.66	168.48					72926-1.RAW	8:48:45	199.98	Sample	OK	1
1707619-14	B3		100	6.66	129.09					72927-1.RAW	8:52:53	154.78	Sample	OK	1
1707619-15	B4		100	6.66	1425.65					72928-1.RAW	8:57:01	1642.51	Sample	OK	1
1707619-16	B5		100	6.66	144.53					72929-1.RAW	9:01:10	172.50	Sample	OK	1
1707619-17	B6		100	6.66	193.24					72930-1.RAW	9:05:18	228.39	Sample	OK	1
1707619-18	B7		100	6.66	22.20					72931-1.RAW	9:09:27	32.13	Sample	OK	1
SEQ-CCV1	B8		1	6.66	4.96			99.22		72932-1.RAW	9:13:35	575.93	Sample	OK	1
SEQ-CCB1	B9		1	6.66	0.02			0.00		72933-1.RAW	9:17:43	9.24	Sample	OK	1
1707619-19	B10		100	6.66	1391.52					72934-1.RAW	9:21:52	1603.35	Sample	OK	1
1707619-20	B11		100	6.66	3445.80					72935-1.RAW	9:26:00	3960.51	Sample	FB	1
1707619-21	B12		100	6.66	1590.25					72936-1.RAW	9:30:09	1831.38	Sample	OK	1
1707619-22	C1		100	6.66	2304.06					72937-1.RAW	9:34:17	2650.43	Sample	OK	1
1707619-23	C2		100	6.66	682.62					72938-1.RAW	9:38:25	789.93	Sample	OK	1
1707619-24	C3		100	6.66	139.22					72939-1.RAW	9:42:34	166.41	Sample	OK	1
1707619-25	C4		100	6.66	1410.51					72940-1.RAW	9:46:42	1625.13	Sample	OK	1
1707619-26	C5		100	6.66	1247.17					72941-1.RAW	9:50:51	1437.72	Sample	OK	1
1707619-27	C6		100	6.66	92.20					72942-1.RAW	9:54:59	112.45	Sample	OK	1
1707619-28	C7		100	6.66	18.34					72943-1.RAW	9:59:08	27.71	Sample	OK	1
SEQ-CCV2	C8		1	6.66	4.96			99.10		72944-1.RAW	10:03:16	575.23	Sample	OK	1
SEQ-CCB2	C9		1	6.66	0.00			0.00		72945-1.RAW	10:07:24	6.67	Sample	OK	1
1707619-29	C10		100	6.66	1178.39					72946-1.RAW	10:11:33	1358.79	Sample	OK	1
1707619-30	C11		100	6.66	65.53					72947-1.RAW	10:15:41	81.86	Sample	OK	1
1707619-31	C12		100	6.66	19.04					72948-1.RAW	10:19:50	28.51	Sample	OK	1
1707620-02	D1		100	6.66	24.83					72949-1.RAW	10:23:58	35.15	Sample	OK	1
1707619-18RE1	D2		10	6.66	21.76					72950-1.RAW	10:28:07	256.30	Sample	OK	1

1707619-27RE1	D3	10	6.66	79.79		72951-1.RAW	10:32:15	922.25	Sample	OK	1
1707619-28RE1	D4	10	6.66	17.05		72952-1.RAW	10:36:23	202.32	Sample	OK	1
1707619-30RE1	D5	10	6.66	64.82		72953-1.RAW	10:40:32	750.40	Sample	OK	1
1707619-31RE1	D6	10	6.66	19.94		72954-1.RAW	10:44:40	235.45	Sample	OK	1
1707620-02RE1	D7	10	6.66	25.13		72955-1.RAW	10:48:49	295.06	Sample	OK	1
SEQ-CCV3	D8	1	6.66	4.99	99.85	72956-1.RAW	10:52:57	579.51	Sample	OK	1
SEQ-CCB3	D9	1	6.66	0.04	0.00	72957-1.RAW	10:57:05	11.78	Sample	OK	1
F707534-MS1	D10	400	6.66	2551.08	244215.67	72958-1.RAW	11:01:14	738.46	Sample	OK	1
F707534-MSD1	D11	400	6.66	2390.54		72959-1.RAW	11:05:22	692.41	Sample	OK	1
F707534-MS2	D12	400	6.66	3931.02	164.30	72960-1.RAW	11:09:31	1134.31	Sample	OK	1
F707534-MSD2	A1	400	6.66	4128.59		72961-1.RAW	11:13:39	1190.99	Sample	OK	1
F708302-BLK1	A2	20	6.66	1.64		72962-1.RAW	11:17:48	16.09	Sample	OK	1
F708302-BLK2	A3	20	6.66	0.80		72963-1.RAW	11:21:56	11.26	Sample	OK	1
F708302-BLK3	A4	20	6.66	0.95		72964-1.RAW	11:26:04	12.08	Sample	OK	1
F708302-BLK4	A5	20	6.66	0.68		72965-1.RAW	11:30:13	10.56	Sample	OK	1
F708302-BS1	A6	20	6.66	92.41		72966-1.RAW	11:34:21	536.82	Sample	OK	1
F708302-BSD1	A7	20	6.66	98.51		72967-1.RAW	11:38:30	571.82	Sample	OK	1
SEQ-CCV4	A8	1	6.66	4.89	97.72	72968-1.RAW	11:42:38	567.28	Sample	OK	1
SEQ-CCB4	A9	1	6.66	0.09	0.00	72969-1.RAW	11:46:46	16.85	Sample	OK	1
F708302-BS2	A10	400	6.66	2163.80		72970-1.RAW	11:50:55	627.37	Sample	OK	1
1708084-01	A11	100	6.66	989.16		72971-1.RAW	11:55:03	1141.66	Sample	OK	1
1708118-01	A12	400	6.66	459.80		72972-1.RAW	11:59:12	138.56	Sample	OK	1
1708118-02	B1	400	6.66	410.53		72973-1.RAW	12:03:20	124.43	Sample	OK	1
1708118-03	B2	400	6.66	499.53		72974-1.RAW	12:07:29	149.96	Sample	OK	1
1708118-04	B3	400	6.66	467.04		72975-1.RAW	12:11:37	140.64	Sample	OK	1
1708118-05	B4	400	6.66	433.38		72976-1.RAW	12:15:45	130.98	Sample	OK	1
1708120-01	B5	400	6.66	4216.17		72977-1.RAW	12:19:54	1216.11	Sample	OK	1
1708120-02	B6	400	6.66	2523.68		72978-1.RAW	12:24:02	730.60	Sample	OK	1
1708120-03	B7	400	6.66	2314.70		72979-1.RAW	12:28:11	670.66	Sample	OK	1
SEQ-CCV5	B8	1	6.66	5.03	100.64	72980-1.RAW	12:32:19	584.06	Sample	OK	1
SEQ-CCB5	B9	1	6.66	0.05	0.00	72981-1.RAW	12:36:27	12.97	Sample	OK	1
1708120-04	B10	400	6.66	2022.47		72982-1.RAW	12:40:36	586.83	Sample	OK	1
1708120-05	B11	400	6.66	1738.56		72983-1.RAW	12:44:44	505.38	Sample	OK	1
1708118-01RE1	B12	100	6.66	426.83		72984-1.RAW	12:48:53	496.42	Sample	OK	1
1708118-02RE1	C1	100	6.66	404.50		72985-1.RAW	12:53:01	470.80	Sample	OK	1
1708118-03RE1	C2	100	6.66	474.52		72986-1.RAW	12:57:10	551.14	Sample	OK	1
1708118-04RE1	C3	100	6.66	448.14		72987-1.RAW	13:01:18	520.87	Sample	OK	1
1708118-05RE1	C4	100	6.66	428.61		72988-1.RAW	13:05:26	498.46	Sample	OK	1
F708302-DUP1	C5	100	6.66	4261.87		72989-1.RAW	13:14:30	4896.67	Sample	OK	1
F708302-MS1	C6	400	6.66	8813.34	206.76	72990-1.RAW	13:18:39	2534.86	Sample	OK	1
F708302-MSD1	C7	400	6.66	8384.76		72991-1.RAW	13:22:47	2411.91	Sample	OK	1
SEQ-CCV6	C8	1	6.66	5.10	102.00	72992-1.RAW	13:26:56	591.84	Sample	OK	1
SEQ-CCB6	C9	1	6.66	0.11	0.00	72993-1.RAW	13:31:04	19.24	Sample	OK	1
F708302-MS2	C10	400	6.66	7429.07	352150.22	72994-1.RAW	13:35:12	2137.76	Sample	OK	1
F708302-MSD2	C11	400	6.66	7138.28		72995-1.RAW	13:39:21	2054.35	Sample	OK	1
F708302-DUP2	C12	400	6.66	4404.03		72996-1.RAW	13:43:29	1270.00	Sample	OK	1
F708302-MS3	D1	400	6.66	8952.54	203.14	72997-1.RAW	13:47:38	2574.79	Sample	OK	1
F708302-MSD3	D2	400	6.66	8447.39		72998-1.RAW	13:51:46	2429.88	Sample	FB	1

SEQ-CCV7	D3	1	6.66	5.13	102.66	72999-1.RAW	13:55:55	595.66 Sample	OK	1
SEQ-CCB7	D4	1	6.66	0.09	0.00	73000-1.RAW	14:00:03	17.08 Sample	OK	1

ANALYSIS SEQUENCE

7H10026



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H10026-IBL1	QC	1			
7H10026-IBL2	QC	2			
7H10026-IBL3	QC	3			
7H10026-CAL1	QC	4	1704505		
7H10026-CAL2	QC	5	1704506		
7H10026-CAL3	QC	6	1704507		
7H10026-CAL4	QC	7	1704508		
7H10026-CAL5	QC	8	1704509		
7H10026-ICV1	QC	9	1703679		
7H10026-CCV1	QC	10	1703679		
7H10026-CCB1	QC	11			
7H10026-CCV2	QC	12	1703679		
7H10026-CCB2	QC	13			
7H10026-CCV3	QC	14	1703679		
7H10026-CCB3	QC	15			
F708302-BLK1	QC	16			
F708302-BLK2	QC	17			
F708302-BLK3	QC	18			
F708302-BLK4	QC	19			
F708302-BS1	QC	20			
F708302-BSD1	QC	21			
7H10026-CCV4	QC	22	1703679		
7H10026-CCB4	QC	23			
F708302-BS2	QC	24			
1708084-01	Hg-CVAFS-T-7030	25			Scan all data for level IV report
1708118-01	Hg-CVAFS-T-7030	26			
1708118-02	Hg-CVAFS-T-7030	27			
1708118-03	Hg-CVAFS-T-7030	28			
1708118-04	Hg-CVAFS-T-7030	29			
1708118-05	Hg-CVAFS-T-7030	30			
1708120-01	Hg-CVAFS-T-7030	31			
1708120-02	Hg-CVAFS-T-7030	32			
1708120-03	Hg-CVAFS-T-7030	33			
7H10026-CCV5	QC	34	1703679		
7H10026-CCB5	QC	35			

Due Date: 8/30/2017

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Page 1 of 2

ANALYSIS SEQUENCE

7H10026



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708120-04	Hg-CVAFS-T-7030	36			
1708120-05	Hg-CVAFS-T-7030	37			
1708118-01RE1	Hg-CVAFS-T-7030	38			Added 8/10/2017 by BC
1708118-02RE1	Hg-CVAFS-T-7030	39			Added 8/10/2017 by BC
1708118-03RE1	Hg-CVAFS-T-7030	40			Added 8/10/2017 by BC
1708118-04RE1	Hg-CVAFS-T-7030	41			Added 8/10/2017 by BC
1708118-05RE1	Hg-CVAFS-T-7030	42			Added 8/10/2017 by BC
F708302-DUP1	QC	43			
F708302-MS1	QC	44			
F708302-MSD1	QC	45			
7H10026-CCV6	QC	46	1703679		
7H10026-CCB6	QC	47			
F708302-MS2	QC	48			
F708302-MSD2	QC	49			
F708302-DUP2	QC	50			
F708302-MS3	QC	51			
F708302-MSD3	QC	52			
7H10026-CCV7	QC	53	1703679		
7H10026-CCB7	QC	54			


8/10/17
 Samples Loaded By _____ Date


8/10/17
 Data Processed By _____ Date

ANALYSIS SEQUENCE

7H10027



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H10027-IBL1	QC	1			
7H10027-IBL2	QC	2			
7H10027-IBL3	QC	3			
7H10027-CAL1	QC	4	1704505		
7H10027-CAL2	QC	5	1704506		
7H10027-CAL3	QC	6	1704507		
7H10027-CAL4	QC	7	1704508		
7H10027-CAL5	QC	8	1704509		
7H10027-ICV1	QC	9	1703679		
F707534-BLK1	QC	10			
F707534-BLK2	QC	11			
F707534-BS1	QC	12			
F707534-BSD1	QC	13			
1707619-11	Hg-CVAFS-S-7474	14			
1707619-14	Hg-CVAFS-S-7474	15			
1707619-15	Hg-CVAFS-S-7474	16			
1707619-16	Hg-CVAFS-S-7474	17			
1707619-17	Hg-CVAFS-S-7474	18			
1707619-18	Hg-CVAFS-S-7474	19			
7H10027-CCV1	QC	20	1703679		
7H10027-CCB1	QC	21			
1707619-19	Hg-CVAFS-S-7474	22			
1707619-20	Hg-CVAFS-S-7474	23			
1707619-21	Hg-CVAFS-S-7474	24			
1707619-22	Hg-CVAFS-S-7474	25			
1707619-23	Hg-CVAFS-S-7474	26			
1707619-24	Hg-CVAFS-S-7474	27			
1707619-25	Hg-CVAFS-S-7474	28			
1707619-26	Hg-CVAFS-S-7474	29			
1707619-27	Hg-CVAFS-S-7474	30			
1707619-28	Hg-CVAFS-S-7474	31			
7H10027-CCV2	QC	32	1703679		
7H10027-CCB2	QC	33			
1707619-29	Hg-CVAFS-S-7474	34			
1707619-30	Hg-CVAFS-S-7474	35			

Due Date: 8/21/2017

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Page 1 of 2

ANALYSIS SEQUENCE

7H10027



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/10/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707619-31	Hg-CVAFS-S-7474	36			
1707620-02	Hg-CVAFS-S-7474	37			
1707619-18RE1	Hg-CVAFS-S-7474	38			Added 8/10/2017 by BC
1707619-27RE1	Hg-CVAFS-S-7474	39			Added 8/10/2017 by BC
1707619-28RE1	Hg-CVAFS-S-7474	40			Added 8/10/2017 by BC
1707619-30RE1	Hg-CVAFS-S-7474	41			Added 8/10/2017 by BC
1707619-31RE1	Hg-CVAFS-S-7474	42			Added 8/10/2017 by BC
1707620-02RE1	Hg-CVAFS-S-7474	43			Added 8/10/2017 by BC
7H10027-CCV3	QC	44	1703679		
7H10027-CCB3	QC	45			
F707534-MS1	QC	46			
F707534-MSD1	QC	47			
F707534-MS2	QC	48			
F707534-MSD2	QC	49			
7H10027-CCV4	QC	50	1703679		
7H10027-CCB4	QC	51			

Becis 8/10/17
 Samples Loaded By _____ Date

Becis 8/10/17
 Data Processed By _____ Date

Failing Data Report - 7H10026

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F708302-DUP1	Hg-CVAFS-T-7030	295.0	3.46	320.0	320.0		ng/g				8.13	24.00	FAIL-OVER	PASS-DUP	E

Beating 8/10/17
 Analyst Reviewed By Date

Don M. Steem 8/11/17
 Peer Reviewed By Date

PREPARATION BENCH SHEET

F708302

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708302-BLK1	Blank	0.25	20					
F708302-BLK2	Blank	0.25	20					
F708302-BLK3	Blank	0.25	20					
F708302-BLK4	Filter Blank	0.274	20					
F708302-BS1	LCS	0.2748	20	1704421	20			
F708302-BS2	LCS	0.1343	20	1703305	134.3			
F708302-BSD1	LCS Dup	0.285	20	1704421	20			
F708302-DUP1	Duplicate [1708120-01]	0.2888	20					
F708302-DUP2	Duplicate [1708120-01]	0.2888	20					
F708302-MS1	Matrix Spike [1708120-01]	0.2867	20	1701763	100			
F708302-MS2	Matrix Spike [1708120-02]	0.2922	20	1701763	100			
F708302-MS3	Matrix Spike [1708120-01]	0.2867	20	1701763	100			
F708302-MSD1	Matrix Spike Dup [1708120-01]	0.2555	20	1701763	100			
F708302-MSD2	Matrix Spike Dup [1708120-02]	0.2752	20	1701763	100			
F708302-MSD3	Matrix Spike Dup [1708120-01]	0.2555	20	1701763	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/ml Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703305	DORM-4	29-May-20 00:00	1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703702	THg Dilute 1% BrCl	
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704524	70/30 Digestion Acid	22-Jan-18 00:00
			1704691	3% SnCl2 THg reductant	
			1704740	5% BrCl	18-Dec-17 00:00

Due Date: 8/30/2017

PREPARATION BENCH SHEET

F708302

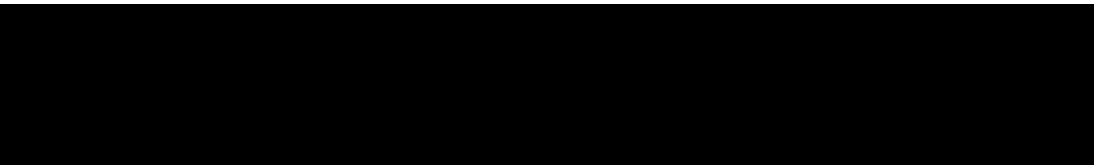
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708084-01	OL-2638-01	0.2915	20	-	-	-	Preservation Blank Created Scan all dat	
1708118-01	OB-01_17HC001_072517_POL_01_WB	0.2792	20	QC	-	-	MS/MSD	From F708299 by CF on 04-Aug-17
1708118-01RE1	OB-01_17HC001_072517_POL_01_WB	0.2792	20	QC	-	-	MS/MSD Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708118-02	OB-01_17HC001_072517_POL_02_WB	0.2635	20	-	-	-		From F708299 by CF on 04-Aug-17
1708118-02RE1	OB-01_17HC001_072517_POL_02_WB	0.2635	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708118-03	OB-01_17HC001_072517_POL_03_WB	0.2961	20	-	-	-		From F708299 by CF on 04-Aug-17
1708118-03RE1	OB-01_17HC001_072517_POL_03_WB	0.2961	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708118-04	OB-01_17HC001_072517_POL_04_WB	0.25	20	-	-	-		From F708299 by CF on 04-Aug-17
1708118-04RE1	OB-01_17HC001_072517_POL_04_WB	0.25	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708118-05	OB-01_17HC001_072517_POL_05_WB	0.2901	20	-	-	-		From F708299 by CF on 04-Aug-17
1708118-05RE1	OB-01_17HC001_072517_POL_05_WB	0.2901	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708120-01	OV-04_17ET628_072817_EEL_02_WB	0.2634	20	QC	-	-	MS/MSD	From F708299 by CF on 04-Aug-17
1708120-02	OV-04_17ET628_072817_EEL_03_WB	0.2869	20	-	-	-		From F708299 by CF on 04-Aug-17
1708120-03	OV-04_17ET628_072817_EEL_04_WB	0.287	20	-	-	-		From F708299 by CF on 04-Aug-17
1708120-04	OV-04_17ET628_072817_EEL_05_WB	0.2645	20	-	-	-		From F708299 by CF on 04-Aug-17
1708120-05	OV-04_17ET628_072817_EEL_06_WB	0.245	20	-	-	-		From F708299 by CF on 04-Aug-17



PREPARATION BENCH SHEET

F708302

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

From F708299 on 04-Aug-17 by CF

Due Date: 8/30/2017

PREPARATION BENCH SHEET

F707534

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/9/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707534-BLK1	Blank	0.5	200					
F707534-BLK2	Blank	0.5	200					
F707534-BS1	Blank Spike	0.5	200	1701763	40			
F707534-BSD1	Blank Spike	0.5	200	1701763	40			
F707534-MS1	Matrix Spike [1707619-11]	0.5407	200	1703591	50			
F707534-MS2	Matrix Spike [1707619-21]	0.5709	200	1703591	50			
F707534-MSD1	Matrix Spike Dup [1707619-11]	0.5509	200	1703591	50			
F707534-MSD2	Matrix Spike Dup [1707619-21]	0.5633	200	1703591	50			

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703591	THg 10,000ng/mL Primary Spiking Standard	14-Dec-17 00:00	1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1703831	Omnitrace Hydrochloric Acid	26-Jun-20 00:00
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1704691	3% SnCl2 THg reductant	22-Jan-18 00:00
			1704812	7474 Potassium Bromate/Bromide Reagent	15-Aug-17 00:00

PREPARATION BENCH SHEET

F707534

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/9/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707619-11	W-21-UM-Central-C_071817_SED_01-03	0.5873	200	QC	-	-	MS/MSD	
1707619-14	W-65-High_071817_SED_01-03	0.5474	200	-	-	-		
1707619-15	W-65-Low_071817_SED_01-03	0.5591	200	-	-	-		
1707619-16	W-65-Mid_071817_SED_01-03	0.5839	200	-	-	-		
1707619-17	W-21-UM-Central-C_071917_SED_03-05	0.5358	200	-	-	-		
1707619-18	W-21-UM-Central-C_071917_SED_05-10	0.5429	200	-	-	-		
1707619-18RE1	W-21-UM-Central-C_071917_SED_05-10	0.5429	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707619-19	W-17-Low_071917_SED_03-05	0.5837	200	-	-	-		
1707619-20	W-17-Low_071917_SED_05-10	0.5291	200	-	-	-		
1707619-21	W-17-Mid_071917_SED_03-05	0.5937	200	QC	-	-	MS/MSD	
1707619-22	W-17-Mid_071917_SED_05-10	0.5602	200	-	-	-		
1707619-23	W-63-High_071917_SED_03-05	0.584	200	-	-	-		
1707619-24	W-63-High_071917_SED_05-10	0.5528	200	-	-	-		
1707619-25	W-63-Mid_071917_SED_03-05	0.5614	200	-	-	-		
1707619-26	W-63-Mid_071917_SED_05-10	0.5642	200	-	-	-		
1707619-27	W-65-High_071917_SED_03-05	0.5572	200	-	-	-		
1707619-27RE1	W-65-High_071917_SED_03-05	0.5572	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707619-28	W-65-High_071917_SED_05-10	0.5524	200	-	-	-		
1707619-28RE1	W-65-High_071917_SED_05-10	0.5524	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC

Due Date: 8/21/2017

PREPARATION BENCH SHEET

F707534

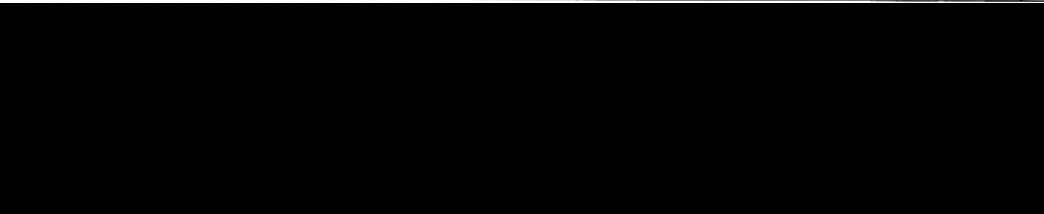
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/9/2017

1707619-29	W-65-Low_071917_SED_03-05	0.553	200	-	-	-		
1707619-30	W-65-Low_071917_SED_05-10	0.5423	200	-	-	-		
1707619-30RE1	W-65-Low_071917_SED_05-10	0.5423	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707619-31	W-65-Mid_071917_SED_03-05	0.5559	200	-	-	-		
1707619-31RE1	W-65-Mid_071917_SED_03-05	0.5559	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707620-02	W-MM-03_071717_SED_00-01	0.56	200	-	-	-		
1707620-02RE1	W-MM-03_071717_SED_00-01	0.56	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC



PREPARATION BENCH SHEET

~~F76~~ PX 8/10/17
2600-3

F707534

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/9/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707534-BLK1	Blank	0.5	200					10X
F707534-BLK2	Blank	0.5	200					10X
F707534-BS1	Blank Spike	0.5	200	1701763	40			100X
F707534-BSD1	Blank Spike	0.5	200	1701763	40			100X
F707534-MS1	Matrix Spike [1707619-11]	0.5407	200	1703591	50			400X
F707534-MS2	Matrix Spike [1707619-21]	0.5709	200	1703591	50			400X
F707534-MSD1	Matrix Spike Dup [1707619-11]	0.5509	200	1703591	50			400X
F707534-MSD2	Matrix Spike Dup [1707619-21]	0.5633	200	1703591	50			400X

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703831	Omnitrace Hydrochloric Acid	26-Jun-20 00:00
1703591	THg 10,000ng/mL Primary Spiking Standard	14-Dec-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1704812	7474 Potassium Bromate/Bromide Reagent	15-Aug-17 00:00

1704691
1703701
1703702
1703182

PC 8/10/17
2600-3

PREPARATION BENCH SHEET

F707534

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/9/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707619-11	W-21-UM-Central-C_071817_SED_01-03	0.5873	200	QC	-	-	MS/MSD 100X	
1707619-14	W-65-High_071817_SED_01-03	0.5474	200	-	-	-	100X	
1707619-15	W-65-Low_071817_SED_01-03	0.5591	200	-	-	-	100X	
1707619-16	W-65-Mid_071817_SED_01-03	0.5839	200	-	-	-	100X	
1707619-17	W-21-UM-Central-C_071917_SED_03-05	0.5358	200	-	-	-	100X	
1707619-18	W-21-UM-Central-C_071917_SED_05-10	0.5429	200	-	-	-	100X → 10X	
1707619-19	W-17-Low_071917_SED_03-05	0.5837	200	-	-	-	100X	
1707619-20	W-17-Low_071917_SED_05-10	0.5291	200	-	-	-	100X	
1707619-21	W-17-Mid_071917_SED_03-05	0.5937	200	QC	-	-	MS/MSD 100X	
1707619-22	W-17-Mid_071917_SED_05-10	0.5602	200	-	-	-	100X	
1707619-23	W-63-High_071917_SED_03-05	0.584	200	-	-	-	100X	
1707619-24	W-63-High_071917_SED_05-10	0.5528	200	-	-	-	100X	
1707619-25	W-63-Mid_071917_SED_03-05	0.5614	200	-	-	-	100X	
1707619-26	W-63-Mid_071917_SED_05-10	0.5642	200	-	-	-	100y	
1707619-27	W-65-High_071917_SED_03-05	0.5572	200	-	-	-	100X → 10X	
1707619-28	W-65-High_071917_SED_05-10	0.5524	200	-	-	-	100X → 10X	
1707619-29	W-65-Low_071917_SED_03-05	0.553	200	-	-	-	100X	
1707619-30	W-65-Low_071917_SED_05-10	0.5423	200	-	-	-	100X → 10X	
1707619-31	W-65-Mid_071917_SED_03-05	0.5559	200	-	-	-	100X → 10X	

Due Date: 8/21/2017

PREPARATION BENCH SHEET

BC 8/10/17
2600-3

F707534

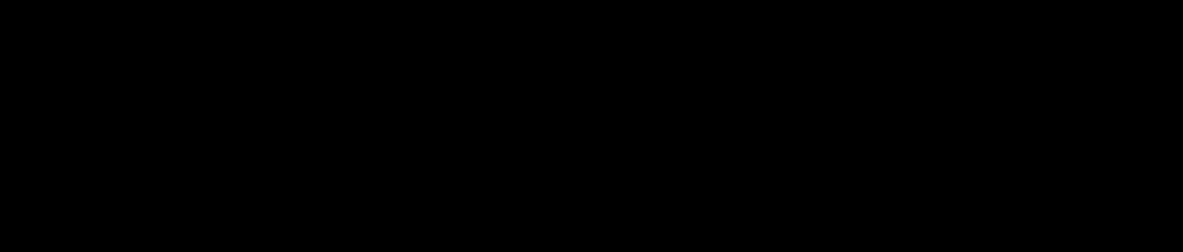
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/9/2017

1707620-02	W-MM-03_071717_SED_00-01	0.56	200	-	-	-	100X → 10X	
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Technician: Duyen Batch#: F707534 Date: 8/9/17

- EFAS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA 7474
 Balance#: 19 Calibrated? Yes No Therm.#: N/A Vial Type: Glass Teflon
 Calibrated? Yes No
 *Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 *Time in can't begin before target temperature is reached

Final vol.: 25 mL (LIMS ID: Roll 20) Spike vol.: 40 µL (LIMS ID: 1701763)
 Spike Witness: BC 8/9/17 (initial and date)

HCl LIMS ID: 1703831 Pipette SN#: ML11619 Calibration Date: 8-9-17
 HNO₃ LIMS ID: 1704484 Pipette SN#: NW07693 Calibration Date: 8/9/17
 70/30 LIMS ID: N/A Dispenser #: 09N45551 Calibrated? Yes No
 Other Acid LIMS ID: 1704812 Dispenser #: 08Y2293 Yes
 Glass Vial # J264712-3025 Boiling Chip lot # 1704424 *Hotblock Position: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> N/A
1	F707534 Bk1	0.5017	27 8	1707619-27A	0.5572	
2	F707534 Bk2	0.5068	27 9	1707619-28	0.5524	
3	F707534 B51	0.5008	25 10	1707619-29	0.5530	
4	F707534 B501	0.5832	25 11	1707619-20	0.5423	Comments
5	1707619-11D	0.5873	27 12	1707619-31	0.5559	F707534 source MS1 MS01 1707619-11
6	F707534-MS1	0.5407	28 13	1707620-02	0.5600	
7	F707534-MS01	0.5509	29			<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: absolute; top: 50%; left: 50%; opacity: 0.5;"></div> F707534 MS2 MS02 1707619-27 ALL Spike MS1 MS01 = 50 ul 10,000 ug/bulb 1703591 8/9/17 ms
8	1707619-14D	0.5474	30			
9	1707619-15A	0.5591	31			
10	1707619-16A	0.5839	32			
11	1707619-17A	0.5358	33			
12	1707619-18A	0.5429	34			
13	1707619-19A	0.5837	35			
14	1707619-20A	0.5291	36			
15	1707619-21A	0.5937	37			
16	F707534-MS2	0.5709	38			
17	F707534-MS02	0.5633	39			
18	1707619-22A	0.5602	40			
19	1707619-23A	0.5840	41			
20	1707619-24A	0.5528	42			
21	1707619-25A	0.5614	43			
22	1707619-26A	0.5642	44			

PREPARATION BENCH SHEET

F708302

Eurofins Frontier Global Sciences, Inc.

8/10/17 BL
2600-3

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708302-BLK1	Blank	0.25	20					20X
F708302-BLK2	Blank	0.25	20					20X
F708302-BLK3	Blank	0.25	20					20X
F708302-BLK4	Filter Blank	0.274	20					20X
F708302-BS1	LCS	0.2748	20	1704421	20			20X
F708302-BS2	LCS	0.1343	20					400X
F708302-BSD1	LCS Dup	0.285	20	1704421	20			20X
F708302-DUP1	Duplicate [1708120-01]	0.2888	20					100X
F708302-MS1	Matrix Spike [1708120-01]	0.2867	20	1701763	100			400X
F708302-MS2	Matrix Spike [1708120-02]	0.2922	20	1701763	100			400X
F708302-MSD1	Matrix Spike Dup [1708120-01]	0.2555	20	1701763	100			400X
F708302-MSD2	Matrix Spike Dup [1708120-02]	0.2752	20	1701763	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1704524	70/30 Digestion Acid	22-Jan-18 00:00
			1704740	5% BrCl	18-Dec-17 00:00

DUP 2 rerun of DUP 1 400X

MS 3, MSD3 rerun MS1/MSD1 400X

1704691

~~170470~~

1703701

1703702

1703182

Due Date: 8/30/2017

PREPARATION BENCH SHEET

Bx 8/10/17

2600-3

F708302

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708084-01	OL-2638-01	0.2915	20	-	-	-	Preservation Blank Created Scan all dat	100x
1708118-01	OB-01_17HC001_072517_POL_01_WB	0.2792	20	-	-	-		From F708299 by CF on 04-Aug-17 400x → 100x
1708118-02	OB-01_17HC001_072517_POL_02_WB	0.2635	20	-	-	-		From F708299 by CF on 04-Aug-17 400x → 100x
1708118-03	OB-01_17HC001_072517_POL_03_WB	0.2961	20	-	-	-		From F708299 by CF on 04-Aug-17 400x → 100x
1708118-04	OB-01_17HC001_072517_POL_04_WB	0.25	20	-	-	-		From F708299 by CF on 04-Aug-17 400x → 100x
1708118-05	OB-01_17HC001_072517_POL_05_WB	0.2901	20	-	-	-		From F708299 by CF on 04-Aug-17 400x → 100x
1708120-01	OV-04_17ET628_072817_EEL_02_WB	0.2634	20	QC	-	-	MS/MSD	From F708299 by CF on 04-Aug-17 400x
1708120-02	OV-04_17ET628_072817_EEL_03_WB	0.2869	20	-	-	-		From F708299 by CF on 04-Aug-17 400x
1708120-03	OV-04_17ET628_072817_EEL_04_WB	0.287	20	-	-	-		From F708299 by CF on 04-Aug-17 400x
1708120-04	OV-04_17ET628_072817_EEL_05_WB	0.2645	20	-	-	-		From F708299 by CF on 04-Aug-17 400x
1708120-05	OV-04_17ET628_072817_EEL_06_WB	0.245	20	-	-	-		From F708299 by CF on 04-Aug-17 400x

Technician: CWF Batch#: F708302 Date: 8/4/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 11:00 Actual Temp. (raw): 76.0 °C w/ CF: 76.0 °C

Time out: 13:00 Actual Temp. (raw): 80.0 °C w/ CF: 80.0 °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1704740) Spike vol.: 100 µL (LIMS ID: 1701763)

Spike Witness: on 8/7/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 8/2/17

HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1704524 Dispenser #: 02827494 Calibrated? Yes No

Other Acid LIMS ID: _____ Dispenser #: 15406623 Calibrated? Yes No

Glass Vial # ~~0067424~~ 0006807 Boiling Chip lot # 1704424 *Hotblock Position: K4

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F708302 - BLK1	0.2849	23	1708120 - 05	0.2450	B52 = PORM-4
2	F708302 - BLK2	0.2850	24			LIMS = 1707305
3	F708302 - BLK3	0.2550	25			
4	F708302 - BLK4	0.2740	26			Comments
5	F708302 - B51	0.2748	27			F708302 - DUPI,
6	F708302 - B5D1	0.2850	28			MS1, MSD1
7	F708302 - B52	0.1343	29			Source = 1708120 - 01
8	1708084 - 01	0.2915 ^{CWF} 29.15 ^{WF}	30			
9	1708118 - 01	20.2792 ^{CWF} 20.2792 ^{WF}	31			F708302 - MS2,
10	1708118 - 02	0.2635	32			MSD2 source =
11	1708118 - 03	0.2961	33			1708120 - 02
12	1708118 - 04	0.2500	34	<u>CWF</u> <u>8/4/17</u>		BLK4 is Filter
13	1708118 - 05	0.2901	35			blank.
14	1708120 - 01	0.2634	36			B5/B5D1 spiked
15	F708302 - DUPI	0.2888	37			w/ 20 mL of 100 µg/mL
16	F708302 - MS1	0.2867	38			LIMS = 1704421
17	F708302 - MSD1	0.2555	39			
18	1708120 - 02	0.2869	40			<u>CWF</u> <u>8/7/17</u>
19	F708302 - MS2	0.2922	41			
20	F708302 - MSD2	0.2792	42			
21	1708120 - 03	0.2870	43			
22	1708120 - 04	0.2645	44			

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7H10026, 7H10027
Reviewer: 0	Dataset ID(s): THg26003-170810-1
Date: 8/10/2017	WO (s) #: Various
Batch #(s): F707535, F708302	0

Analyst Initials BC Reviewer Initials DM

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: DUP1 was off curve
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
 (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
 (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: <u>BC</u>	Sequence(s) #: <u>7H10026, 7H10027</u>
Reviewer: <u>0</u>	Dataset ID(s): <u>THg26003-170810-1</u>
Date: <u>8/10/2017</u>	WO (s) #: <u>Various</u>
Batch #(s): <u>F707535, F708302</u>	<u>0</u>

Analyst Initials BC Reviewer Initials DM

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| <u>Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs</u> | | | |
| 36. Date of analyst IDOC/CDOC: _____ 1/27/2017 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 5/9/2017 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 5/9/2017 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

THg26003-170823-1



Frontier Global Sciences

Analysis Datasheet for Total Mercury

Date of Analysis: August 23, 2017
 Instrument #: Hg2600-3
 LIMS Sequence #: 7H24011, 7H24012

Analyst: DM2
 Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	56.82 units	113.64	56.56 units	113.12	102.7 %Rec
SEQ-CAL2	1	1.00 ng/L	110.85 units	110.85	110.59 units	110.59	100.4 %Rec
SEQ-CAL3	1	5.00 ng/L	553.90 units	110.78	553.64 units	110.73	100.5 %Rec
SEQ-CAL4	1	20.00 ng/L	2192.80 units	109.64	2192.54 units	109.63	99.5 %Rec
SEQ-CAL5	1	40.00 ng/L	4277.52 units	106.94	4277.26 units	106.93	97.0 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						
Corr. Mean RF		Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF			
110.20		+/- 2.24	2.0% RSD	110.37			

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	0.26 units	±0.45	0.00 ng/L	±0.00

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	2	0.614 ng/L	±0.144
BLK	2	2	0.721 ng/L	±0.229
BLK	3	3	0.821 ng/L	±0.483
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER-REVIEWED

INITIALS: R 8/24/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	DM2	CAL	SEQ-IBL1	1	8/23/2017 8:32:48	73808-1.RAW	8:32:48 AM	0.00			-0.3	-0.002	-0.002		
Hg2600-3	DM2	CAL	SEQ-IBL2	1	8/23/2017 8:36:56	73809-1.RAW	8:36:56 AM	0.78			0.5	0.005	0.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	8/23/2017 8:41:05	73810-1.RAW	8:41:05 AM	0.00			-0.3	-0.002	-0.002	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	8/23/2017 8:45:13	73811-1.RAW	8:45:13 AM	56.82			56.6	0.513	0.513	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	8/23/2017 8:49:21	73812-1.RAW	8:49:21 AM	110.85			110.6	1.004	1.004	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	8/23/2017 8:53:30	73813-1.RAW	8:53:30 AM	553.90			553.6	5.024	5.024	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	8/23/2017 8:57:38	73814-1.RAW	8:57:38 AM	2192.80			2192.5	19.896	19.896	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	8/23/2017 9:01:47	73815-1.RAW	9:01:47 AM	4277.52			4277.3	38.813	38.813	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	8/23/2017 9:05:55	73816-1.RAW	9:05:55 AM	546.39			546.1	4.956	4.956	ng/L	
Hg2600-3	DM2	BLK	F708501-BLK1	10	8/23/2017 9:10:04	73817-1.RAW	9:10:04 AM	8.15	1		7.9	0.072	0.071	ng/L	
Hg2600-3	DM2	BLK	F708501-BLK2	10	8/23/2017 9:14:12	73818-1.RAW	9:14:12 AM	5.90	1		5.6	0.051	0.051	ng/L	
Hg2600-3	DM2	SAM	F708501-BS1	100	8/23/2017 9:18:20	73819-1.RAW	9:18:20 AM	246.77	1		246.5	2.231	2.231	ng/L	
Hg2600-3	DM2	SAM	F708501-BS1	100	8/23/2017 9:22:29	73820-1.RAW	9:22:29 AM	223.83	1		223.6	2.023	2.023	ng/L	
Hg2600-3	DM2	SAM	1708086-04	50	8/23/2017 9:26:37	73821-1.RAW	9:26:37 AM	1189.70	1		1189.4	10.781	539.054	ng/L	
Hg2600-3	DM2	SAM	1708086-05	50	8/23/2017 9:30:46	73822-1.RAW	9:30:46 AM	1241.57	1		1241.3	11.252	562.589	ng/L	
Hg2600-3	DM2	SAM	1708086-06	50	8/23/2017 9:34:54	73823-1.RAW	9:34:54 AM	1238.50	1		1238.2	11.224	561.196	ng/L	
Hg2600-3	DM2	SAM	1708151-01	50	8/23/2017 9:39:03	73824-1.RAW	9:39:03 AM	984.67	1		984.4	8.921	446.031	ng/L	
Hg2600-3	DM2	SAM	1708151-02	50	8/23/2017 9:43:11	73825-1.RAW	9:43:11 AM	1713.56	1		1713.3	15.535	776.738	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	8/23/2017 9:47:19	73826-1.RAW	9:47:19 AM	1649.38	1		1649.1	14.952	747.619	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	8/23/2017 9:51:28	73827-1.RAW	9:51:28 AM	554.53			554.3	5.030	5.030	ng/L	
Hg2600-3	DM2	SAM	1708151-04	50	8/23/2017 9:55:36	73828-1.RAW	9:55:36 AM	4.55			4.3	0.039	0.039	ng/L	
Hg2600-3	DM2	SAM	1708151-05	50	8/23/2017 9:59:45	73829-1.RAW	9:59:45 AM	2201.24	1		2201.0	19.960	998.011	ng/L	
Hg2600-3	DM2	SAM	1708151-06	50	8/23/2017 10:03:53	73830-1.RAW	10:03:53 AM	2067.21	1		2066.9	18.744	937.195	ng/L	
Hg2600-3	DM2	SAM	1708151-07	50	8/23/2017 10:08:01	73831-1.RAW	10:08:01 AM	2065.62	1		2065.4	18.730	936.475	ng/L	
Hg2600-3	DM2	SAM	1708151-08	50	8/23/2017 10:12:10	73832-1.RAW	10:12:10 AM	319.47	1		319.2	2.884	144.219	ng/L	
Hg2600-3	DM2	SAM	1708151-09	50	8/23/2017 10:16:18	73833-1.RAW	10:16:18 AM	1618.69	1		1618.4	14.674	733.696	ng/L	
Hg2600-3	DM2	SAM	1708151-10	50	8/23/2017 10:20:27	73834-1.RAW	10:20:27 AM	1198.75	1		1198.5	10.863	543.161	ng/L	
Hg2600-3	DM2	SAM	1708151-11	50	8/23/2017 10:24:35	73835-1.RAW	10:24:35 AM	1609.36	1		1609.1	14.589	729.462	ng/L	
Hg2600-3	DM2	SAM	1708151-12	50	8/23/2017 10:28:44	73836-1.RAW	10:28:44 AM	1261.64	1		1261.4	11.434	571.698	ng/L	
Hg2600-3	DM2	SAM	1708151-13	50	8/23/2017 10:32:52	73837-1.RAW	10:32:52 AM	1784.23	1		1784.0	16.176	808.803	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	8/23/2017 10:37:00	73838-1.RAW	10:37:00 AM	1134.13	1		1133.9	10.277	513.844	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	8/23/2017 10:41:09	73839-1.RAW	10:41:09 AM	546.48			546.2	4.957	4.957	ng/L	
Hg2600-3	DM2	SAM	1708151-14	50	8/23/2017 10:45:17	73840-1.RAW	10:45:17 AM	6.11			5.9	0.053	0.053	ng/L	
Hg2600-3	DM2	SAM	1708151-15	50	8/23/2017 10:49:26	73841-1.RAW	10:49:26 AM	2967.06	1		2966.8	26.910	1345.477	ng/L	
Hg2600-3	DM2	SAM	1708151-16	50	8/23/2017 10:53:34	73842-1.RAW	10:53:34 AM	135.10	1		134.8	1.211	60.565	ng/L	
Hg2600-3	DM2	SAM	1708151-17	50	8/23/2017 10:57:42	73843-1.RAW	10:57:42 AM	169.34	1		169.1	1.522	76.101	ng/L	
Hg2600-3	DM2	SAM	1708151-18	50	8/23/2017 11:01:51	73844-1.RAW	11:01:51 AM	292.46	1		292.2	2.639	131.961	ng/L	
Hg2600-3	DM2	SAM	F708501-MS1	400	8/23/2017 11:05:59	73845-1.RAW	11:05:59 AM	744.22	1		744.0	6.749	2699.770	ng/L	
Hg2600-3	DM2	SAM	F708501-MS2	400	8/23/2017 11:10:08	73846-1.RAW	11:10:08 AM	765.52	1		765.3	6.943	2777.071	ng/L	
Hg2600-3	DM2	SAM	F708501-MSD2	400	8/23/2017 11:14:16	73847-1.RAW	11:14:16 AM	778.13	1		777.9	7.057	2822.836	ng/L	
Hg2600-3	DM2	BLK	F708500-BLK1	10	8/23/2017 11:18:25	73848-1.RAW	11:18:25 AM	751.96	1		751.7	6.820	2727.852	ng/L	
Hg2600-3	DM2	BLK	F708500-BLK2	10	8/23/2017 11:22:33	73849-1.RAW	11:22:33 AM	9.99	2		9.7	0.088	0.088	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	8/23/2017 11:26:41	73850-1.RAW	11:26:41 AM	6.42	2		6.2	0.056	0.056	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	8/23/2017 11:30:50	73851-1.RAW	11:30:50 AM	541.60			541.3	4.912	4.912	ng/L	
Hg2600-3	DM2	SAM	F708500-BS1	100	8/23/2017 11:34:58	73852-1.RAW	11:34:58 AM	4.44			4.2	0.038	0.038	ng/L	
Hg2600-3	DM2	SAM	F708500-BS1	100	8/23/2017 11:39:07	73853-1.RAW	11:39:07 AM	240.29	2		240.0	2.171	217.095	ng/L	
Hg2600-3	DM2	SAM	1707810-13	50	8/23/2017 11:43:15	73854-1.RAW	11:43:15 AM	233.25	2		233.0	2.107	210.706	ng/L	
Hg2600-3	DM2	SAM	1707810-14	50	8/23/2017 11:47:23	73855-1.RAW	11:47:23 AM	116.63	2		116.4	1.042	52.079	ng/L	
Hg2600-3	DM2	SAM	1707810-15	50	8/23/2017 11:51:32	73856-1.RAW	11:51:32 AM	152.21	2		151.9	1.364	68.220	ng/L	
Hg2600-3	DM2	SAM	1707810-16	50	8/23/2017 11:55:40	73857-1.RAW	11:55:40 AM	450.12	2		449.9	4.068	203.390	ng/L	
Hg2600-3	DM2	SAM	1707810-17	50	8/23/2017 11:59:49	73858-1.RAW	11:59:49 AM	1986.30	2		1986.0	18.008	900.378	ng/L	
Hg2600-3	DM2	SAM	1707810-18	50	8/23/2017 12:03:57	73859-1.RAW	12:03:57 PM	325.89	2		325.6	2.940	147.021	ng/L	
Hg2600-3	DM2	SAM	1707810-19	50	8/23/2017 12:08:06	73860-1.RAW	12:08:06 PM	2072.15	2		2071.9	18.787	939.331	ng/L	
Hg2600-3	DM2	SAM	1707810-20	50	8/23/2017 12:12:14	73861-1.RAW	12:12:14 PM	2142.71	2		2142.4	19.427	971.343	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	8/23/2017 12:16:22	73862-1.RAW	12:16:22 PM	2586.86	2		2586.6	23.457	1172.863	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	8/23/2017 12:20:31	73863-1.RAW	12:20:31 PM	557.89			557.6	5.060	5.060	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	8/23/2017 12:24:39	73864-1.RAW	12:24:39 PM	8.11			7.9	0.071	0.071	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-3	DM2	SAM	1707810-21	50	8/23/2017 12:28:48	73865-1.RAW	12:28:48 PM	2032.21	2		2032.0	18.424	921.212	ng/L	
Hg2600-3	DM2	SAM	1707810-22	50	8/23/2017 12:32:56	73866-1.RAW	12:32:56 PM	2725.93	2		2725.7	24.719	1235.960	ng/L	
Hg2600-3	DM2	SAM	1707810-23	50	8/23/2017 12:37:05	73867-1.RAW	12:37:05 PM	4878.36	2		4878.1	44.251	2212.555	ng/L	
Hg2600-3	DM2	SAM	1707810-24	50	8/23/2017 12:41:13	73868-1.RAW	12:41:13 PM	1820.09	2		1819.8	16.499	824.965	ng/L	
Hg2600-3	DM2	SAM	1707810-25	50	8/23/2017 12:45:21	73869-1.RAW	12:45:21 PM	4278.50	2		4278.2	38.808	1940.390	ng/L	
Hg2600-3	DM2	SAM	1707810-26	50	8/23/2017 12:49:30	73870-1.RAW	12:49:30 PM	2759.79	2		2759.5	25.026	1251.323	ng/L	
Hg2600-3	DM2	SAM	1707810-27	50	8/23/2017 12:53:38	73871-1.RAW	12:53:38 PM	6300.48	2		6300.2	57.156	2857.798	ng/L	
Hg2600-3	DM2	SAM	1707810-28	50	8/23/2017 12:57:47	73872-1.RAW	12:57:47 PM	122.77	2		122.5	1.097	54.862	ng/L	
Hg2600-3	DM2	SAM	1707810-29	50	8/23/2017 13:01:55	73873-1.RAW	1:01:55 PM	118.06	2		117.8	1.055	52.728	ng/L	
Hg2600-3	DM2	SAM	1708086-01	50	8/23/2017 13:06:03	73874-1.RAW	1:06:03 PM	1710.67	2		1710.4	15.506	775.319	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	8/23/2017 13:10:12	73875-1.RAW	1:10:12 PM	558.3504629			558.1	5.064	5.064	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	8/23/2017 13:14:20	73876-1.RAW	1:14:20 PM	8.31			8.1	0.073	0.073	ng/L	
Hg2600-3	DM2	SAM	1708086-02	50	8/23/2017 13:18:29	73877-1.RAW	1:18:29 PM	1474.35	2		1474.1	13.362	668.098	ng/L	
Hg2600-3	DM2	SAM	1708086-03	50	8/23/2017 13:22:37	73878-1.RAW	1:22:37 PM	1719.67	2		1719.4	15.588	779.406	ng/L	
Hg2600-3	DM2	SAM	1707810-23RE1	100	8/23/2017 13:26:45	73879-1.RAW	1:26:45 PM	2458.93	2		2458.7	22.304	2230.360	ng/L	
Hg2600-3	DM2	SAM	1707810-24RE1	50	8/23/2017 13:30:54	73880-1.RAW	1:30:54 PM	1839.53	2		1839.3	16.676	833.788	ng/L	
Hg2600-3	DM2	SAM	1707810-27RE1	100	8/23/2017 13:35:02	73881-1.RAW	1:35:02 PM	3070.59	2		3070.3	27.854	2785.403	ng/L	
Hg2600-3	DM2	SAM	1707810-28RE1	50	8/23/2017 13:39:11	73882-1.RAW	1:39:11 PM	107.31	2		107.1	0.957	47.850	ng/L	
Hg2600-3	DM2	SAM	F708500-MS1	400	8/23/2017 13:43:19	73883-1.RAW	1:43:19 PM	860.63	2		860.4	7.806	3122.200	ng/L	
Hg2600-3	DM2	SAM	F708500-MSD1	400	8/23/2017 13:47:28	73884-1.RAW	1:47:28 PM	918.79	2		918.5	8.333	3333.298	ng/L	
Hg2600-3	DM2	SAM	F708500-MS2	400	8/23/2017 13:51:36	73885-1.RAW	1:51:36 PM	807.39	2		807.1	7.322	2928.965	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	8/23/2017 13:55:45	73886-1.RAW	1:55:45 PM	821.53	2		821.3	7.451	2980.273	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	8/23/2017 13:59:54	73887-1.RAW	1:59:54 PM	552.13			551.9	5.008	5.008	ng/L	
Hg2600-3	DM2	BLK	F708459-BLK1	20	8/23/2017 14:04:02	73888-1.RAW	2:04:02 PM	5.47			5.2	0.047	0.047	ng/L	
Hg2600-3	DM2	BLK	F708459-BLK2	20	8/23/2017 14:08:11	73889-1.RAW	2:08:11 PM	5.08	3		4.8	0.044	0.875	ng/L	
Hg2600-3	DM2	BLK	F708459-BLK3	20	8/23/2017 14:12:19	73890-1.RAW	2:12:19 PM	7.29	3		7.0	0.064	1.276	ng/L	
Hg2600-3	DM2	SAM	*F708459-BLK4	20	8/23/2017 14:16:28	73891-1.RAW	2:16:28 PM	1.99	3		1.7	0.016	0.313	ng/L	
Hg2600-3	DM2	SAM	*F708459-BLK5	20	8/23/2017 14:21:11	73892-2.RAW	2:21:11 PM	3.90	3		3.6	-0.008	-0.161	ng/L	
Hg2600-3	DM2	SAM	F708459-BS1	20	8/23/2017 14:25:20	73893-1.RAW	2:25:20 PM	4.29	3		4.0	-0.004	-0.089	ng/L	
Hg2600-3	DM2	SAM	F708459-BSD1	20	8/23/2017 14:29:28	73894-1.RAW	2:29:28 PM	563.26	3		563.0	5.068	101.355	ng/L	
Hg2600-3	DM2	SAM	F708459-BS2	400	8/23/2017 14:33:37	73895-1.RAW	2:33:37 PM	518.84	3		518.6	4.665	93.295	ng/L	
Hg2600-3	DM2	SAM	1708118-03RE2	100	8/23/2017 14:37:45	73896-1.RAW	2:37:45 PM	585.35	3		585.1	5.307	2122.901	ng/L	
Hg2600-3	DM2	SAM	1708241-01	100	8/23/2017 14:41:54	73897-1.RAW	2:41:54 PM	474.58	3		474.3	4.296	429.591	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	8/23/2017 14:46:02	73898-1.RAW	2:46:02 PM	219.22	3		219.0	1.979	197.868	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	8/23/2017 14:50:11	73899-1.RAW	2:50:11 PM	547.26			547.0	4.964	4.964	ng/L	
Hg2600-3	DM2	SAM	1708241-02	100	8/23/2017 14:54:19	73900-1.RAW	2:54:19 PM	4.86			4.6	0.042	0.042	ng/L	
Hg2600-3	DM2	SAM	1708241-03	100	8/23/2017 14:58:28	73901-1.RAW	2:58:28 PM	370.22	3		370.0	3.349	334.894	ng/L	
Hg2600-3	DM2	SAM	1708241-04	100	8/23/2017 15:02:36	73902-1.RAW	3:02:36 PM	439.34	3		439.1	3.976	397.612	ng/L	
Hg2600-3	DM2	SAM	1708241-05	100	8/23/2017 15:06:44	73903-1.RAW	3:06:44 PM	555.33	3		555.1	5.029	502.872	ng/L	
Hg2600-3	DM2	SAM	1708241-06	100	8/23/2017 15:10:53	73904-1.RAW	3:10:53 PM	570.35	3		570.1	5.165	516.498	ng/L	
Hg2600-3	DM2	SAM	1708241-07	100	8/23/2017 15:15:01	73905-1.RAW	3:15:01 PM	206.47	3		206.2	1.863	186.301	ng/L	
Hg2600-3	DM2	SAM	1708241-08	100	8/23/2017 15:19:10	73906-1.RAW	3:19:10 PM	193.55	3		193.3	1.746	174.579	ng/L	
Hg2600-3	DM2	SAM	1708241-09	100	8/23/2017 15:23:18	73907-1.RAW	3:23:18 PM	143.31	3		143.1	1.290	128.991	ng/L	
Hg2600-3	DM2	SAM	1708241-10	100	8/23/2017 15:27:27	73908-1.RAW	3:27:27 PM	189.63	3		189.4	1.710	171.019	ng/L	
Hg2600-3	DM2	SAM	1708241-11	100	8/23/2017 15:31:35	73909-1.RAW	3:31:35 PM	154.31	3		154.1	1.390	138.971	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	8/23/2017 15:35:44	73910-1.RAW	3:35:44 PM	252.71	3		252.4	2.283	228.259	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	8/23/2017 15:39:52	73911-1.RAW	3:39:52 PM	542.66			542.4	4.922	4.922	ng/L	
Hg2600-3	DM2	SAM	1708241-12	100	8/23/2017 15:44:00	73912-1.RAW	3:44:00 PM	8.32			8.1	0.073	0.073	ng/L	
Hg2600-3	DM2	SAM	1708241-13	100	8/23/2017 15:48:09	73913-1.RAW	3:48:09 PM	310.16	3		309.9	2.804	280.392	ng/L	
Hg2600-3	DM2	SAM	1708241-14	100	8/23/2017 15:52:17	73914-1.RAW	3:52:17 PM	204.16	3		203.9	1.842	184.205	ng/L	
Hg2600-3	DM2	SAM	1708241-15	100	8/23/2017 15:56:26	73915-1.RAW	3:56:26 PM	198.09	3		197.8	1.787	178.696	ng/L	
Hg2600-3	DM2	SAM	F708459-DUP1	100	8/23/2017 16:00:34	73916-1.RAW	4:00:34 PM	276.42	3		276.2	2.498	249.773	ng/L	
Hg2600-3	DM2	SAM	F708459-MS1	400	8/23/2017 16:04:43	73917-1.RAW	4:04:43 PM	427.58	3		427.3	3.869	386.946	ng/L	
Hg2600-3	DM2	SAM	F708459-MSD1	400	8/23/2017 16:08:51	73918-1.RAW	4:08:51 PM	1338.07	3		1337.8	12.138	4855.093	ng/L	
Hg2600-3	DM2	SAM	F708459-MS2	400	8/23/2017 16:12:59	73919-1.RAW	4:12:59 PM	1307.92	3		1307.7	11.864	4745.625	ng/L	
Hg2600-3	DM2	SAM	F708459-MSD2	400	8/23/2017 16:17:08	73920-1.RAW	4:17:08 PM	1270.83	3		1270.6	11.528	4611.032	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	8/23/2017 16:21:16	73921-1.RAW	4:21:16 PM	1241.34	3		1241.1	11.260	4503.958	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	8/23/2017 16:25:25	73922-1.RAW	4:25:25 PM	571.65			571.4	5.185	5.185	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	8/23/2017 16:29:33	73923-1.RAW	4:29:33 PM	5.05			4.8	0.043	0.043	ng/L	

TotalMercury EPA1631
 Operatr DM
 BlankS: 0.2598
 Calib Eqn: Conc = (Area-0.259
 Run Date: 8/23/2017
 Blank SD: 0.449999382
 Worksh THg2600
 CalibFa 110.2
 Status: QC Warnings:3/QC E
 Run Time: 14:17:02
 Blank RSD%: 173.2050808
 Method ##### R: 0.9999
 R²: 0.9999
 CF SD: 2.236003475
 CF RSD%: 2.02902612
 Descrip THg26003-170823-1

Sample/ID	Location Rinse	Dilute	Blank	Conc:(ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean			0.00	1.59					73803-1.RAW	8:13:23	175.12	Clean	OK	1
clean									73804-1.RAW	8:16:14	0.00	Clean	NP	1
ws			0.26	0.02					73805-1.RAW	8:20:23	2.15	Sample	OK	1
ws									73806-1.RAW	8:24:31	0.00	Sample	NP	1
ws									73807-1.RAW	8:28:39	0.00	Sample	NP	1
SEQ-IBL1	A1	1							73808-1.RAW	8:32:48	0.00	Sample	NP	1
SEQ-IBL2	A2	1	0.00	0.01					73809-1.RAW	8:36:56	0.78	Sample	OK	1
SEQ-IBL3	A3	1							73810-1.RAW	8:41:05	0.00	Sample	NP	1
SEQ-CAL1	A4	1	0.26	0.51		102.65			73811-1.RAW	8:45:13	56.82	Sample	OK	1
SEQ-CAL2	A5	1	0.26	1.00		100.35			73812-1.RAW	8:49:21	110.85	Sample	OK	1
SEQ-CAL3	A6	1	0.26	5.02		100.48			73813-1.RAW	8:53:30	553.90	Sample	OK	1
SEQ-CAL4	A7	1	0.26	19.90		99.48			73814-1.RAW	8:57:38	2192.80	Sample	OK	1
SEQ-CAL5	A8	1	0.26	38.81		97.03			73815-1.RAW	9:01:47	4277.52	Sample	OK	1
SEQ-ICV1	A9	1	0.26	4.96		99.12			73816-1.RAW	9:05:55	546.39	Sample	OK	1
F708501-BLK1	A10	10	0.26	0.72					73817-1.RAW	9:10:04	8.15	Sample	OK	1
F708501-BLK2	A11	10	0.26	0.51					73818-1.RAW	9:14:12	5.90	Sample	OK	1
F708501-BS1	A12	100	0.26	223.69					73819-1.RAW	9:18:20	246.77	Sample	OK	1
F708501-BSD1	B1	100	0.26	202.88					73820-1.RAW	9:22:29	223.83	Sample	OK	1
1708086-04	B2	50	0.26	539.67					73821-1.RAW	9:26:37	1189.70	Sample	OK	1
1708086-05	B3	50	0.26	563.20					73822-1.RAW	9:30:46	1241.57	Sample	OK	1
1708086-06	B4	50	0.26	561.81					73823-1.RAW	9:34:54	1238.50	Sample	OK	1
1708151-01	B5	50	0.26	446.65					73824-1.RAW	9:39:03	984.67	Sample	OK	1
1708151-02	B6	50	0.26	777.35					73825-1.RAW	9:43:11	1713.56	Sample	OK	1
1708151-03	B7	50	0.26	748.23					73826-1.RAW	9:47:19	1649.38	Sample	OK	1
SEQ-CCV1	B8	1	0.26	5.03		100.59			73827-1.RAW	9:51:28	554.53	Sample	OK	1
SEQ-CCB1	B9	1	0.26	0.04		0.00			73828-1.RAW	9:55:36	4.55	Sample	OK	1
1708151-04	B10	50	0.26	998.62					73829-1.RAW	9:59:45	2201.24	Sample	OK	1
1708151-05	B11	50	0.26	937.81					73830-1.RAW	10:03:53	2067.21	Sample	OK	1
1708151-06	B12	50	0.26	937.09					73831-1.RAW	10:08:01	2065.62	Sample	OK	1
1708151-07	C1	50	0.26	144.83					73832-1.RAW	10:12:10	319.47	Sample	OK	1
1708151-08	C2	50	0.26	734.31					73833-1.RAW	10:16:18	1618.69	Sample	OK	1
1708151-09	C3	50	0.26	543.77					73834-1.RAW	10:20:27	1198.75	Sample	OK	1
1708151-10	C4	50	0.26	730.08					73835-1.RAW	10:24:35	1609.36	Sample	OK	1
1708151-11	C5	50	0.26	572.31					73836-1.RAW	10:28:44	1261.64	Sample	OK	1
1708151-12	C6	50	0.26	809.42					73837-1.RAW	10:32:52	1784.23	Sample	OK	1
1708151-13	C7	50	0.26	514.46					73838-1.RAW	10:37:00	1134.13	Sample	OK	1
SEQ-CCV2	C8	1	0.26	4.96		99.13			73839-1.RAW	10:41:09	546.48	Sample	OK	1
SEQ-CCB2	C9	1	0.26	0.05		0.00			73840-1.RAW	10:45:17	6.11	Sample	OK	1
1708151-14	C10	50	0.26	1346.09					73841-1.RAW	10:49:26	2967.06	Sample	OK	1
1708151-15	C11	50	0.26	61.18					73842-1.RAW	10:53:34	135.10	Sample	OK	1
1708151-16	C12	50	0.26	76.71					73843-1.RAW	10:57:42	169.34	Sample	OK	1
1708151-17	D1	50	0.26	132.57					73844-1.RAW	11:01:51	292.46	Sample	OK	1
F708501-MS1	D2	400	0.26	2700.38		2021.63			73845-1.RAW	11:05:59	744.22	Sample	OK	1

F708501-MSD1	D3	400	0.26	2777.69		73846-1.RAW	11:10:08	765.52	Sample	OK	1
F708501-MS2	D4	400	0.26	2823.45	101.57	73847-1.RAW	11:14:16	778.13	Sample	OK	1
F708501-MSD2	D5	400	0.26	2728.47		73848-1.RAW	11:18:25	751.96	Sample	OK	1
F708500-BLK1	D6	10	0.26	0.88		73849-1.RAW	11:22:33	9.99	Sample	OK	1
F708500-BLK2	D7	10	0.26	0.56		73850-1.RAW	11:26:41	6.42	Sample	OK	1
SEQ-CCV3	D8	1	0.26	4.91	98.25	73851-1.RAW	11:30:50	541.60	Sample	OK	1
SEQ-CCB3	D9	1	0.26	0.04	0.00	73852-1.RAW	11:34:58	4.44	Sample	OK	1
F708500-BS1	D10	100	0.26	217.82		73853-1.RAW	11:39:07	240.29	Sample	OK	1
F708500-BSD1	D11	100	0.26	211.43		73854-1.RAW	11:43:15	233.25	Sample	OK	1
1707810-13	D12	50	0.26	52.80		73855-1.RAW	11:47:23	116.63	Sample	OK	1
1707810-14	A1	50	0.26	68.94		73856-1.RAW	11:51:32	152.21	Sample	OK	1
1707810-15	A2	50	0.26	204.11		73857-1.RAW	11:55:40	450.12	Sample	OK	1
1707810-16	A3	50	0.26	901.10		73858-1.RAW	11:59:49	1986.30	Sample	OK	1
1707810-17	A4	50	0.26	147.74		73859-1.RAW	12:03:57	325.89	Sample	OK	1
1707810-18	A5	50	0.26	940.05		73860-1.RAW	12:08:06	2072.15	Sample	OK	1
1707810-19	A6	50	0.26	972.06		73861-1.RAW	12:12:14	2142.71	Sample	OK	1
1707810-20	A7	50	0.26	1173.58		73862-1.RAW	12:16:22	2586.86	Sample	OK	1
SEQ-CCV4	A8	1	0.26	5.06	101.20	73863-1.RAW	12:20:31	557.89	Sample	OK	1
SEQ-CCB4	A9	1	0.26	0.07	0.00	73864-1.RAW	12:24:39	8.11	Sample	OK	1
1707810-21	A10	50	0.26	921.93		73865-1.RAW	12:28:48	2032.21		OK	1
1707810-22	A11	50	0.26	1236.68		73866-1.RAW	12:32:56	2725.93	Sample	OK	1
1707810-23	A12	50	0.26	2213.28		73867-1.RAW	12:37:05	4878.36	Sample	OK	1
1707810-24	B1	50	0.26	825.69		73868-1.RAW	12:41:13	1820.09	Sample	OK	1
1707810-25	B2	50	0.26	1941.11		73869-1.RAW	12:45:21	4278.50	Sample	OK	1
1707810-26	B3	50	0.26	1252.04		73870-1.RAW	12:49:30	2759.79	Sample	OK	1
1707810-27	B4	50	0.26	2858.52		73871-1.RAW	12:53:38	6300.48	Sample	FB	1
1707810-28	B5	50	0.26	55.58		73872-1.RAW	12:57:47	122.77	Sample	OK	1
1707810-29	B6	50	0.26	53.45		73873-1.RAW	13:01:55	118.06	Sample	OK	1
1708086-01	B7	50	0.26	776.04		73874-1.RAW	13:06:03	1710.67	Sample	OK	1
SEQ-CCV5	B8	1	0.26	5.06	101.29	73875-1.RAW	13:10:12	558.35	Sample	OK	1
SEQ-CCB5	B9	1	0.26	0.07	0.00	73876-1.RAW	13:14:20	8.31	Sample	OK	1
1708086-02	B10	50	0.26	668.82		73877-1.RAW	13:18:29	1474.35	Sample	OK	1
1708086-03	B11	50	0.26	780.13		73878-1.RAW	13:22:37	1719.67	Sample	OK	1
1707810-23RE1	B12	100	0.26	2231.08		73879-1.RAW	13:26:45	2458.93	Sample	OK	1
1707810-24RE1	C1	50	0.26	834.51		73880-1.RAW	13:30:54	1839.53	Sample	OK	1
1707810-27RE1	C2	100	0.26	2786.12		73881-1.RAW	13:35:02	3070.59	Sample	OK	1
1707810-28RE1	C3	50	0.26	48.57		73882-1.RAW	13:39:11	107.31	Sample	OK	1
F708500-MS1	C4	400	0.26	3122.92	6299.87	73883-1.RAW	13:43:19	860.63	Sample	OK	1
F708500-MSD1	C5	400	0.26	3334.02		73884-1.RAW	13:47:28	918.79	Sample	OK	1
F708500-MS2	C6	400	0.26	2929.69	87.82	73885-1.RAW	13:51:36	807.39	Sample	OK	1
F708500-MSD2	C7	400	0.26	2980.99		73886-1.RAW	13:55:45	821.53	Sample	OK	1
SEQ-CCV6	C8	1	0.26	5.01	100.16	73887-1.RAW	13:59:54	552.13	Sample	OK	1
SEQ-CCB6	C9	1	0.26	0.05	0.00	73888-1.RAW	14:04:02	5.47	Sample	OK	1
F708459-BLK1	C10	20	0.26	0.87		73889-1.RAW	14:08:11	5.08	Sample	OK	1
F708459-BLK2	C11	20	0.26	1.28		73890-1.RAW	14:12:19	7.29	Sample	OK	1
F708459-BLK3	C12	20	0.26	0.31		73891-1.RAW	14:16:28	1.99	Sample	OK	1
*F708459-BLK4	D1	20	0.26	0.66		73892-2.RAW	14:21:11	3.90	Sample	OK	1
*F708459-BLK5	D2	20	0.26	0.73		73893-1.RAW	14:25:20	4.29	Sample	OK	1

F708459-BS1	D3	20	0.26	102.18		73894-1.RAW	14:29:28	563.26	Sample	OK	1
F708459-BS1	D4	20	0.26	94.12		73895-1.RAW	14:33:37	518.84	Sample	OK	1
F708459-BS2	D5	400	0.26	2123.72		73896-1.RAW	14:37:45	585.35	Sample	OK	1
1708118-03RE2	D6	100	0.26	430.41		73897-1.RAW	14:41:54	474.58	Sample	OK	1
1708241-01	D7	100	0.26	198.69		73898-1.RAW	14:46:02	219.22	Sample	OK	1
SEQ-CCV7	D8	1	0.26	4.96	99.27	73899-1.RAW	14:50:11	547.26	Sample	OK	1
SEQ-CCB7	D9	1	0.26	0.04	0.00	73900-1.RAW	14:54:19	4.86	Sample	OK	1
1708241-02	D10	100	0.26	335.72		73901-1.RAW	14:58:28	370.22	Sample	OK	1
1708241-03	D11	100	0.26	398.43		73902-1.RAW	15:02:36	439.34	Sample	OK	1
1708241-04	D12	100	0.26	503.69		73903-1.RAW	15:06:44	555.33	Sample	OK	1
1708241-05	A1	100	0.26	517.32		73904-1.RAW	15:10:53	570.35	Sample	OK	1
1708241-06	A2	100	0.26	187.12		73905-1.RAW	15:15:01	206.47	Sample	OK	1
1708241-07	A3	100	0.26	175.40		73906-1.RAW	15:19:10	193.55	Sample	OK	1
1708241-08	A4	100	0.26	129.81		73907-1.RAW	15:23:18	143.31	Sample	OK	1
1708241-09	A5	100	0.26	171.84		73908-1.RAW	15:27:27	189.63	Sample	OK	1
1708241-10	A6	100	0.26	139.79		73909-1.RAW	15:31:35	154.31	Sample	OK	1
1708241-11	A7	100	0.26	229.08		73910-1.RAW	15:35:44	252.71	Sample	OK	1
SEQ-CCV8	A8	1	0.26	4.92	98.44	73911-1.RAW	15:39:52	542.66	Sample	OK	1
SEQ-CCB8	A9	1	0.26	0.07	0.00	73912-1.RAW	15:44:00	8.32	Sample	OK	1
1708241-12	A10	100	0.26	281.21		73913-1.RAW	15:48:09	310.16	Sample	OK	1
1708241-13	A11	100	0.26	185.03		73914-1.RAW	15:52:17	204.16	Sample	OK	1
1708241-14	A12	100	0.26	179.52		73915-1.RAW	15:56:26	198.09	Sample	OK	1
1708241-15	B1	100	0.26	250.59		73916-1.RAW	16:00:34	276.42	Sample	OK	1
F708459-DUP1	B2	100	0.26	387.77		73917-1.RAW	16:04:43	427.58	Sample	OK	1
F708459-MS1	B3	400	0.26	4855.91	1249.05	73918-1.RAW	16:08:51	1338.07	Sample	OK	1
F708459-MSD1	B4	400	0.26	4746.45		73919-1.RAW	16:12:59	1307.92	Sample	OK	1
F708459-MS2	B5	400	0.26	4611.85	97.12	73920-1.RAW	16:17:08	1270.83	Sample	OK	1
F708459-MSD2	B6	400	0.26	4504.78		73921-1.RAW	16:21:16	1241.34	Sample	OK	1
SEQ-CCV9	B7	1	0.26	5.18	103.70	73922-1.RAW	16:25:25	571.65	Sample	OK	1
SEQ-CCB9	B8	1	0.26	0.04	0.00	73923-1.RAW	16:29:33	5.05	Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7H24011

PEER-REVIEWED

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *R 8/24/17* Analyzed: 8/23/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H24011-JBL1 ✓	QC	1			
7H24011-JBL2 ✓	QC	2			
7H24011-JBL3 ✓	QC	3			
7H24011-CAL1 ✓	QC	4	1704505 ✓		
7H24011-CAL2 ✓	QC	5	1704506 ✓		
7H24011-CAL3 ✓	QC	6	1704507 ✓		
7H24011-CAL4 ✓	QC	7	1704508 ✓		
7H24011-CAL5 ✓	QC	8	1704509 ✓		
7H24011-ICV1 ✓	QC	9	1703679 ✓		
7H24011-CCV1 ✓	QC	10	1703679 ✓		
7H24011-CCB1 ✓	QC	11			
7H24011-CCV2 ✓	QC	12	1703679 ✓		
7H24011-CCB2 ✓	QC	13			
7H24011-CCV3 ✓	QC	14	1703679 ✓		
7H24011-CCB3 ✓	QC	15			
7H24011-CCV4 ✓	QC	16	1703679 ✓		
7H24011-CCB4 ✓	QC	17			
7H24011-CCV5 ✓	QC	18	1703679 ✓		
7H24011-CCB5 ✓	QC	19			
7H24011-CCV6 ✓	QC	20	1703679 ✓		
7H24011-CCB6 ✓	QC	21			
F708459-BLK1 ✓	QC	22			
F708459-BLK2 ✓	QC	23			
F708459-BLK3 ✓	QC	24			
F708459-BLK4 ✓	QC	25			
F708459-BLK5 ✓	QC	26			
F708459-BS1 ✓	QC	27			
F708459-BSD1 ✓	QC	28			
F708459-BS2 ✓	QC	29			
1708118-03RE2 ✓	Hg-CVAFS-T-7030	30			QC required for sample, see MMO notes. PL 8/17/17
1708241-01 ✓	Hg-CVAFS-T-7030	31			
7H24011-CCV7 ✓	QC	32	1703679 ✓		
7H24011-CCB7 ✓	QC	33			
1708241-02 ✓	Hg-CVAFS-T-7030	34			
1708241-03 ✓	Hg-CVAFS-T-7030	35			

PREPARATION BENCH SHEET

F708459

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/17/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708459-BLK1	Blank	0.5	20					
F708459-BLK2	Blank	0.5	20					
F708459-BLK3	Blank	0.5	20					
F708459-BLK4	Pre-BLK for 1708241	0.2753	20					
F708459-BLK5	Post-BLK for 1708241	0.252	20					
F708459-BS1	LCS	0.2965	20	1704421	20			
F708459-BS2	LCS	0.1323	20	1703305	132.3			
F708459-BSD1	LCS Dup	0.2825	20	1704421	20			
F708459-DUP1	Duplicate [1708118-03RE2]	0.2512	20					
F708459-MS1	Matrix Spike [1708118-03RE2]	0.258	20	1701763	100			
F708459-MS2	Matrix Spike [1708241-01]	0.2717	20	1701763	100			
F708459-MSD1	Matrix Spike Dup [1708118-03RE2]	0.2624	20	1701763	100			
F708459-MSD2	Matrix Spike Dup [1708241-01]	0.2544	20	1701763	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703305	DORM-4	29-May-20 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1704516	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1704956	3% SnCl2 THg reductant	29-Jan-18 00:00
			1704958	5% BrCl	18-Dec-17 00:00
			1705022	70/30 Digestion Acid	13-Feb-18 00:00

Due Date: 8/31/2017

PREPARATION BENCH SHEET

F708459

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/17/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708118-03RE2	OB-01_17HC001_072517_POL_03_WB	0.2884	20	-	-	-	QC required for sample, see MMO note	
1708241-01	ES-02E_17HC001_073117_POL_01_WB	0.3855	20	QC	-	-	MS/MSD	
1708241-02	ES-02E_17HC001_073117_POL_02_WB	0.2726	20	-	-	-		
1708241-03	ES-02E_17HC001_073117_POL_03_WB	0.2672	20	-	-	-		
1708241-04	ES-02E_17HC001_073117_POL_04_WB	0.3195	20	-	-	-		
1708241-05	ES-02E_17HC001_073117_POL_05_WB	0.266	20	-	-	-		
1708241-06	ESFP_17HC001_072817_POL_01_WB	0.2898	20	-	-	-		
1708241-07	ESFP_17HC001_072817_POL_02_WB	0.2908	20	-	-	-		
1708241-08	ESFP_17HC001_072817_POL_03_WB	0.2656	20	-	-	-		
1708241-09	ESFP_17HC001_072817_POL_04_WB	0.2659	20	-	-	-		
1708241-10	ESFP_17HC001_072817_POL_05_WB	0.3108	20	-	-	-		
1708241-11	BFK_17HC001_073117_POL_01_WB	0.2595	20	-	-	-		
1708241-12	BFK_17HC001_073117_POL_02_WB	0.264	20	-	-	-		
1708241-13	BFK_17HC001_073117_POL_03_WB	0.2505	20	-	-	-		
1708241-14	BFK_17HC001_073117_POL_04_WB	0.2883	20	-	-	-		
1708241-15	BFK_17HC001_073117_POL_05_WB	0.2733	20	-	-	-		



PREPARATION BENCH SHEET

F708459

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/17/2017

Due Date: 8/31/2017

PREPARATION BENCH SHEET

2600-3
8/23/17 DM

F708459

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/17/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708459-BLK1	Blank	0.5	20					20X
F708459-BLK2	Blank	0.5	20					20X
F708459-BLK3	Blank	0.5	20					20X
F708459-BLK4	Pre-BLK for 1708241	0.2753	20					20X
F708459-BLK5	Post-BLK for 1708241	0.252	20					20X
F708459-BS1	LCS	0.2965	20	1704421	20			20X
F708459-BS2	LCS	0.1323	20	1703305	132.3			400X
F708459-BSD1	LCS Dup	0.2825	20	1704421	20			20X
F708459-DUP1	Duplicate [1708118-03RE2]	0.2512	20					100X
F708459-MS1	Matrix Spike [1708118-03RE2]	0.258	20	1701763	100			400X
F708459-MS2	Matrix Spike [1708241-01]	0.2717	20	1701763	100			400X
F708459-MSD1	Matrix Spike Dup [1708118-03RE2]	0.2624	20	1701763	100			400X
F708459-MSD2	Matrix Spike Dup [1708241-01]	0.2544	20	1701763	100			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1703305	DORM-4	29-May-20 00:00	1704958	5% BrCl	18-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1705022	70/30 Digestion Acid	13-Feb-18 00:00

1704517
1704516
1703152
1704956

Due Date: 8/31/2017

PREPARATION BENCH SHEET

2000-3
8/23/17 DM

F708459

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/17/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708118-03RE2	OB-01_17HC001_072517_POL_03_WB	0.2884	20	-	-	-	QC required for sample, see MMO note	100X -
1708241-01	ES-02E_17HC001_073117_POL_01_WB	0.3855	20	QC	-	-	MS/MSD	100X -
1708241-02	ES-02E_17HC001_073117_POL_02_WB	0.2726	20	-	-	-		100X -
1708241-03	ES-02E_17HC001_073117_POL_03_WB	0.2672	20	-	-	-		100X -
1708241-04	ES-02E_17HC001_073117_POL_04_WB	0.3195	20	-	-	-		100X -
1708241-05	ES-02E_17HC001_073117_POL_05_WB	0.266	20	-	-	-		100X -
1708241-06	ESFP_17HC001_072817_POL_01_WB	0.2898	20	-	-	-		100X -
1708241-07	ESFP_17HC001_072817_POL_02_WB	0.2908	20	-	-	-		100X -
1708241-08	ESFP_17HC001_072817_POL_03_WB	0.2656	20	-	-	-		100X -
1708241-09	ESFP_17HC001_072817_POL_04_WB	0.2659	20	-	-	-		100X -
1708241-10	ESFP_17HC001_072817_POL_05_WB	0.3108	20	-	-	-		100X -
1708241-11	BFK_17HC001_073117_POL_01_WB	0.2595	20	-	-	-		100X -
1708241-12	BFK_17HC001_073117_POL_02_WB	0.264	20	-	-	-		100X -
1708241-13	BFK_17HC001_073117_POL_03_WB	0.2505	20	-	-	-		100X -
1708241-14	BFK_17HC001_073117_POL_04_WB	0.2883	20	-	-	-		100X -
1708241-15	BFK_17HC001_073117_POL_05_WB	0.2733	20	-	-	-		100X -

Due Date: 8/31/2017

PREPARATION BENCH SHEET

F708459

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/17/2017

Due Date: 8/31/2017

Technician: cwF/cic

Batch#: F708459

Date: 8/17/17/8/18/17

EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.

EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.

EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).

EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
Balance#: 19 Calibrated? Yes No Therm.#: 14545 Calibrated? Yes No

*Time in: 1421 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C

Time out: 1645 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C

*Time in can't begin before target temperature is reached
Final vol.: 20 mL (LIMS ID: 1704958) Spike vol.: 100 µL (LIMS ID: 1701763)
MS/MSD

Spike Witness: Cmc 8/16/17 (initial and date)

HCl LIMS ID: NA

Pipette SN#: 0407852 Calibration Date: 8/18/17

HNO₃ LIMS ID: NA

Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1705022

Dispenser #: 02117494 Calibrated? Yes No

Other Acid LIMS ID: N/A

Dispenser #: 15406623 JTS

Glass Vial # 00068124 Boiling Chip lot # 1704424 *Hotblock Position: L6

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F708459 - BLK1	0.2919	23	1708241-09	0.2659	BS2 = DORM-4
2	F708459 - BLK2	0.2549	24	1708241-10	0.3108	LIMS = 1703305
3	F708459 - BLK3	0.2525	25	1708241-11	0.2595	
4	F708459 - BLK4	0.2753	26	1708241-12	0.2640	Comments BLK4 + 5 are homogenization Pre + Post blanks respectively
5	F708459 - BLK5	0.2520	27	1708241-13	0.2505	
6	F708459 - BSD1	0.2965	28	1708241-14	0.2883	Dupl/MSV/MSD1 SRC: 170818-03 _{BS2}
7	F708459 - BSD1	0.2825	29	1708241-15	0.2733	
8	F708459 - BSD2	0.1323	30			MSZ/MSD2 SRC: 1708241-01
9	1708180313EZ	0.1884	31			
10	F708459-Dup1	0.2512	32			spike + Acid added by: cic 8/18/17
11	F708459-MS1	0.2580	33			
12	F708459-MSD1	0.2624	34			BSV/BSD1 spikes 20µL of 100 ^{ng} /mL 1704421
13	1708241-01	0.3855	35			
14	F708459-MS2	0.2717	36			
15	F708459-MSD2	0.2544	37			
16	1708241-02	0.2726	38			
17	1708241-03	0.2672	39			
18	1708241-04	0.3195	40			
19	1708241-05	0.2660	41			
20	1708241-06	0.2898	42			
21	1708241-07	0.2908	43			
22	1708241-08	0.2656	44			

ANALYSIS SEQUENCE

QUALITY ASSURANCE

PEER-REVIEWED

7H24012

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *R 8/23/17* Analyzed: 8/23/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H24012-IBL1	QC	1			
7H24012-IBL2	QC	2			
7H24012-IBL3	QC	3			
7H24012-CAL1	QC	4	1704505		
7H24012-CAL2	QC	5	1704506		
7H24012-CAL3	QC	6	1704507		
7H24012-CAL4	QC	7	1704508		
7H24012-CAL5	QC	8	1704509		
7H24012-ICV1	QC	9	1703679		
F708501-BLK1	QC	10			
F708501-BLK2	QC	11			
F708501-BS1	QC	12			
F708501-BSD1	QC	13			
1708086-04	Hg-CVAFS-S-7474	14			
1708086-05	Hg-CVAFS-S-7474	15			
1708086-06	Hg-CVAFS-S-7474	16			
1708151-01	Hg-CVAFS-S-7474	17			
1708151-02	Hg-CVAFS-S-7474	18			
1708151-03	Hg-CVAFS-S-7474	19			
7H24012-CCV1	QC	20	1703679		
7H24012-CCB1	QC	21			
1708151-04	Hg-CVAFS-S-7474	22			
1708151-05	Hg-CVAFS-S-7474	23			
1708151-06	Hg-CVAFS-S-7474	24			
1708151-07	Hg-CVAFS-S-7474	25			
1708151-08	Hg-CVAFS-S-7474	26			
1708151-09	Hg-CVAFS-S-7474	27			
1708151-10	Hg-CVAFS-S-7474	28			
1708151-11	Hg-CVAFS-S-7474	29			
1708151-12	Hg-CVAFS-S-7474	30			
1708151-13	Hg-CVAFS-S-7474	31			
7H24012-CCV2	QC	32	1703679		
7H24012-CCB2	QC	33			
1708151-14	Hg-CVAFS-S-7474	34			
1708151-15	Hg-CVAFS-S-7474	35			

ANALYSIS SEQUENCE

7H24012

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/23/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708151-16	Hg-CVAFS-S-7474	36			
1708151-17	Hg-CVAFS-S-7474	37			
F708501-MS1	QC	38			
F708501-MSD1	QC	39			
F708501-MS2	QC	40			
F708501-MSD2	QC	41			
F708500-BLK1	QC	42			
F708500-BLK2	QC	43			
7H24012-CCV3	QC	44	1703679		
7H24012-CCB3	QC	45			
F708500-BS1	QC	46			
F708500-BSD1	QC	47			
1707810-13	Hg-CVAFS-S-7474	48			
1707810-14	Hg-CVAFS-S-7474	49			
1707810-15	Hg-CVAFS-S-7474	50			
1707810-16	Hg-CVAFS-S-7474	51			
1707810-17	Hg-CVAFS-S-7474	52			
1707810-18	Hg-CVAFS-S-7474	53			
1707810-19	Hg-CVAFS-S-7474	54			
1707810-20	Hg-CVAFS-S-7474	55			
7H24012-CCV4	QC	56	1703679		
7H24012-CCB4	QC	57			
1707810-21	Hg-CVAFS-S-7474	58			
1707810-22	Hg-CVAFS-S-7474	59			
1707810-23	Hg-CVAFS-S-7474	60			
1707810-24	Hg-CVAFS-S-7474	61			
1707810-25	Hg-CVAFS-S-7474	62			
1707810-26	Hg-CVAFS-S-7474	63			
1707810-27	Hg-CVAFS-S-7474	64			
1707810-28	Hg-CVAFS-S-7474	65			
1707810-29	Hg-CVAFS-S-7474	66			
1708086-01	Hg-CVAFS-S-7474	67			
7H24012-CCV5	QC	68	1703679		
7H24012-CCB5	QC	69			
1708086-02	Hg-CVAFS-S-7474	70			

Due Date: 8/24/2017

73 of 319

Page 2 of 3

ANALYSIS SEQUENCE

7H24012

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/23/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708086-03	Hg-CVAFS-S-7474	71			
1707810-23RE1	Hg-CVAFS-S-7474	72			Added 8/24/2017 by DM2
1707810-24RE1	Hg-CVAFS-S-7474	73			Added 8/24/2017 by DM2
1707810-27RE1	Hg-CVAFS-S-7474	74			Added 8/24/2017 by DM2
1707810-28RE1	Hg-CVAFS-S-7474	75			Added 8/24/2017 by DM2
F708500-MS1	QC	76			
F708500-MSD1	QC	77			
F708500-MS2	QC	78			
F708500-MSD2	QC	79			
7H24012-CCV6	QC	80	1703679		
7H24012-CCB6	QC	81			

 Dan Motem 8/23/17
 Samples Loaded By Date

 Dan Motem 8/24/17
 Data Processed By Date

PREPARATION BENCH SHEET

F708501

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/22/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708501-BLK1	Blank	0.5	200					
F708501-BLK2	Blank	0.5	200					
F708501-BS1	Blank Spike	0.5	200	1701763	40			
F708501-BSD1	Blank Spike	0.5	200	1701763	40			
F708501-MS1	Matrix Spike [1708151-01]	0.5933	200	1703591	50			
F708501-MS2	Matrix Spike [1708151-11]	0.5561	200	1703591	50			
F708501-MSD1	Matrix Spike Dup [1708151-01]	0.5573	200	1703591	50			
F708501-MSD2	Matrix Spike Dup [1708151-11]	0.522	200	1703591	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703591	THg 10,000ng/mL Primary Spiking Standard	14-Dec-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1704516	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1704640	Omnitrace Hydrochloric Acid	27-Jul-20 00:00
			1704956	3% SnCl2 THg reductant	29-Jan-18 00:00
			1704959	7474 Potassium Bromate/Bromide Reagent	22-Aug-17 00:00

PREPARATION BENCH SHEET

F708501

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/22/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708086-04	AOI_21_080117_SS_N06_DUP	0.5733	200	-	-	-		
1708086-05	AOI_20_080117_SS_N08	0.5496	200	-	-	-		
1708086-06	AOI_1_OR_080117_SS_N08	0.5868	200	-	-	-		
1708151-01	W-100-A_080117_SED_00-01	0.5404	200	-	-	-		
1708151-02	W-100-A_080117_SED_01-03	0.5429	200	-	-	-		
1708151-03	W-101-INTA_080117_SED_00-01	0.5609	200	-	-	-		
1708151-04	W-101-INTA_080117_SED_01-03_R1	0.5794	200	-	-	-		
1708151-05	W-101-INTA_080117_SED_01-03_R2	0.5567	200	-	-	-		
1708151-06	W-101-INTA_080117_SED_01-03_R3	0.5957	200	-	-	-		
1708151-07	W-104-B_080117_SED_00-01	0.5563	200	-	-	-		
1708151-08	W-104-B_080117_SED_01-03	0.5933	200	-	-	-	Original jar broken, transferred sample	
1708151-09	W-104-INTB_080117_SED_00-01	0.5691	200	-	-	-	Original jar broken, transferred sample	
1708151-10	W-104-INTB_080117_SED_01-03	0.5986	200	-	-	-	Original jar broken, transferred sample	
1708151-11	W-106-A_080117_SED_00-01	0.5809	200	-	-	-		
1708151-12	W-106-A_080117_SED_01-03	0.577	200	-	-	-		
1708151-13	W-107-A_080117_SED_00-01	0.547	200	-	-	-		
1708151-14	W-107-A_080117_SED_01-03	0.5904	200	-	-	-		
1708151-15	W-109-A_080117_SED_00-01	0.5526	200	-	-	-		
1708151-16	W-109-A_080117_SED_01-03	0.5604	200	-	-	-		

Due Date: 8/30/2017

PREPARATION BENCH SHEET

F708501

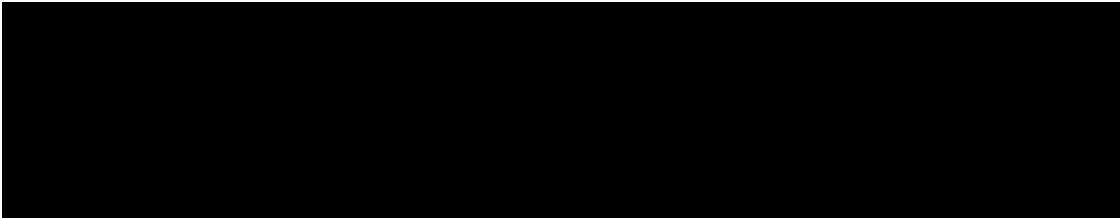
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/22/2017

1708151-17	W-110-A_080117_SED_00-01_R1	0.5175	200	-	-	-		
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PREPARATION BENCH SHEET

F708501

Eurofins Frontier Global Sciences, Inc.

200-3
8/23/17 DM

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/22/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708501-BLK1	Blank	0.5	200					10X
F708501-BLK2	Blank	0.5	200					10X
F708501-BS1	Blank Spike	0.5	200	1701763	40			100X
F708501-BSD1	Blank Spike	0.5	200	1701763	40			100X
F708501-MS1	Matrix Spike [1708151-01]	0.5933	200	1703591	50			400X
F708501-MS2	Matrix Spike [1708151-11]	0.5561	200	1703591	50			400X
F708501-MSD1	Matrix Spike Dup [1708151-01]	0.5573	200	1703591	50			400X
F708501-MSD2	Matrix Spike Dup [1708151-11]	0.522	200	1703591	50			400X

Standard ID(s):
1701763 THg 1,000ng/mL Secondary Spiking Standard
1703591 THg 10,000ng/mL Primary Spiking Standard

Expiration:
22-Sep-17 00:00
14-Dec-17 00:00

Reagent ID(s):
1704424 Boiling Chips for AFS prep
1704484 Fisher Nitric Acid, Tracemetal Grade
1704640 Omnitrace Hydrochloric Acid
1704959 7474 Potassium Bromate/Bromide Reagent

Expiration:
21-Jan-18 00:00
15-Mar-19 00:00
27-Jul-20 00:00
22-Aug-17 00:00

1704517
1704516
1703182
1704956

Due Date: 8/30/2017

PREPARATION BENCH SHEET

F708501

Eurofins Frontier Global Sciences, Inc.

200-3

8/23/17 DM

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/22/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708086-04	AOI_21_080117_SS_N06_DUP	0.5733	200	-	-	-		SOX
1708086-05	AOI_20_080117_SS_N08	0.5496	200	-	-	-		SOX
1708086-06	AOI_1_OR_080117_SS_N08	0.5868	200	-	-	-		SOX
1708151-01	W-100-A_080117_SED_00-01	0.5404	200	-	-	-		SOX
1708151-02	W-100-A_080117_SED_01-03	0.5429	200	-	-	-		SOX
1708151-03	W-101-INTA_080117_SED_00-01	0.5609	200	-	-	-		SOX
1708151-04	W-101-INTA_080117_SED_01-03_R1	0.5794	200	-	-	-		SOX
1708151-05	W-101-INTA_080117_SED_01-03_R2	0.5567	200	-	-	-		SOX
1708151-06	W-101-INTA_080117_SED_01-03_R3	0.5957	200	-	-	-		SOX
1708151-07	W-104-B_080117_SED_00-01	0.5563	200	-	-	-		SOX
1708151-08	W-104-B_080117_SED_01-03	0.5933	200	-	-	-	Original jar broken, transferred sample	SOX
1708151-09	W-104-INTB_080117_SED_00-01	0.5691	200	-	-	-	Original jar broken, transferred sample	SOX
1708151-10	W-104-INTB_080117_SED_01-03	0.5986	200	-	-	-	Original jar broken, transferred sample	SOX
1708151-11	W-106-A_080117_SED_00-01	0.5809	200	-	-	-		SOX
1708151-12	W-106-A_080117_SED_01-03	0.577	200	-	-	-		SOX
1708151-13	W-107-A_080117_SED_00-01	0.547	200	-	-	-		SOX
1708151-14	W-107-A_080117_SED_01-03	0.5904	200	-	-	-		SOX
1708151-15	W-109-A_080117_SED_00-01	0.5526	200	-	-	-		SOX
1708151-16	W-109-A_080117_SED_01-03	0.5604	200	-	-	-		SOX

Due Date: 8/30/2017

PREPARATION BENCH SHEET

260.3

8/23/17 DM

F708501

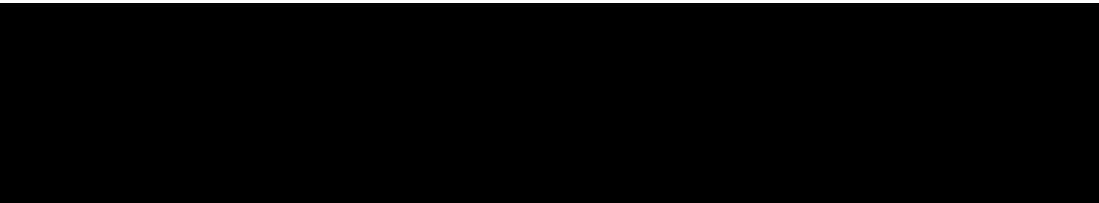
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/22/2017

1708151-17	W-110-A_080117_SED_00-01_R1	0.5175	200	-	-	-		50X
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Technician: Duyen Batch#: F708501 Date: 8-22-17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA 7474 Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: N/A Calibrated? Yes No
 *Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 *Time in can't begin before target temperature is reached

Final vol.: 25 mL (LIMS ID: R0420) Spike vol.: 40 µL (LIMS ID: 1701763)
 Spike Witness: WF 8/22/17 (initial and date)

HCl LIMS ID: 1704640 Pipette SN#: 0007852 Calibration Date: 8/18/17
 HNO₃ LIMS ID: 1704484 Pipette SN#: 0007693 Calibration Date: 8/22/17
 70/30 LIMS ID: N/A Dispenser #: 09W45351 Calibrated? Yes No
 Other Acid LIMS ID: 1705105 Dispenser #: 08Y2293 Yes
 Glass Vial # 726493-7025 Boiling Chip lot # 1704424 *Hotblock Position: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial # <u>8/22/17</u>	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F708501 Blk1	0.4986	23	1708151-12	0.5770	
2	F708501 Blk2	0.5918	24	1708151-13	0.5470	
3	F708501 Blk1	0.5079	25	1708151-14	0.5904	
4	F708501 Blk1	0.5030	26	1708151-15	0.5526	Comments
5	1708086-04	0.5737	27	1708151-16	0.5604	F708501 source
6	1708086-05	0.5496	28	1708151-17	0.5175	MS1 MS2 1708151-01
7	1708086-06	0.5868	29			
8	1708151-01	0.5404	30			
9	F708501 MS1	0.5933	31			F708501 MS2 MS2
10	F708501 MS1	0.5573	32			1708151-11
11	1708151-02	0.5429	33			
12	1708151-03	0.5609	34			
13	1708151-04	0.5794	35			
14	1708151-05	0.5567	36			
15	1708151-06	0.5957	37			
16	1708151-07	0.5563	38			
17	1708151-08	0.5933	39			
18	1708151-09	0.5691	40			
19	1708151-10	0.5986	41			
20	1708151-11	0.5809	42			
21	F708501-MS2	0.5561	43			
22	F708501-MS1	0.5220	44			

8/22/17
N/A

F708501 source
MS1 MS2
1708151-01

F708501 MS2 MS2
1708151-11

All spike
MS1 MS2
= 10,000 µg/L
= 50 µg
1703591
8/22/17 no

PREPARATION BENCH SHEET

F708500

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/22/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708500-BLK1	Blank	0.5	200					
F708500-BLK2	Blank	0.5	200					
F708500-BS1	Blank Spike	0.5	200	1701763	40			
F708500-BSD1	Blank Spike	0.5	200	1701763	40			
F708500-MS1	Matrix Spike [1707810-21]	0.5438	200	1703591	50			
F708500-MS2	Matrix Spike [1708086-01]	0.5336	200	1703591	50			
F708500-MSD1	Matrix Spike Dup [1707810-21]	0.589	200	1703591	50			
F708500-MSD2	Matrix Spike Dup [1708086-01]	0.5684	200	1703591	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703591	THg 10,000ng/mL Primary Spiking Standard	14-Dec-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1704516	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1704640	Omnitrace Hydrochloric Acid	27-Jul-20 00:00
			1704956	3% SnCl ₂ THg reductant	29-Jan-18 00:00
			1704959	7474 Potassium Bromate/Bromide Reagent	22-Aug-17 00:00

PREPARATION BENCH SHEET

F708500

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/22/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707810-13	W-65-Intertidal_072617_SED_03-05	0.5629	200	-	-	-		
1707810-14	BO-05_072617_SED_03-05	0.5746	200	-	-	-		
1707810-15	BO-05_072617_SED_05-10	0.5486	200	-	-	-		
1707810-16	W-21-High_072617_SED_03-05	0.5429	200	-	-	-		
1707810-17	W-21-High_072617_SED_05-10	0.5592	200	-	-	-		
1707810-18	W-21-Intertidal_072617_SED_03-05	0.5231	200	-	-	-		
1707810-19	W-21-Intertidal_072617_SED_05-10	0.5314	200	-	-	-		
1707810-20	W-21-UM-Central-E_072617_SED_03-05	0.5479	200	-	-	-		
1707810-21	W-21-UM-Central-E_072617_SED_05-10	0.5421	200	-	-	-		
1707810-22	W-21-Mid_072617_SED_03-05	0.589	200	-	-	-		
1707810-23	W-21-Mid_072617_SED_05-10	0.5336	200	-	-	-		
1707810-23RE1	W-21-Mid_072617_SED_05-10	0.5336	200	-	-	-	Added 8/24/2017 by DM2	Added 8/24/2017 by DM2
1707810-24	W-17-Intertidal_072617_SED_03-05	0.5664	200	-	-	-		
1707810-24RE1	W-17-Intertidal_072617_SED_03-05	0.5664	200	-	-	-	Added 8/24/2017 by DM2	Added 8/24/2017 by DM2
1707810-25	W-17-Intertidal_072617_SED_05-10	0.5472	200	-	-	-		
1707810-26	W-21-Low_072617_SED_03-05	0.5876	200	-	-	-		
1707810-27	W-21-Low_072617_SED_05-10	0.5623	200	-	-	-		
1707810-27RE1	W-21-Low_072617_SED_05-10	0.5623	200	-	-	-	Added 8/24/2017 by DM2	Added 8/24/2017 by DM2
1707810-28	ADD-02_072517_SED_03-05	0.553	200	-	-	-		

Due Date: 8/24/2017

PREPARATION BENCH SHEET

F708500

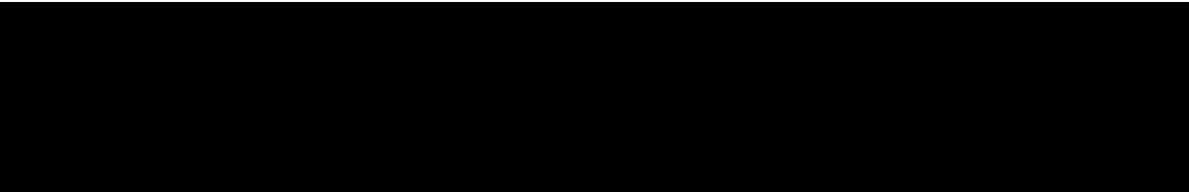
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/22/2017

1707810-28RE1	ADD-02_072517_SED_03-05	0.553	200	-	-	-	Added 8/24/2017 by DM2	Added 8/24/2017 by DM2
1707810-29	ADD-02_072517_SED_05-10	0.5731	200	-	-	-		
1708086-01	AOI_21_080117_SS_N06_R1	0.5718	200	QC	-	-	MS/MSD	
1708086-02	AOI_21_080117_SS_N06_R2	0.5385	200	-	-	-		
1708086-03	AOI_21_080117_SS_N06_R3	0.5473	200	-	-	-		



PREPARATION BENCH SHEET

2600-3
8/23/17 DM

F708500

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/22/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708500-BLK1	Blank	0.5	200					10X
F708500-BLK2	Blank	0.5	200					10X
F708500-BS1	Blank Spike	0.5	200	1701763	40			100X
F708500-BSD1	Blank Spike	0.5	200	1701763	40			100X
F708500-MS1	Matrix Spike [1707810-21]	0.5438	200	1703591	50			400X
F708500-MS2	Matrix Spike [1708086-01]	0.5336	200	1703591	50			400X
F708500-MSD1	Matrix Spike Dup [1707810-21]	0.589	200	1703591	50			400X
F708500-MSD2	Matrix Spike Dup [1708086-01]	0.5684	200	1703591	50			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1703591	THg 10,000ng/mL Primary Spiking Standard	14-Dec-17 00:00	1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1704640	Omnitrace Hydrochloric Acid	27-Jul-20 00:00
			1704959	7474 Potassium Bromate/Bromide Reagent	22-Aug-17 00:00

1703182

1704956

1704516

1704517

PREPARATION BENCH SHEET

F708500

Eurofins Frontier Global Sciences, Inc.

200-3
8/23/17 DM

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/22/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707810-13	W-65-Intertidal_072617_SED_03-05	0.5629	200	-	-	-		50X
1707810-14	BO-05_072617_SED_03-05	0.5746	200	-	-	-		50X
1707810-15	BO-05_072617_SED_05-10	0.5486	200	-	-	-		50X
1707810-16	W-21-High_072617_SED_03-05	0.5429	200	-	-	-		50X
1707810-17	W-21-High_072617_SED_05-10	0.5592	200	-	-	-		50X
1707810-18	W-21-Intertidal_072617_SED_03-05	0.5231	200	-	-	-		50X
1707810-19	W-21-Intertidal_072617_SED_05-10	0.5314	200	-	-	-		50X
1707810-20	W-21-UM-Central-E_072617_SED_03-05	0.5479	200	-	-	-		50X
1707810-21	W-21-UM-Central-E_072617_SED_05-10	0.5421	200	-	-	-		50X
1707810-22	W-21-Mid_072617_SED_03-05	0.589	200	-	-	-		50X
1707810-23	W-21-Mid_072617_SED_05-10	0.5336	200	-	-	-		50X → 100X
1707810-24	W-17-Intertidal_072617_SED_03-05	0.5664	200	-	-	-		50X → 50X
1707810-25	W-17-Intertidal_072617_SED_05-10	0.5472	200	-	-	-		50X
1707810-26	W-21-Low_072617_SED_03-05	0.5876	200	-	-	-		50X
1707810-27	W-21-Low_072617_SED_05-10	0.5623	200	-	-	-		50X → 100X
1707810-28	ADD-02_072517_SED_03-05	0.553	200	-	-	-		50X → 50X
1707810-29	ADD-02_072517_SED_05-10	0.5731	200	-	-	-		50X
1708086-01	AOI_21_080117_SS_N06_R1	0.5718	200	QC	-	-	MS/MSD	50X
1708086-02	AOI_21_080117_SS_N06_R2	0.5385	200	-	-	-		50X

PREPARATION BENCH SHEET

200-3
8/23/17 DM

F708500

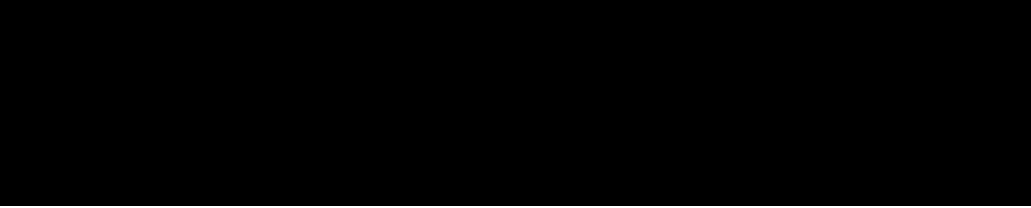
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/22/2017

1708086-03	AOI_21_080117_SS_N06_R3	0.5473	200	-	-	-	50%
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Technician: Duyen Batch#: F708500 Date: 8/22/17

- EFAPS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAPS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAPS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAPS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA 7474 Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: N/A Calibrated? Yes No

*Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C

*Time in can't begin before target temperature is reached
 Final vol.: 25 mL (LIMS ID: ROH20) Spike vol.: 40 µL (LIMS ID: 1701763)
 Spike Witness: Cue 8/22/17 (initial and date)

HCl LIMS ID: 1704640 Pipette SN#: 0007852 Calibration Date: 8-18-17
 HNO₃ LIMS ID: 1704484 Pipette SN#: 0007693 Calibration Date: 8/21/17
 70/30 LIMS ID: N/A Dispenser #: 09W45351 Calibrated? Yes No
 Other Acid LIMS ID: 1705105 Dispenser #: 0842293 Yes
 Glass Vial # J26 4713-3025 Boiling Chip lot # 1704424 *Hotblock Position: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> µg	Vial # <u>8/22/17</u>	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> µg	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F708500 Bk1	0.5513	23	1707810-29	0.5731	
2	F708500 Bk2	0.5061	24	1708086-01B	0.5718	
3	F708500 B51	0.5292	25	F708500 MS2	0.5376	
4	F708500 B5M1	0.5468	26	F708500 MS2	0.5684	Comments
5	1707810-13	0.5629	27	1708086-02A	0.5385	F708500
6	1707810-14	0.5746	28	1708086-03A	0.5473	source 21
7	1707810-15	0.5486	29			1707810-22
8	1707810-16	0.5429	30			MS1 MSN1
9	1707810-17	0.5592	31			
10	1707810-18	0.5231	32			F708500
11	1707810-19	0.5314	33			MS2 MS2
12	1707810-20	0.5479	34			1708086-01
13	1707810-21	0.5421	35			ALL spike
14	F708500-MS2	0.5575	36			MS1 MSN1
15	F708500-MS2	0.5438	37			=10,000 µg/L
16	1707810-22	0.5890	38			=50 µL
17	1707810-23	0.5376	39			1707591
18	1707810-24	0.5664	40			vial # 14
19	1707810-25	0.5472	41			F708500-MS1
20	1707810-26	0.5876	42			=0.5575 µg
21	1707810-27	0.5623	43			8/22/17
22	1707810-28	0.5530	44			

Failing Data Report - 7H24012

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1707810-23	Hg-CVAFS-S-7474	2640	59.7				ng/g						FAIL-OVER	PASS	E -
1707810-27	Hg-CVAFS-S-7474	2670	46.7				ng/g						FAIL-OVER	PASS	E -

Don M... 3/24/17
 Analyst Reviewed By Date

PLM 3/24/17
 Peer Reviewed By Date

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	DON MORAN	Sequence(s) #:	7H24011, 7H24012
Reviewer:	0 <i>R 8/24/17</i>	Dataset ID(s):	THG26003-170823-1
Date:	8/24/2017	WO (s) #:	1708086, 1708151, 1707810, 1708118, 1708241
Batch #(s):	F708501, F708500, F708459		0

Analyst Initials DM Reviewer Initials R 8/24/17

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: 1707810-23, 27 HIGH SAMPLES. ABOVE CAL5
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
 (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
 (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: DON MORAN	Sequence(s) #: 7H24011, 7H24012
Reviewer: 0 <i>R 8/24/17</i>	Dataset ID(s): THG26003-170823-1
Date: 8/24/2017	WO (s) #: 1708086, 1708151, 1707810, 1708118, 1708241
Batch #(s): F708501, F708500, F708459	0

Analyst Initials DM **Reviewer Initials** R 8/24/17

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| <u>Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs</u> | | | |
| 36. Date of analyst IDOC/CDOC: _____ 12/1/16, 11/23/16 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2016 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 5/9/17, 4/26/17 _____ LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 5/9/17, 4/26/17 _____ LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.



Frontier Global Sciences

MHg27001-171020-1

Analysis Datasheet for Methyl Mercury in Waters

Date of Analysis: October 20, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7J22008

Analyst: DM2

Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	24.27 units	485.40	24.27 units	485.40	89.0 %Rec
SEQ-CAL2	1	0.20 ng/L	104.65 units	523.26	104.65 units	523.26	95.9 %Rec
SEQ-CAL3	1	1.00 ng/L	591.99 units	591.99	591.99 units	591.99	108.5 %Rec
SEQ-CAL4	1	2.00 ng/L	1087.55 units	543.78	1087.55 units	543.78	99.7 %Rec
SEQ-CAL5	1	4.00 ng/L	2333.65 units	583.41	2333.65 units	583.41	106.9 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF	Eff Factor
545.57	+/- 43.90	8.0% RSD	545.57	0.8690

MDN Only

SEQ-CAL1
 SEQ-CAL2
 SEQ-CAL3
 SEQ-CAL4
 SEQ-CAL5
 SEQ-CAL6 NA
 SEQ-CAL7 NA
 SEQ-CAL8 NA
 SEQ-CAL9 NA
 SEQ-ICV/CCV
 Acetate Buffer
 Ethylating Agent

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	0.00 units		0.00 ng/L	#VALUE!

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.002 ng/L	±0.002
BLK	2	0	0.000 ng/L	
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER-REVIEWED

INITIALS: DM 10/23/17

Sample				Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB					
Instrument	Analyst	Type	LabNumber							Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hq2700-1	DM2	CAL	SEQ-IBL1	1	10/20/17 10:27	26767-1.RAW	10:27	0.00			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL1	1	10/20/17 10:37	26768-1.RAW	#####	24.27			24.3	0.044	0.044	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL2	1	10/20/17 10:48	26769-1.RAW	#####	104.65			104.7	0.192	0.192	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL3	1	10/20/17 10:58	26770-1.RAW	#####	591.99			592.0	1.085	1.085	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL4	1	10/20/17 11:09	26771-1.RAW	#####	1087.55			1087.6	1.993	1.993	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL5	1	10/20/17 11:19	26772-1.RAW	#####	2333.65			2333.6	4.277	4.277	ng/L	
Hq2700-1	DM2	CAL	SEQ-ICV1	1	10/20/17 11:30	26773-1.RAW	#####	280.11			280.1	0.513	0.513	ng/L	
Hq2700-1	DM2	CAL	SEQ-ICB1	1	10/20/17 11:40	26774-1.RAW	#####	3.13			3.1	0.006	0.006	ng/L	
Hq2700-1	DM2	BLK	F710411-BLK1	1.25	10/20/17 11:51	26775-1.RAW	#####	1.53	1		1.5	0.003	0.004	ng/L	
Hq2700-1	DM2	BLK	F710411-BLK2	1.25	10/20/17 12:01	26776-1.RAW	#####	0.78	1		0.8	0.002	0.002	ng/L	
Hq2700-1	DM2	BLK	F710411-BLK3	1.25	10/20/17 12:12	26777-1.RAW	#####	0.00	1		0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	F710411-BS1	1.25	10/20/17 12:22	26778-1.RAW	#####	355.87	1		355.9	0.749	0.936	ng/L	
Hq2700-1	DM2	SAM	F710411-BSD1	1.25	10/20/17 12:33	26779-1.RAW	#####	391.93	1		391.9	0.825	1.031	ng/L	
Hq2700-1	DM2	SAM	F710411-DUP1	1.25	10/20/17 12:43	26780-1.RAW	#####	27.78	1		27.8	0.057	0.071	ng/L	
Hq2700-1	DM2	SAM	F710411-MS1	1.25	10/20/17 12:54	26781-1.RAW	#####	408.25	1		408.3	0.859	1.074	ng/L	
Hq2700-1	DM2	SAM	F710411-MSD1	1.25	10/20/17 13:04	26782-1.RAW	#####	358.46	1		358.5	0.754	0.943	ng/L	
Hq2700-1	DM2	SAM	F710411-MS2	1.25	10/20/17 13:15	26783-1.RAW	#####	336.74	1		336.7	0.709	0.886	ng/L	
Hq2700-1	DM2	SAM	F710411-MSD2	1.25	10/20/17 13:25	26784-1.RAW	#####	326.12	1		326.1	0.686	0.858	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV1	1	10/20/17 13:36	26785-1.RAW	#####	254.91			254.9	0.467	0.467	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB1	1	10/20/17 13:46	26786-1.RAW	#####	1.38			1.4	0.003	0.003	ng/L	
Hq2700-1	DM2	SAM	1710143-01	1.25	10/20/17 13:57	26787-1.RAW	#####	22.12	1		22.1	0.045	0.056	ng/L	
Hq2700-1	DM2	SAM	1710143-02	1.25	10/20/17 14:08	26788-1.RAW	#####	25.70	1		25.7	0.053	0.066	ng/L	
Hq2700-1	DM2	SAM	1710143-03	1.25	10/20/17 14:18	26789-1.RAW	#####	19.27	1		19.3	0.039	0.049	ng/L	
Hq2700-1	DM2	SAM	1710143-04	1.25	10/20/17 14:29	26790-1.RAW	#####	20.02	1		20.0	0.041	0.051	ng/L	
Hq2700-1	DM2	SAM	1710143-05	1.25	10/20/17 14:39	26791-1.RAW	#####	19.84	1		19.8	0.040	0.050	ng/L	
Hq2700-1	DM2	SAM	1710143-06	1.25	10/20/17 14:50	26792-1.RAW	#####	13.54	1		13.5	0.027	0.034	ng/L	
Hq2700-1	DM2	SAM	1710351-01	1.25	10/20/17 15:00	26793-1.RAW	#####	29.40	1		29.4	0.060	0.075	ng/L	
Hq2700-1	DM2	SAM	1710351-03	1.25	10/20/17 15:11	26794-1.RAW	#####	14.23	1		14.2	0.028	0.035	ng/L	
Hq2700-1	DM2	SAM	1710351-04	1.25	10/20/17 15:21	26795-1.RAW	#####	41.63	1		41.6	0.086	0.108	ng/L	
Hq2700-1	DM2	SAM	1710351-05	1.25	10/20/17 15:32	26796-1.RAW	#####	40.14	1		40.1	0.083	0.104	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV2	1	10/20/17 15:42	26797-1.RAW	#####	255.45			255.4	0.468	0.468	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB2	1	10/20/17 15:53	26798-1.RAW	#####	0.00			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	1710351-07	1.25	10/20/17 16:03	26799-1.RAW	#####	51.26	1		51.3	0.106	0.133	ng/L	
Hq2700-1	DM2	SAM	1710351-08	1.25	10/20/17 16:14	26800-1.RAW	#####	1.81	1		1.8	0.002	0.003	ng/L	
Hq2700-1	DM2	SAM	1710360-01	1.25	10/20/17 16:24	26801-1.RAW	#####	0.00	1		0.0	-0.002	-0.002	ng/L	
Hq2700-1	DM2	SAM	1710360-02	1.25	10/20/17 16:35	26802-1.RAW	#####	6.09	1		6.1	0.011	0.014	ng/L	
Hq2700-1	DM2	SAM	1710360-03	1.25	10/20/17 16:45	26803-1.RAW	#####	0.00	1		0.0	-0.002	-0.002	ng/L	
Hq2700-1	DM2	SAM	1710360-04	1.25	10/20/17 16:56	26804-1.RAW	#####	0.00	1		0.0	-0.002	-0.002	ng/L	
Hq2700-1	DM2	SAM	1710366-01RE1	1.25	10/20/17 17:06	26805-1.RAW	#####	20.17	1		20.2	0.041	0.051	ng/L	
Hq2700-1	DM2	SAM	1710478-02	1.25	10/20/17 17:17	26806-1.RAW	#####	12.05	1		12.0	0.024	0.030	ng/L	
Hq2700-1	DM2	SAM	1710581-01	1.25	10/20/17 17:27	26807-1.RAW	#####	486.91	1		486.9	1.025	1.282	ng/L	
Hq2700-1	DM2	SAM	1710581-02	1.25	10/20/17 17:38	26808-1.RAW	#####	4959.62	1		4959.6	10.460	13.074	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV3	1	10/20/17 17:48	26809-1.RAW	#####	281.90			281.9	0.517	0.517	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB3	1	10/20/17 17:59	26810-1.RAW	#####	1.33			1.3	0.002	0.002	ng/L	

ANALYSIS SEQUENCE

7J22008

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/20/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J22008-IBL1 ✓	QC	1			
7J22008-CAL1 ✓	QC	2	1706041 ✓		
7J22008-CAL2 ✓	QC	3	1706042 ✓		
7J22008-CAL3 ✓	QC	4	1706043 ✓		
7J22008-CAL4 ✓	QC	5	1706044 ✓		
7J22008-CAL5 ✓	QC	6	1706045 ✓		
7J22008-ICV1 ✓	QC	7	1705084 ✓		
7J22008-ICB1 ✓	QC	8			
F710411-BLK1 ✓	QC	9			
F710411-BLK2 ✓	QC	10			
F710411-BLK3 ✓	QC	11			
F710411-BS1 ✓	QC	12			
F710411-BSD1 ✓	QC	13			
F710411-DUP1 ✓	QC	14			
F710411-MS1 ✓	QC	15			
F710411-MSD1 ✓	QC	16			
F710411-MS2 ✓	QC	17			
F710411-MSD2 ✓	QC	18			
7J22008-CCV1 ✓	QC	19	1705084 ✓		
7J22008-CCB1 ✓	QC	20			
1710143-01 ✓	MHg-CVAFS-W-Dist	21			Scan all data for level IV report
1710143-02 ✓	MHg-CVAFS-W-Dist	22			Scan all data for level IV report
1710143-03 ✓	MHg-CVAFS-W-Dist	23			Scan all data for level IV report
1710143-04 ✓	MHg-CVAFS-W-Dist	24			Scan all data for level IV report
1710143-05 ✓	MHg-CVAFS-W-Dist	25			Scan all data for level IV report
1710143-06 ✓	MHg-CVAFS-W-Dist	26			Scan all data for level IV report
1710351-01 ✓	MHg-CVAFS-W-Dist	27			Scan all data for level IV report
1710351-03 ✓	MHg-CVAFS-W-Dist	28			Scan all data for level IV report
1710351-04 ✓	MHg-CVAFS-W-Dist	29			Scan all data for level IV report
1710351-05 ✓	MHg-CVAFS-W-Dist	30			Scan all data for level IV report
7J22008-CCV2 ✓	QC	31	1705084 ✓		
7J22008-CCB2 ✓	QC	32			
1710351-07 ✓	MHg-CVAFS-W-Dist	33			Scan all data for level IV report
1710351-08 ✓	MHg-CVAFS-W-Dist	34			Scan all data for level IV report
1710360-01 ✓	MHg-CVAFS-W-Dist	35			

Due Date: 10/25/2017

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Page 1 of 2

ANALYSIS SEQUENCE

7J22008

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/20/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1710360-02 ✓	MHg-CVAFS-W-Dist	36			
1710360-03 ✓	MHg-CVAFS-W-Dist	37			
1710360-04 ✓	MHg-CVAFS-W-Dist	38			
1710366-01RE1 ✓	MHg-CVAFS-W-Dist	39			Redigest due to QC failure. PL 10/16/17
1710478-02 ✓	MHg-CVAFS-W-Dist	40			
1710581-01 ✓	MHg-CVAFS-W-Dist	41			
1710581-02 ✓	MHg-CVAFS-W-Dist	42			
7J22008-CCV3 ✓	QC	43	1705084	✓	
7J22008-CCB3 ✓	QC	44			

Dan M. M. M. M. 10/20/17
 Samples Loaded By Date

Dan M. M. M. M. 10/22/17
 Data Processed By Date

PREPARATION BENCH SHEET

F710411

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710411-BLK1	Blank	45	40					
F710411-BLK2	Blank	45	40					
F710411-BLK3	Blank	45	40					
F710411-BS1	Blank Spike	45	40	1705979	45			
F710411-BSD1	Blank Spike dup	45	40	1705979	45			
F710411-DUP1	Duplicate [1710143-01]	45	40					
F710411-MS1	Matrix Spike [1710143-04]	45	40	1705979	45			
F710411-MS2	Matrix Spike [1710360-01]	45	40	1705979	45			
F710411-MSD1	Matrix Spike Dup [1710143-04]	45	40	1705979	45			
F710411-MSD2	Matrix Spike Dup [1710360-01]	45	40	1705979	45			

Standard ID(s): 1705979
Description: MHg New Primary 1.0 ng/mL CAL

Expiration: 06-Jan-18 00:00

<u>Reagent ID(s):</u> 1704707	<u>Description:</u> Acetate Buffer	<u>Expiration:</u> 29-Jan-18 00:00
1706016	Ethylating Agent (For Methyl Mercury Analysis)	08-Apr-18 00:00
1706143	2.5% Ascorbic Acid	23-Oct-17 00:00
1706208	0.4% HCl Distillation Dilute (Made Daily)	20-Oct-17 00:00
1706209	APDC	26-Oct-17 00:00

PREPARATION BENCH SHEET

F710411

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710143-01	OL-2678-01	45	40	-	-	-	Preservation Blank Created Scan all dat	
1710143-02	OL-2678-02	45	40	-	-	-	Preservation Blank Created Scan all dat	
1710143-03	OL-2678-03	45	40	-	-	-	Preservation Blank Created Scan all dat	
1710143-04	OL-2678-04	45	40	-	-	-	Preservation Blank Created Scan all dat	
1710143-05	OL-2678-05	45	40	-	-	-	Preservation Blank Created Scan all dat	
1710143-06	OL-2678-06	45	40	-	-	-	Preservation Blank Created Scan all dat	
1710351-01	OL-2682-01	45	40	-	-	-	Preservation Blank created Scan all dat	
1710351-03	OL-2682-02	45	40	-	-	-	Preservation Blank created Scan all dat	
1710351-04	OL-2682-03	45	40	-	-	-	Preservation Blank created Scan all dat	
1710351-05	OL-2682-04	45	40	-	-	-	Preservation Blank created Scan all dat	
1710351-07	OL-2682-05	45	40	-	-	-	Preservation Blank created Scan all dat	
1710351-08	OL-2682-06	45	40	-	-	-	Preservation Blank created Scan all dat	
1710360-01	40197.1	45	40	-	-	-		
1710360-02	40197.2	45	40	-	-	-		
1710360-03	40198.1	45	40	-	-	-		
1710360-04	40198.2	45	40	-	-	-		
1710366-01RE1	1710284-001C 7100440-01	45	40	-	-	-	Redigest due to QC failure. PL 10/16/1	
1710478-02	DEW-WAT-01	45	40	-	-	-		
1710581-01	TW PZ-1-20171010	45	40	-	-	-		

PREPARATION BENCH SHEET

F710411

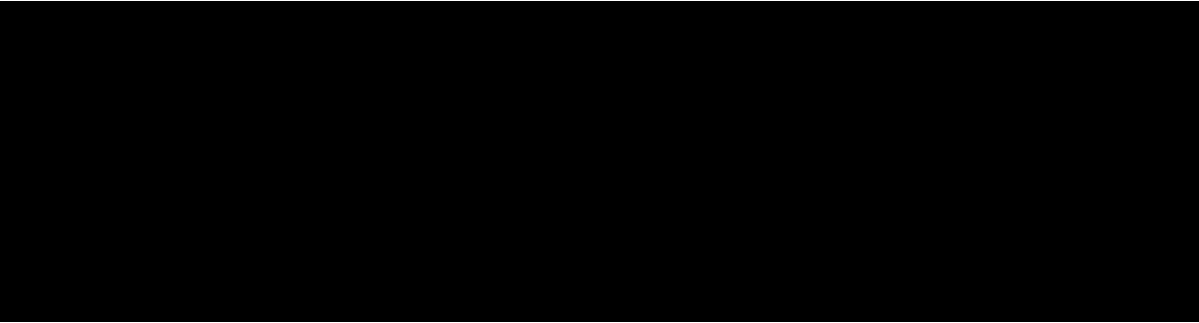
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 10/19/2017

1710581-02	TW PZ-2-20171010	45	40	-	-	-		
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PREPARATION BENCH SHEET

2700-1
10/20/17 DM

F710411

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710411-BLK1	Blank	45	40					1.25X
F710411-BLK2	Blank	45	40					1.25X
F710411-BLK3	Blank	45	40					1.25X
F710411-BS1	Blank Spike	45	40	1705979	45			1.25X
F710411-BSD1	Blank Spike dup	45	40	1705979	45			1.25X
F710411-DUP1	Duplicate [1710143-01]	45	40					1.25X
F710411-MS1	Matrix Spike [1710143-04]	45	40	1705979	45			1.25X
F710411-MS2	Matrix Spike [1710360-01]	45	40	1705979	45			1.25X
F710411-MSD1	Matrix Spike Dup [1710143-04]	45	40	1705979	45			1.25X
F710411-MSD2	Matrix Spike Dup [1710360-01]	45	40	1705979	45			1.25X

Standard ID(s): 1705979
Description: MHg New Primary 1.0 ng/mL CAL

Expiration: 06-Jan-18 00:00

Reagent ID(s): 1706208, 1706209
Description: 0.4% HCl Distillation Dilute (Made Daily), APDC

Expiration: 20-Oct-17 00:00, 26-Oct-17 00:00

1706143
1704707
1706016

Due Date: 10/25/2017

PREPARATION BENCH SHEET

2700-1
10/20/17 DM

F710411

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710143-01	OL-2678-01	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1710143-02	OL-2678-02	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1710143-03	OL-2678-03	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1710143-04	OL-2678-04	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1710143-05	OL-2678-05	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1710143-06	OL-2678-06	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1710351-01	OL-2682-01	45	40	-	-	-	Preservation Blank created Scan all dat	1.25X
1710351-03	OL-2682-02	45	40	-	-	-	Preservation Blank created Scan all dat	1.25X
1710351-04	OL-2682-03	45	40	-	-	-	Preservation Blank created Scan all dat	1.25X
1710351-05	OL-2682-04	45	40	-	-	-	Preservation Blank created Scan all dat	1.25X
1710351-07	OL-2682-05	45	40	-	-	-	Preservation Blank created Scan all dat	1.25X
1710351-08	OL-2682-06	45	40	-	-	-	Preservation Blank created Scan all dat	1.25X
1710360-01	40197.1	45	40	-	-	-		1.25X
1710360-02	40197.2	45	40	-	-	-		1.25X
1710360-03	40198.1	45	40	-	-	-		1.25X
1710360-04	40198.2	45	40	-	-	-		1.25X
1710366-01RE1	1710284-001C 7100440-01	45	40	-	-	-	Redigest due to QC failure. PL 10/16/1	1.25X
1710478-02	DEW-WAT-01	45	40	-	-	-		1.25X
1710581-01	TW PZ-1-20171010	45	40	-	-	-		1.25X

Due Date: 10/25/2017

PREPARATION BENCH SHEET

2700-1
10/20/17 DM

F710411

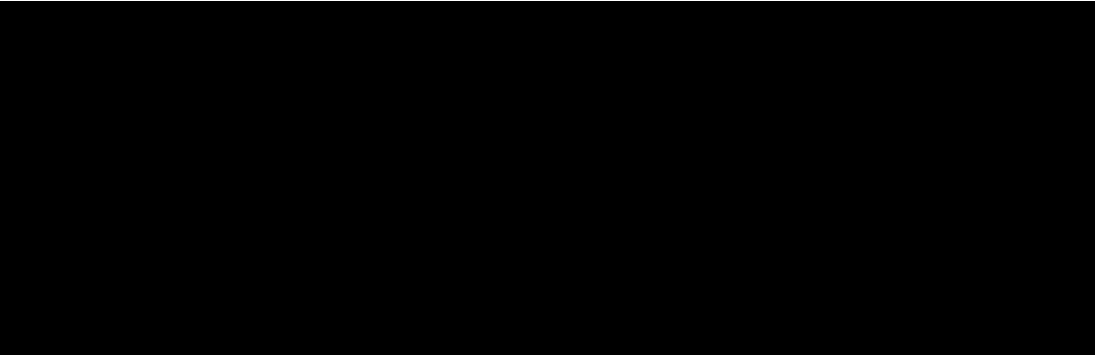
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 10/19/2017

1710581-02	TW PZ-2-20171010	45	40	-	-	-	1.25X (F)
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Methyl Mercury Distillations (EPA 1630)

Name: Dwyer Date: 10-19-17 Batch #: F710411 Sample Matrix: Water
 WO#: 1710143, 1710351, 1710360, 1710366, 1710478, 1710581

The pH of the preserved sample must be documented before an aliquot is removed for preparation.

Digest #	Sample ID Number	Preserved pH	Sample Size (mL)	Final pH (±3)	Time first sample distillation completed:
Blk1	F710411 Blk1	1.0	45	3.0	13:30 PM 10/19/17 Spike ID: <u>1705979</u> Spike Amount: <u>45</u> µL Spike Witness: <u>R 10/19/17</u> Balance #: <u>10/19/17</u> Calibrated? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pipette #: <u>NW09653</u> Cal. Date: <u>10/19/17</u> Pipette #: <u>NW09643</u> Cal. Date: <u>10/18/17</u> Pipette #: <u>NW01152</u> Cal. Date: <u>10/18/17</u> APDC ID: <u>1706209</u> HCl ID: <u>1700-1706208</u> <u>10/19/17</u> Temperature: No set range as the temp. may be changed to keep flow rate of ≥10 mL per hour. Temperature is recorded for informational purposes only. Unit 1: <u>121.0</u> Unit 2: <u>122.0</u> Unit 3: <u>120.3</u> Unit 4: <u>120.6</u> Unit 5: <u>122.0</u> Unit 6: <u>122.0</u> Comments: <u>F710411-source</u> <u>Dupl 1710143-01</u> <u>F710411-MS1 MS01</u> <u>1710143-04</u> <u>F710411-MS2 MS02</u> <u>1710360-01</u> <u>1710581-01 sample</u> <u>was Browning color 10/19/17</u> <u>10/19/17</u>
Blk2	F710411 Blk2	1.0	45	3.0	
Blk3	F710411 Blk3	1.0	45	3.0	
BS1	F710411 BS1	1.0	45	3.0	
BS01	F710411 BS01	6.0	45	3.0	
Dup1	F710411 Dup1	1.0	45	3.0	
MS1	F710411 MS1	1.0	45	3.0	
MS01	F710411 MS01	1.0	45	3.0	
MS2	F710411 MS2	1.0	45	3.0	
MS02	F710411 MS02	1.0	45	3.0	
1	1710143-01 B	1.0	45	3.0	
2	1710143-02 B	1.0	45	3.0	
3	1710143-03 B	1.0	45	3.0	
4	1710143-04 B	1.0	45	3.0	
5	1710143-05 B	1.0	45	4.0	
6	1710143-06 B	1.0	45	3.0	
7	1710351-01 B	1.0	45	3.0	
8	1710351-03 B	1.0	45	3.0	
9	1710351-04 B	1.0	45	4.0	
10	1710351-05 B	1.0	45	4.0	
11	1710351-07 B	1.0	45	4.0	
12	1710351-08 B	1.0	45	3.0	
13	1710360-01 A	1.0	45	3.0	
14	1710360-02 A	1.0	45	3.0	
15	1710360-03 A	1.0	45	3.0	
16	1710360-04 A	1.0	45	4.0	
17	1710366-01 RE1	1.0	45	3.0	
18	1710478-02 A	1.0	45	3.0	
19	1710581-01 A	1.0	45	3.0	
20	1710581-02 A	1.0	45	3.0	



Frontier Global Sciences

MHg27001-171020-2

Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: October 20, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7J22009

Analyst: DM2

Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	24.27 units	485.40	24.27 units	485.40	89.0 %Rec
SEQ-CAL2	1	0.20 ng/L	104.65 units	523.26	104.65 units	523.26	95.9 %Rec
SEQ-CAL3	1	1.00 ng/L	591.99 units	591.99	591.99 units	591.99	108.5 %Rec
SEQ-CAL4	1	2.00 ng/L	1087.55 units	543.78	1087.55 units	543.78	99.7 %Rec
SEQ-CAL5	1	4.00 ng/L	2333.65 units	583.41	2333.65 units	583.41	106.9 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 545.57 +/- 43.90 8.0% RSD 545.57

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	0.00 units		0.00 ng/L	#VALUE!

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.000 ng/L	±0.000
BLK	2	0	0.000 ng/L	
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: R 10/23/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2700-1	DM2	CAL	SEQ-IBL1	1	10/20/17 10:27	26767-1.RAW	10:27:14	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	10/20/17 10:37	26768-1.RAW	10:37:45	24.27			24.3	0.044	0.044	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	10/20/17 10:48	26769-1.RAW	10:48:16	104.65			104.7	0.192	0.192	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	10/20/17 10:58	26770-1.RAW	10:58:46	591.99			592.0	1.085	1.085	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	10/20/17 11:09	26771-1.RAW	11:09:17	1087.55			1087.6	1.993	1.993	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	10/20/17 11:19	26772-1.RAW	11:19:48	2333.65			2333.6	4.277	4.277	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1	1	10/20/17 11:30	26773-1.RAW	11:30:19	280.11			280.1	0.513	0.513	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1	1	10/20/17 11:40	26774-1.RAW	11:40:49	3.13			3.1	0.006	0.006	ng/L	
Hg2700-1	DM2	BLK	F710411-BLK1	1.25	10/20/17 11:51	26775-1.RAW	11:51:20	1.53		X	1.5	0.003	0.003	ng/L	
Hg2700-1	DM2	BLK	F710411-BLK2	1.25	10/20/17 12:01	26776-1.RAW	12:01:51	0.78		X	0.8	0.001	0.002	ng/L	
Hg2700-1	DM2	BLK	F710411-BLK3	1.25	10/20/17 12:12	26777-1.RAW	12:12:22	0.00		X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F710411-BS1	1.25	10/20/17 12:22	26778-1.RAW	12:22:52	355.87		X	355.9	0.652	0.815	ng/L	
Hg2700-1	DM2	SAM	F710411-BSD1	1.25	10/20/17 12:33	26779-1.RAW	12:33:23	391.93		X	391.9	0.718	0.898	ng/L	
Hg2700-1	DM2	SAM	F710411-DUP1	1.25	10/20/17 12:43	26780-1.RAW	12:43:54	27.78		X	27.8	0.051	0.064	ng/L	
Hg2700-1	DM2	SAM	F710411-MS1	1.25	10/20/17 12:54	26781-1.RAW	12:54:25	408.25		X	408.3	0.748	0.935	ng/L	
Hg2700-1	DM2	SAM	F710411-MSD1	1.25	10/20/17 13:04	26782-1.RAW	13:04:55	358.46		X	358.5	0.657	0.821	ng/L	
Hg2700-1	DM2	SAM	F710411-MS2	1.25	10/20/17 13:15	26783-1.RAW	13:15:26	336.74		X	336.7	0.617	0.772	ng/L	
Hg2700-1	DM2	SAM	F710411-MSD2	1.25	10/20/17 13:25	26784-1.RAW	13:25:57	326.12		X	326.1	0.598	0.747	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	10/20/17 13:36	26785-1.RAW	13:36:28	254.91			254.9	0.467	0.467	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	10/20/17 13:46	26786-1.RAW	13:46:58	1.38			1.4	0.003	0.003	ng/L	
Hg2700-1	DM2	SAM	1710143-01	1.25	10/20/17 13:57	26787-1.RAW	13:57:29	22.12		X	22.1	0.041	0.051	ng/L	
Hg2700-1	DM2	SAM	1710143-02	1.25	10/20/17 14:08	26788-1.RAW	14:08:00	25.70		X	25.7	0.047	0.059	ng/L	
Hg2700-1	DM2	SAM	1710143-03	1.25	10/20/17 14:18	26789-1.RAW	14:18:31	19.27		X	19.3	0.035	0.044	ng/L	
Hg2700-1	DM2	SAM	1710143-04	1.25	10/20/17 14:29	26790-1.RAW	14:29:01	20.02		X	20.0	0.037	0.046	ng/L	
Hg2700-1	DM2	SAM	1710143-05	1.25	10/20/17 14:39	26791-1.RAW	14:39:32	19.84		X	19.8	0.036	0.045	ng/L	
Hg2700-1	DM2	SAM	1710143-06	1.25	10/20/17 14:50	26792-1.RAW	14:50:03	13.54		X	13.5	0.025	0.031	ng/L	
Hg2700-1	DM2	SAM	1710351-01	1.25	10/20/17 15:00	26793-1.RAW	15:00:33	29.40		X	29.4	0.054	0.067	ng/L	
Hg2700-1	DM2	SAM	1710351-03	1.25	10/20/17 15:11	26794-1.RAW	15:11:04	14.23		X	14.2	0.026	0.033	ng/L	
Hg2700-1	DM2	SAM	1710351-04	1.25	10/20/17 15:21	26795-1.RAW	15:21:35	41.63		X	41.6	0.076	0.095	ng/L	
Hg2700-1	DM2	SAM	1710351-05	1.25	10/20/17 15:32	26796-1.RAW	15:32:06	40.14		X	40.1	0.074	0.092	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	10/20/17 15:42	26797-1.RAW	15:42:36	255.45			255.4	0.468	0.468	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	10/20/17 15:53	26798-1.RAW	15:53:07	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1710351-07	1.25	10/20/17 16:03	26799-1.RAW	16:03:38	51.26		X	51.3	0.094	0.117	ng/L	
Hg2700-1	DM2	SAM	1710351-08	1.25	10/20/17 16:14	26800-1.RAW	16:14:09	1.81		X	1.8	0.003	0.004	ng/L	
Hg2700-1	DM2	SAM	1710360-01	1.25	10/20/17 16:24	26801-1.RAW	16:24:39	0.00		X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1710360-02	1.25	10/20/17 16:35	26802-1.RAW	16:35:10	6.09		X	6.1	0.011	0.014	ng/L	
Hg2700-1	DM2	SAM	1710360-03	1.25	10/20/17 16:45	26803-1.RAW	16:45:41	0.00		X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1710360-04	1.25	10/20/17 16:56	26804-1.RAW	16:56:12	0.00		X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1710366-01RE1	1.25	10/20/17 17:06	26805-1.RAW	17:06:42	20.17		X	20.2	0.037	0.046	ng/L	
Hg2700-1	DM2	SAM	1710478-02	1.25	10/20/17 17:17	26806-1.RAW	17:17:13	12.05		X	12.0	0.022	0.028	ng/L	
Hg2700-1	DM2	SAM	1710581-01	1.25	10/20/17 17:27	26807-1.RAW	17:27:44	486.91		X	486.9	0.892	1.116	ng/L	
Hg2700-1	DM2	SAM	1710581-02	1.25	10/20/17 17:38	26808-1.RAW	17:38:15	4959.62		X	4959.6	9.091	11.363	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	10/20/17 17:48	26809-1.RAW	17:48:45	281.90			281.9	0.517	0.517	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	10/20/17 17:59	26810-1.RAW	17:59:16	1.33			1.3	0.002	0.002	ng/L	
Hg2700-1	DM2	BLK	F710421-BLK1	500	10/20/17 18:09	26811-1.RAW	18:09:46	0.00		1	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F710421-BLK2	500	10/20/17 18:20	26812-1.RAW	18:20:16	0.00		1	0.0	0.000	0.000	ng/L	

Sample				Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Instrument	Analyst	Type	LabNumber												
Hg2700-1	DM2	BLK	F710421-BLK3 ✓	500	10/20/17 18:30	26813-1.RAW	18:30:46	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLK4 ✓	500	10/20/17 18:41	26814-1.RAW	18:41:17	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLK5 ✓	500	10/20/17 18:51	26815-1.RAW	18:51:48	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLK6 ✓	500	10/20/17 19:02	26816-1.RAW	19:02:18	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLK7 ✓	500	10/20/17 19:12	26817-1.RAW	19:12:49	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F710421-BS1 ✓	1000	10/20/17 19:23	26818-1.RAW	19:23:20	748.69	1		748.7	1.372	1372.305	ng/L	
Hg2700-1	DM2	SAM	F710421-BSD1 ✓	1000	10/20/17 19:33	26819-1.RAW	19:33:50	801.00	1		801.0	1.468	1468.204	ng/L	
Hg2700-1	DM2	SAM	F710421-DUP1 ✓	500	10/20/17 19:44	26820-1.RAW	19:44:21	123.30	1		123.3	0.226	112.998	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4 ✓	1	10/20/17 19:54	26821-1.RAW	19:54:52	259.54	1		259.5	0.476	0.476	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4 ✓	1	10/20/17 20:05	26822-1.RAW	20:05:22	1.21	1		1.2	0.002	0.002	ng/L	
Hg2700-1	DM2	SAM	F710421-MS1 ✓	500	10/20/17 20:15	26823-1.RAW	20:15:53	661.36	1		661.4	1.212	606.117	ng/L	
Hg2700-1	DM2	SAM	F710421-MSD1 ✓	500	10/20/17 20:26	26824-1.RAW	20:26:24	645.43	1		645.4	1.183	591.523	ng/L	
Hg2700-1	DM2	SAM	F710421-MS2 ✓	500	10/20/17 20:36	26825-1.RAW	20:36:54	526.77	1		526.8	0.966	482.773	ng/L	
Hg2700-1	DM2	SAM	F710421-MSD2 ✓	500	10/20/17 20:47	26826-1.RAW	20:47:25	605.33	1		605.3	1.110	554.771	ng/L	
Hg2700-1	DM2	SAM	1708118-01 ✓	500	10/20/17 20:57	26827-1.RAW	20:57:56	129.03	1		129.0	0.237	118.250	ng/L	
Hg2700-1	DM2	SAM	1708118-02 ✓	500	10/20/17 21:08	26828-1.RAW	21:08:27	100.64	1		100.6	0.184	92.236	ng/L	
Hg2700-1	DM2	SAM	1708118-03 ✓	500	10/20/17 21:18	26829-1.RAW	21:18:57	161.91	1		161.9	0.297	148.383	ng/L	
Hg2700-1	DM2	SAM	1708118-04 ✓	500	10/20/17 21:29	26830-1.RAW	21:29:28	136.81	1		136.8	0.251	125.381	ng/L	
Hg2700-1	DM2	SAM	1708118-05 ✓	500	10/20/17 21:39	26831-1.RAW	21:39:59	144.68	1		144.7	0.265	132.599	ng/L	
Hg2700-1	DM2	SAM	1708240-01 ✓	500	10/20/17 21:50	26832-1.RAW	21:50:29	96.48	1		96.5	0.177	88.423	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5 ✓	1	10/20/17 22:01	26833-1.RAW	22:01:00	266.99	1		267.0	0.489	0.489	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5 ✓	1	10/20/17 22:11	26834-1.RAW	22:11:31	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1708240-02 ✓	500	10/20/17 22:22	26835-1.RAW	22:22:01	63.88	1		63.9	0.117	58.543	ng/L	
Hg2700-1	DM2	SAM	1708240-03 ✓	500	10/20/17 22:32	26836-1.RAW	22:32:32	73.32	1		73.3	0.134	67.195	ng/L	
Hg2700-1	DM2	SAM	1708240-04 ✓	500	10/20/17 22:43	26837-1.RAW	22:43:03	88.06	1		88.1	0.161	80.709	ng/L	
Hg2700-1	DM2	SAM	1708240-05 ✓	500	10/20/17 22:53	26838-1.RAW	22:53:33	61.50	1		61.5	0.113	56.359	ng/L	
Hg2700-1	DM2	SAM	1708241-01 ✓	500	10/20/17 23:04	26839-1.RAW	23:04:04	89.65	1		89.7	0.164	82.165	ng/L	
Hg2700-1	DM2	SAM	1708241-02 ✓	500	10/20/17 23:14	26840-1.RAW	23:14:35	151.15	1		151.2	0.277	138.528	ng/L	
Hg2700-1	DM2	SAM	1708241-03 ✓	500	10/20/17 23:25	26841-1.RAW	23:25:05	152.41	1		152.4	0.279	139.684	ng/L	
Hg2700-1	DM2	SAM	1708241-04 ✓	500	10/20/17 23:35	26842-1.RAW	23:35:36	213.70	1		213.7	0.392	195.854	ng/L	
Hg2700-1	DM2	SAM	1708241-05 ✓	500	10/20/17 23:46	26843-1.RAW	23:46:07	137.84	1		137.8	0.253	126.330	ng/L	
Hg2700-1	DM2	SAM	1708241-11 ✓	500	10/20/17 23:56	26844-1.RAW	23:56:37	114.70	1		114.7	0.210	105.116	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6 ✓	1	10/20/17 0:07	26845-1.RAW	0:07:08	245.62	1		245.6	0.450	0.450	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6 ✓	1	10/20/17 0:17	26846-1.RAW	0:17:39	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1708241-12 ✓	500	10/20/17 0:28	26847-1.RAW	0:28:09	95.58	1		95.6	0.175	87.597	ng/L	
Hg2700-1	DM2	SAM	1708241-13 ✓	500	10/20/17 0:38	26848-1.RAW	0:38:40	104.99	1		105.0	0.192	96.218	ng/L	
Hg2700-1	DM2	SAM	1708241-14 ✓	500	10/20/17 0:49	26849-1.RAW	0:49:11	45.62	1		45.6	0.084	41.812	ng/L	
Hg2700-1	DM2	SAM	1708241-15 ✓	500	10/20/17 0:59	26850-1.RAW	0:59:41	102.01	1		102.0	0.187	93.488	ng/L	
Hg2700-1	DM2	SAM	F710421-BS2 ✓	1000	10/20/17 1:10	26851-1.RAW	1:10:12	608.39	1		608.4	1.115	1115.151	ng/L	
Hg2700-1	DM2	SAM	F710421-BSD2 ✓	1000	10/20/17 1:20	26852-1.RAW	1:20:43	591.65	1		591.6	1.084	1084.459	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV7 ✓	1	10/20/17 1:31	26853-1.RAW	1:31:13	236.36	1		236.4	0.433	0.433	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB7 ✓	1	10/20/17 1:41	26854-1.RAW	1:41:44	0.00	1		0.0	0.000	0.000	ng/L	

ANALYSIS SEQUENCE

7J22009

Instrument: Hg2700-1 ✓

Calibration ID: UNASSIGNED

Analyzed: 10/20/2017 ✓

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J22009-IBL1 ✓	QC	1			
7J22009-CAL1 ✓	QC	2	1706041	✓	
7J22009-CAL2 ✓	QC	3	1706042	✓	
7J22009-CAL3 ✓	QC	4	1706043	✓	
7J22009-CAL4 ✓	QC	5	1706044	✓	
7J22009-CAL5 ✓	QC	6	1706045	✓	
7J22009-ICV1 ✓	QC	7	1705084	✓	
7J22009-ICB1 ✓	QC	8			
7J22009-CCV1 ✓	QC	9	1705084	✓	
7J22009-CCB1 ✓	QC	10			
7J22009-CCV2 ✓	QC	11	1705084	✓	
7J22009-CCB2 ✓	QC	12			
7J22009-CCV3 ✓	QC	13	1705084	✓	
7J22009-CCB3 ✓	QC	14			
F710421-BLK1 ✓	QC	15			
F710421-BLK2 ✓	QC	16			
F710421-BLK3 ✓	QC	17			
F710421-BLK4 ✓	QC	18			
F710421-BLK5 ✓	QC	19			
F710421-BLK6 ✓	QC	20			
F710421-BLK7 ✓	QC	21			
F710421-BS1 ✓	QC	22			
F710421-BSD1 ✓	QC	23			
F710421-DUP1 ✓	QC	24			
7J22009-CCV4 ✓	QC	25	1705084	✓	
7J22009-CCB4 ✓	QC	26			
F710421-MS1 ✓	QC	27			
F710421-MSD1 ✓	QC	28			
F710421-MS2 ✓	QC	29			
F710421-MSD2 ✓	QC	30			
1708118-01 ✓	MHg-CVAFS-T-KOH	31			
1708118-02 ✓	MHg-CVAFS-T-KOH	32			
1708118-03 ✓	MHg-CVAFS-T-KOH	33			
1708118-04 ✓	MHg-CVAFS-T-KOH	34			
1708118-05 ✓	MHg-CVAFS-T-KOH	35			

Due Date: 11/15/2017

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ANALYSIS SEQUENCE

7J22009

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/20/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708240-01 ✓	MHg-CVAFS-T-KOH	36			
7J22009-CCV5 ✓	QC	37	1705084 ✓		
7J22009-CCB5 ✓	QC	38			
1708240-02 ✓	MHg-CVAFS-T-KOH	39			
1708240-03 ✓	MHg-CVAFS-T-KOH	40			
1708240-04 ✓	MHg-CVAFS-T-KOH	41			
1708240-05 ✓	MHg-CVAFS-T-KOH	42			
1708241-01 ✓	MHg-CVAFS-T-KOH	43			
1708241-02 ✓	MHg-CVAFS-T-KOH	44			
1708241-03 ✓	MHg-CVAFS-T-KOH	45			
1708241-04 ✓	MHg-CVAFS-T-KOH	46			
1708241-05 ✓	MHg-CVAFS-T-KOH	47			
1708241-11 ✓	MHg-CVAFS-T-KOH	48			
7J22009-CCV6 ✓	QC	49	1705084 ✓		
7J22009-CCB6 ✓	QC	50			
1708241-12 ✓	MHg-CVAFS-T-KOH	51			
1708241-13 ✓	MHg-CVAFS-T-KOH	52			
1708241-14 ✓	MHg-CVAFS-T-KOH	53			
1708241-15 ✓	MHg-CVAFS-T-KOH	54			
F710421-BS2 ✓	QC	55			
F710421-BSD2 ✓	QC	56			
7J22009-CCV7 ✓	QC	57	1705084 ✓		
7J22009-CCB7 ✓	QC	58			

 Dan Moxem 10/20/17
 Samples Loaded By Date

 Dan Moxem 10/22/17
 Data Processed By Date

PREPARATION BENCH SHEET

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710421-BLK1	Blank	0.25	20					
F710421-BLK2	Blank	0.25	20					
F710421-BLK3	Blank	0.25	20					
F710421-BLK4	Blank	0.282	20					Pre-homogenization Blank for 1708118/1708119
F710421-BLK5	Blank	0.27	20					Post-homogenization Blank for 1708118/1708119
F710421-BLK6	Blank	0.283	20					Pre-homogenization Blank for 1708240/1708241
F710421-BLK7	Blank	0.278	20					Pre-homogenization Blank for 1708240/1708241
F710421-BS1	LCS	0.1259	20	1705412	125.9			
F710421-BS2	LCS	0.1259	20	1705412	125.9			
F710421-BSD1	LCS Dup	0.1275	20	1705412	127.5			
F710421-BSD2	LCS Dup	0.1275	20	1705412	127.5			
F710421-DUP1	Duplicate [1708118-01]	0.263	20					
F710421-MS1	Matrix Spike [1708118-01]	0.262	20	1705977	100			
F710421-MS2	Matrix Spike [1708241-01]	0.275	20	1705977	100			
F710421-MSD1	Matrix Spike Dup [1708118-01]	0.256	20	1705977	100			
F710421-MSD2	Matrix Spike Dup [1708241-01]	0.265	20	1705977	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705412	DORM-4	06-Jan-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
		06-Jan-20 00:00	1704707	Acetate Buffer	29-Jan-18 00:00
1705977	MHg New Primary 100 ng/mL spike	15-Sep-18 00:00	1705427	Methanol, HPLC Grade	08-Sep-20 00:00
			1705837	25% KOH/Methanol	03-Feb-18 00:00
			1706016	Ethylating Agent (For Methyl Mercury Analysis)	08-Apr-18 00:00

PREPARATION BENCH SHEET

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708118-01	OB-01_17HC001_072517_POL_01_WB	0.254	20	QC	-	-	MS/MSD	
1708118-02	OB-01_17HC001_072517_POL_02_WB	0.265	20	-	-	-		
1708118-03	OB-01_17HC001_072517_POL_03_WB	0.288	20	-	-	-		
1708118-04	OB-01_17HC001_072517_POL_04_WB	0.256	20	-	-	-		
1708118-05	OB-01_17HC001_072517_POL_05_WB	0.258	20	-	-	-		
1708240-01	MM-MR_INT_17HC001_080117_POL_01_WB	0.268	20	-	-	-		
1708240-02	MM-MR_INT_17HC001_080117_POL_02_WB	0.285	20	-	-	-		
1708240-03	MM-MR_INT_17HC001_080117_POL_03_WB	0.275	20	-	-	-		
1708240-04	MM-MR_INT_17HC001_080117_POL_04_WB	0.273	20	-	-	-		
1708240-05	MM-MR_INT_17HC001_080117_POL_05_WB	0.268	20	-	-	-		
1708241-01	ES-02E_17HC001_073117_POL_01_WB	0.26	20	QC	-	-	MS/MSD	
1708241-02	ES-02E_17HC001_073117_POL_02_WB	0.269	20	-	-	-		
1708241-03	ES-02E_17HC001_073117_POL_03_WB	0.287	20	-	-	-		
1708241-04	ES-02E_17HC001_073117_POL_04_WB	0.26	20	-	-	-		
1708241-05	ES-02E_17HC001_073117_POL_05_WB	0.273	20	-	-	-		
1708241-11	BFK_17HC001_073117_POL_01_WB	0.26	20	-	-	-		
1708241-12	BFK_17HC001_073117_POL_02_WB	0.255	20	-	-	-		
1708241-13	BFK_17HC001_073117_POL_03_WB	0.257	20	-	-	-		
1708241-14	BFK_17HC001_073117_POL_04_WB	0.254	20	-	-	-		

PREPARATION BENCH SHEET

F710421

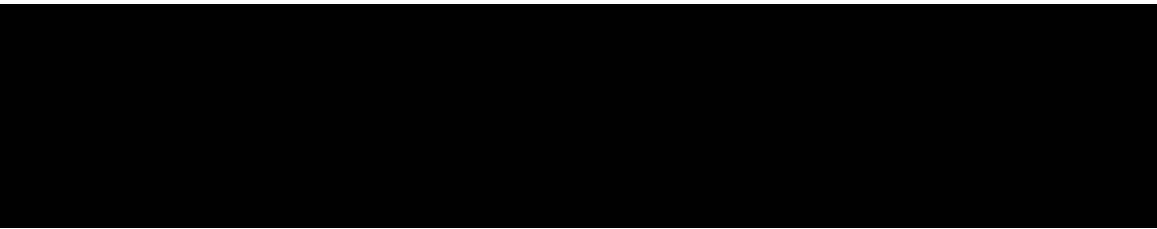
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

1708241-15	BFK_17HC001_073117_POL_05_WB	0.258	20	-	-	-		
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PREPARATION BENCH SHEET

2700-1

10/20/17 JM

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710421-BLK1	Blank	0.25	20					500X
F710421-BLK2	Blank	0.25	20					500X ✓
F710421-BLK3	Blank	0.25	20					500X ✓
F710421-BLK4	Blank	0.282	20					Pre-homogenization Blank for 1708118/1708119 500X ✓
F710421-BLK5	Blank	0.27	20					Post-homogenization Blank for 1708118/1708119 500X ✓
F710421-BLK6	Blank	0.283	20					Pre-homogenization Blank for 1708240/1708241 500X ✓
F710421-BLK7	Blank	0.278	20					Pre-homogenization Blank for 1708240/1708241 500X ✓
F710421-BS1	LCS	0.1259	20	1705412	125.9			1000X ✓
F710421-BSD1	LCS Dup	0.1275	20	1705412	127.5			1000X ✓
F710421-DUP1	Duplicate [1708118-01]	0.263	20					500X ✓
F710421-MS1	Matrix Spike [1708118-01]	0.262	20	1705977	100			500X ✓
F710421-MS2	Matrix Spike [1708241-01]	0.275	20	1705977	100			500X ✓
F710421-MSD1	Matrix Spike Dup [1708118-01]	0.256	20	1705977	100			500X ✓
F710421-MSD2	Matrix Spike Dup [1708241-01]	0.265	20	1705977	100			500X ✓

<u>Standard ID(s):</u> 1705412	<u>Description:</u> DORM-4	<u>Expiration:</u> 06-Jan-20 00:00	<u>Reagent ID(s):</u> 1702551	<u>Description:</u> Boiling Chips for AFS prep	<u>Expiration:</u> 31-Dec-17 00:00
1705977	MHg New Primary 100 ng/mL spike	06-Jan-20 00:00	1705427	Methanol, HPLC Grade	08-Sep-20 00:00
		15-Sep-18 00:00	1705837	25% KOH/Methanol	03-Feb-18 00:00

1704707

1706016

PREPARATION BENCH SHEET

2700-1
10/20/17 DM

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708118-01	OB-01_17HC001_072517_POL_01_WB	0.254	20	QC	-	-	MS/MSD	500X -
1708118-02	OB-01_17HC001_072517_POL_02_WB	0.265	20	-	-	-		500X -
1708118-03	OB-01_17HC001_072517_POL_03_WB	0.288	20	-	-	-		500X -
1708118-04	OB-01_17HC001_072517_POL_04_WB	0.256	20	-	-	-		500X -
1708118-05	OB-01_17HC001_072517_POL_05_WB	0.258	20	-	-	-		500X -
1708240-01	MM-MR_INT_17HC001_080117_POL_01_WB	0.268	20	-	-	-		500X -
1708240-02	MM-MR_INT_17HC001_080117_POL_02_WB	0.285	20	-	-	-		500X -
1708240-03	MM-MR_INT_17HC001_080117_POL_03_WB	0.275	20	-	-	-		500X -
1708240-04	MM-MR_INT_17HC001_080117_POL_04_WB	0.273	20	-	-	-		500X -
1708240-05	MM-MR_INT_17HC001_080117_POL_05_WB	0.268	20	-	-	-		500X -
1708241-01	ES-02E_17HC001_073117_POL_01_WB	0.26	20	QC	-	-	MS/MSD	500X -
1708241-02	ES-02E_17HC001_073117_POL_02_WB	0.269	20	-	-	-		500X -
1708241-03	ES-02E_17HC001_073117_POL_03_WB	0.287	20	-	-	-		500X -
1708241-04	ES-02E_17HC001_073117_POL_04_WB	0.26	20	-	-	-		500X -
1708241-05	ES-02E_17HC001_073117_POL_05_WB	0.273	20	-	-	-		500X -
1708241-11	BFK_17HC001_073117_POL_01_WB	0.26	20	-	-	-		500X -
1708241-12	BFK_17HC001_073117_POL_02_WB	0.255	20	-	-	-		500X -
1708241-13	BFK_17HC001_073117_POL_03_WB	0.257	20	-	-	-		500X -
1708241-14	BFK_17HC001_073117_POL_04_WB	0.254	20	-	-	-		500X -

PREPARATION BENCH SHEET

2000-1

10/20/17 DM

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

1708241-15	BFK_17HC001_073117_POL_05_WB	0.258	20	-	-	-	500X
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Technician: CF Batch#: F710421 Date: 10/19/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon

Balance #: 6.19 (200mm) Calibrated? Yes No Therm. #: 13698 Calibrated? Yes No

*Time in: 19:15 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C

Time out: 22:15 Actual Temp. (raw): Timer °C w/ CF: Timer °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705427) Spike vol.: 100 µL (LIMS ID: 1705477)

Spike Witness: DM 10/19/17 (initial and date)

HCl LIMS ID: N/A

HNO₃ LIMS ID: N/A

70/30 LIMS ID: N/A

Other Acid LIMS ID: KOH/methanol: 1705897

Glass Vial # 00088647 Boiling Chip lot # 1702551 *Hotblock Position: AB

Pipette SN#: NU09663 Calibration Date: 10/18/17

Pipette SN#: NU01192 Calibration Date: 10/18/17

Dispenser #: 02N48426 Calibrated? Yes No

Dispenser #: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710421 - Blk1	0.256	23	1708240 - 04	0.273	BS1/BSD1 = D08RM4
2	F710421 - Blk2	0.278	24	1708240 - 05	0.268	BS1/BSD1 = 1705427
3	F710421 - Blk3	0.250	25	1708241 - 01	0.260	MS/MSD
4	F710421 - Blk4	0.282	26	1708241 - 02	0.269	Comments
5	F710421 - Blk5	0.270	27	1708241 - 03	0.287	MS/MSD = spiked
6	F710421 - Blk6	0.283	28	1708241 - 04	0.260	with 100µL
7	F710421 - Blk7	0.278	29	1708241 - 05	0.273	1705997
8	F710421 - BS1	0.1259	30	1708241 - 11	0.260	D08/MS1/MSD1
9	F710421 - BSD1	0.1275	31	1708241 - 12	0.255	source: 1708118-01
10	170888 1708118 - 01	0.254	32	1708241 - 13	0.257	MS2/MSD2
11	F710421 - D081	0.263	33	1708241 - 14	0.254	source: 1708241-01
12	F710421 - MS1	0.262	34	1708241 - 15	0.258	
13	F710421 - MSD1	0.256	35			Blk 4-5 are Pre/Post blanks for 1708118/1708119
14	1708118 - 02	0.265	36			
15	1708118 - 03	0.288	37			
16	1708118 - 04	0.256	38			
17	1708118 - 05	0.258	39			Blk 6-7 are Pre/Post blanks for 1708240 and 1708241
18	1708240 - 01	0.268	40			
19	F710421 - MS2	0.275	41			
20	F710421 - MSD2	0.265	42			
21	1708240 - 02	0.285	43			
22	1708240 - 03	0.275	44			

Failing Data Report - 7J22009

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F710421-BS1	MHg-CVAFS-T-KOH	218.0	7.9			322.00	ng/g	67.7	70.00	130.00			PASS-OVER	FAIL-BS	
F710421-BS2	MHg-CVAFS-T-KOH	177.1	7.9			322.00	ng/g	55.0	70.00	130.00			PASS-OVER	FAIL-BS	
F710421-BSD2	MHg-CVAFS-T-KOH	170.1	7.8	177.1		322.00	ng/g	52.8	70.00	130.00	4.05	25.00	PASS-OVER	FAIL-BSD (Rec.)	

Handwritten initials/signature

T. Don *M. Green*
 Analyst Reviewed By

10/22/17
 Date

[Signature]
 Peer Reviewed By

10/23/17
 Date

Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)

Analyst:	DON MORAN	Sequence #:	7J22008, 7J22009
Reviewer:	<i>R 10/23/17</i>	Dataset ID #:	MHG27001-171020-1, MHG27001-171020-2
Date:	10-22-17	WO #:	VARIOUS
Batch #(s):	F710421, F710411	Client(s):	VARIOUS

• Select the correct preparation method.

Additional Comments:

Analyte	Prep Method	Matrix
<input checked="" type="checkbox"/> MHg	SOP2797 MHg Distillation	Water
<input checked="" type="checkbox"/> MHg	SOP2986 KOH/MeOH Digest	Tissue
<input type="checkbox"/> MHg	SOP5134 MeCl Extraction	Sed/Soil
<input type="checkbox"/> DMHg	SOP2816 (None Accredited method)	ALL

Analyst Initials:

Dm

Reviewer Initials:

R 10/23/17

- | | | | |
|---|--|--|---|
| 1. Compare Sample ID with Bench sheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Bench sheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Reviewer: 100% of peak heights checked | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Are there peak height errors? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (c) Error on a sample: Do peak heights, responses, & initial results match corrected data? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| (d) Error on a Cal Pt, ICB/CCB, or PB: Has the data been reimported? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| (e) Check standards & reagents in sequence & bench sheet for correct usage (i.e. expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (f) Check and compare masses (review prep bench sheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (g) Check and compare initial and final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (h) Do aliquots and dilutions written on benchsheet match those in Excel? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (i) Is the pH>3.0 for all distilled samples? _____ | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (j) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (k) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (l) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (m) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5. 20 or fewer samples in batch? _____ | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) 3 PBs, 1 LCS/LCSD (or BS/BSD), 2 MS/MSD/MD per batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) 1 CCV and 1 CCB every 10 analytical runs? _____ | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | |
| 6. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A |
| Comments: _____ | | | |
| 7. 1st Calibration Standard % Recoveries (65-135%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A |
| Comments: _____ | | | |
| 8. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> |
| Comments: _____ | | | |

Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)

Analyst:	DON MORAN	Sequence #:	7J22008, 7J22009
Reviewer:	0 <i>R 10/23/17</i>	Dataset ID #:	MHG27001-171020-1, MHG27001-171020-2
Date:	10/22/2017	WO #:	VARIOUS
Batch #(s):	F710421, F710411	Client(s):	VARIOUS

Analyst Initials:

Reviewer Initials:

DM

R 10/23/17

- | | | | |
|--|--|--|---|
| 9. ICV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 10. CCV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 11. Are the absolute value of the ICB and CCBs < PQL? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%) | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: F710421-BS1, BS2, BSD2 FAILED. LOW RECOVERY | | | |
| 13. LCS/LCSD or BS/BSD RPD (< 25%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 14. Water: Average of Preparation Blanks < 0.045 ng/L and standard deviation of 0.015 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 15. Sediment/Tissue: Individually, are the Preparation Blanks < PQL for the matrix? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| 16. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 17. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 18. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 19. MD RPD/MT RSD(< 35%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 20. Is there one set of MS/MSD per every 10 samples? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. MS/MSD RPD(< 35%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. MS (AS) % Recoveries (65-130%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. MSD (ASD) % Recoveries (65-130%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 25. Are all samples within instrument calibration range (or at maximum aliquot size)? | <input checked="" type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: 1710581-02 HIGH SAMPLE. ABOVE CAL5 | | | |
| 26. For instrumental dilutions, is the dilution factor in excel correct? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Is the sample volume, diluents, and final volume of the dilution noted on benchsheet? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 27. Dissolved < Total metals (if applicable) | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Effluent < Influent metals (visually confirm if needed) | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |

Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)

Analyst:	DON MORAN	Sequence #:	7J22008, 7J22009
Reviewer:	0 R 10/23/17	Dataset ID #:	MHG27001-171020-1, MHG27001-171020-2
Date:	10/22/2017	WO #:	VARIOUS
Batch #(s):	F710421, F710411	Client(s):	VARIOUS

Analyst Initials:

DM

Reviewer Initials:

R 10/23/17

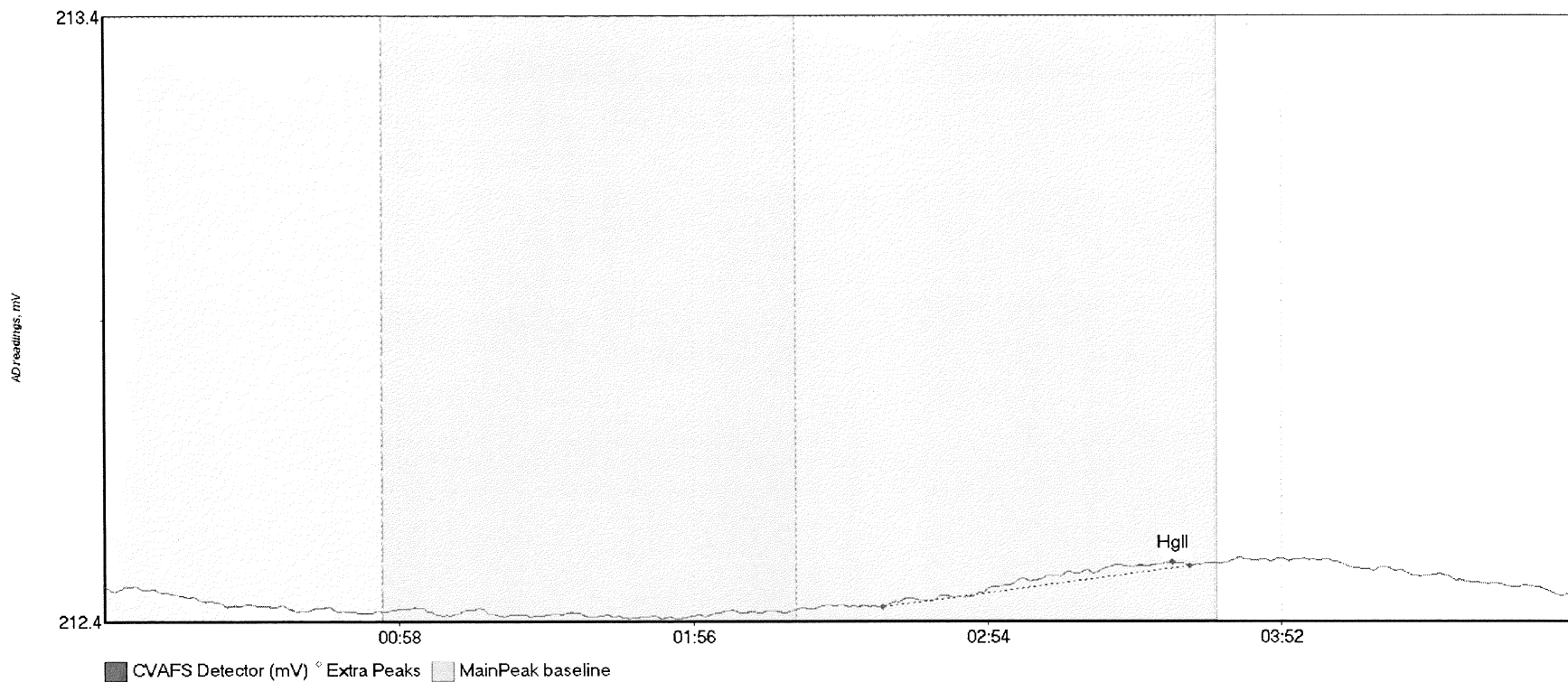
29. Are re-runs noted with reason? YES NO N/A
- Comments: _____
30. For failing QC (CCV, CCB, PB, BS/BSD, CAL): YES NO N/A
- Was a bubbler and trap test run before the analytical run continued?
 Comments: _____
31. Do re-run results compare to initial analysis (< 35% RPD)? YES NO N/A
- Comments: _____
32. Are qualifiers consistent with the data review flowcharts? YES NO N/A
- Comments: _____
33. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
- Comments: _____
34. Have re-extracts been created for non-reportable samples? YES NO N/A
35. Narrations in MMO box in LIMS?
 Comments: _____
36. Are there any HIGH QA projects within the data? YES NO
 If so, place dataset to the QA office.
37. Does the data set need scanning? YES N/A
- Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs
38. Date of analyst IDOC/CDOC: 6/13/2017 IDOC/CDOC within last 12 months? YES NO
39. Date of analyst's SOP reading: 5/23/2016 Current SOP revision? YES NO
40. Date of LOD: 4/24/17, 5/8/17 LOD within last 3 months (within 12 months for MDN)? YES NO N/A
41. Date of LOQ: 4/24/17, 5/8/17 LOQ within last 3 months (within 12 months for MDN)? YES NO N/A
42. If MDN samples, date of last MDL study: _____
43. MDL study within last 12 months? YES NO N/A
- Data can not be reported without a current IDOC/CDOC, LOD or LOQ.**
- Additional Comments: YES NO

MethylMercury EPA1630 Operat DM BlankSub: Calib Eqn: Run Date: ##### Blank SD: Works1 MHG27C CalibFactor: Status: Calibank error: Zero Per Run Time: 0:00:00 Blank RSD%: Methoc 2010-01 R: R*: CalibAnalyte: CF SD: CF RSD%:

Sample/ID	Locator	Rinse	Dilute	Blank	ConcHq0(p)	ConcMeHq(ConcHq2(p)	ConcPrHq(r)	Rec%	QA	RawData	RunEnd	PeakHq0 (Raw)	PeakMeHq (R)	PeakHq2(Raw)	PeakPrHq(Ra)	Control (etf)	Flags	RunCount
Clean																			
WS	A1										26765-1.RAW	10:06:13	0.00	0.00	5.81	0.00	cleandrv	OK	1
SEQ-IBL1	A2		1								26766-1.RAW	10:16:43	8.68	0.00	1.63	0.00	psample10	OK	1
SEQ-CAL1	A3		1								26767-1.RAW	10:27:14	6.52	0.00	6.19	0.00	psample10	OK	1
SEQ-CAL2	A4		1								26768-1.RAW	10:37:45	4.08	24.27	1.77	0.00	psample10	OK	1
SEQ-CAL3	A5		1								26769-1.RAW	10:48:16	6.61	104.65	6.72	0.00	psample10	OK	1
SEQ-CAL4	A6		1								26770-1.RAW	10:58:46	8.27	591.99	10.62	0.00	psample10	OK	1
SEQ-CAL5	A7		1								26771-1.RAW	11:09:17	8.70	1087.55	24.43	0.00	psample10	OK	1
SEQ-ICV1	A8		1								26772-1.RAW	11:19:48	15.03	2333.65	51.04	0.00	psample10	CT	1
SEQ-ICB1	A9		1								26773-1.RAW	11:30:19	5.96	280.11	5.67	0.00	psample10	CT	1
F710411-BLK1	A10		1.25								26774-1.RAW	11:40:49	4.81	3.13	0.00	0.00	psample10	OK	1
F710411-BLK2	A11		1.25								26775-1.RAW	11:51:20	5.88	1.53	12.57	0.00	psample10	OK	1
F710411-BLK3	A12		1.25								26776-1.RAW	12:01:51	4.03	0.78	5.58	0.00	psample10	OK	1
F710411-BS1	A13		1.25								26777-1.RAW	12:12:22	3.03	0.00	9.33	0.00	psample10	OK	1
F710411-BSD1	A14		1.25								26778-1.RAW	12:22:52	3.42	355.87	12.73	0.00	psample10	OK	1
F710411-DUP1	A15		1.25								26779-1.RAW	12:33:23	6.26	391.93	13.81	0.00	psample10	OK	1
F710411-MS1	A16		1.25								26780-1.RAW	12:43:54	3.99	27.78	47.61	0.00	psample10	OK	1
F710411-MSD1	A17		1.25								26781-1.RAW	12:54:25	6.86	408.25	48.79	0.00	psample10	OK	1
F710411-MS2	A18		1.25								26782-1.RAW	13:04:55	6.34	358.46	30.18	0.00	psample10	OK	1
F710411-MSD2	A19		1.25								26783-1.RAW	13:15:26	6.75	336.74	25.58	0.00	psample10	OK	1
SEQ-CCV1	A20		1								26784-1.RAW	13:25:57	4.84	326.12	37.13	0.00	psample10	OK	1
SEQ-CCB1	A21		1								26785-1.RAW	13:36:28	5.16	254.91	4.40	0.00	psample10	CT	1
1710143-01	B1		1.25								26786-1.RAW	13:46:58	2.62	1.38	2.38	0.00	psample10	OK	1
1710143-02	B2		1.25								26787-1.RAW	13:57:29	2.71	22.12	60.28	0.00	psample10	OK	1
1710143-03	B3		1.25								26788-1.RAW	14:08:00	3.71	25.70	30.26	0.00	psample10	OK	1
1710143-04	B4		1.25								26789-1.RAW	14:18:31	4.74	19.27	20.33	0.00	psample10	OK	1
1710143-05	B5		1.25								26790-1.RAW	14:29:01	3.42	20.02	174.73	0.00	psample10	OK	1
1710143-06	B6		1.25								26791-1.RAW	14:39:32	3.69	19.84	33.39	0.00	psample10	OK	1
1710351-01	B7		1.25								26792-1.RAW	14:50:03	5.32	13.54	8.46	0.00	psample10	OK	1
1710351-03	B8		1.25								26793-1.RAW	15:00:33	4.09	29.40	95.88	0.00	psample10	OK	1
1710351-04	B9		1.25								26794-1.RAW	15:11:04	8.03	14.23	436.65	0.00	psample10	CT	1
1710351-05	B10		1.25								26795-1.RAW	15:21:35	2.89	41.63	78.20	0.00	psample10	OK	1
SEQ-CCV2	B11		1								26796-1.RAW	15:32:06	5.15	40.14	80.13	0.00	psample10	CT	1
SEQ-CCB2	B12		1								26797-1.RAW	15:42:36	2.42	255.45	2.48	0.00	psample10	OK	1
1710351-07	B13		1.25								26798-1.RAW	15:53:07	2.54	0.00	10.74	0.00	psample10	CT	1
1710351-08	B14		1.25								26799-1.RAW	16:03:38	4.48	51.26	35.17	0.00	psample10	OK	1
1710360-01	B15		1.25								26800-1.RAW	16:14:09	4.09	1.81	3.34	0.00	psample10	OK	1
1710360-02	B16		1.25								26801-1.RAW	16:24:39	4.55	0.00	20.94	0.00	psample10	OK	1
1710360-03	B17		1.25								26802-1.RAW	16:35:10	4.35	6.09	314.73	0.00	psample10	OK	1
1710360-04	B18		1.25								26803-1.RAW	16:45:41	4.42	0.00	17.14	0.00	psample10	OK	1
1710366-01RE1	B19		1.25								26804-1.RAW	16:56:12	3.54	0.00	15.16	0.00	psample10	OK	1
1710478-02	B20		1.25								26805-1.RAW	17:06:42	0.99	20.17	58.80	0.00	psample10	OK	1
1710581-01	B21		1.25								26806-1.RAW	17:17:13	3.12	12.05	26.01	0.00	psample10	OK	1
1710581-02	C1		1.25								26807-1.RAW	17:27:44	11.08	486.91	2057.18	0.00	psample10	OK	1
SEQ-CCV3	C2		1								26808-1.RAW	17:38:15	5493.16	4959.62	216093.96	0.00	psample10	CT	1
SEQ-CCB3	C3		1								26809-1.RAW	17:48:45	138.30	281.90	1197.19	0.00	psample10	CT	1
F710421-BLK1	C4		500								26810-1.RAW	17:59:16	56.18	1.33	329.32	0.00	psample10	CT	1
F710421-BLK2	C5		500								26811-1.RAW	18:09:46	38.05	0.00	181.21	0.00	psample10	OK	1
F710421-BLK3	C6		500								26812-1.RAW	18:20:16	24.07	0.00	115.49	0.00	psample10	CT	1
*F710421-BLK4	C7		500								26813-1.RAW	18:30:46	19.04	0.00	85.80	0.00	psample10	CT	1
*F710421-BLK5	C8		500								26814-1.RAW	18:41:17	15.80	0.00	60.77	0.00	psample10	OK	1
*F710421-BLK6	C9		500								26815-1.RAW	18:51:48	15.66	0.00	55.61	0.00	psample10	CT	1
*F710421-BLK7	C10		500								26816-1.RAW	19:02:18	12.33	0.00	39.38	0.00	psample10	OK	1
F710421-BS1	C11		1000								26817-1.RAW	19:12:49	6.19	0.00	41.40	0.00	psample10	OK	1
F710421-BSD1	C12		1000								26818-1.RAW	19:23:20	17.98	748.69	152.59	0.00	psample10	OK	1
F710421-DUP1	C13		500								26819-1.RAW	19:33:50	22.78	801.00	145.79	0.00	psample10	OK	1
SEQ-CCV4	C14		1								26820-1.RAW	19:44:21	15.73	123.30	282.21	0.00	psample10	OK	1
SEQ-CCB4	C15		1								26821-1.RAW	19:54:52	12.31	259.54	20.36	0.00	psample10	CT	1
F710421-MS1	C16		500								26822-1.RAW	20:05:22	11.15	1.21	18.04	0.00	psample10	OK	1
F710421-MSD1	C17		500								26823-1.RAW	20:15:53	14.11	661.36	305.83	0.00	psample10	OK	1
F710421-MS2	C18		500								26824-1.RAW	20:26:24	15.16	645.43	302.80	0.00	psample10	OK	1
F710421-MSD2	C19		500								26825-1.RAW	20:36:54	21.64	526.77	525.81	0.00	psample10	OK	1
1708118-01	C20		500								26826-1.RAW	20:47:25	26.88	605.33	508.43	0.00	psample10	CT	1
1708118-02	C21		500								26827-1.RAW	20:57:56	14.44	129.03	298.98	0.00	psample10	OK	1
1708118-03	A1		500								26828-1.RAW	21:08:27	13.32	100.64	264.96	0.00	psample10	OK	1
1708118-04	A2		500								26829-1.RAW	21:18:57	13.02	161.91	330.36	0.00	psample10	OK	1
1708118-05	A3		500								26830-1.RAW	21:29:28	18.47	136.81	309.13	0.00	psample10	CT	1
1708240-01	A4		500								26831-1.RAW	21:39:59	17.46	144.68	339.11	0.00	psample10	CT	1
SEQ-CCV5	A5		1								26832-1.RAW	21:50:29	19.75	96.48	462.94	0.00	psample10	OK	1
SEQ-CCB5	A6		1								26833-1.RAW	22:01:00	10.78	266.99	59.16	0.00	psample10	CT	1
1708240-02	A7		500								26834-1.RAW	22:11:31	5.43	0.00	32.87	0.00	psample10	OK	1
1708240-03	A8		500								26835-1.RAW	22:22:01	14.96	63.88	408.35	0.00	psample10	CT	1
1708240-04	A9		500								26836-1.RAW	22:32:32	12.75	73.32	306.07	0.00	psample10	CT	1
1708240-05	A10		500								26837-1.RAW	22:43:03	13.22	88.06	578.63	0.00	psample10	OK	1
											26838-1.RAW	22:53:33	18.78	61.50	501.25	0.00	psample10	CT	1

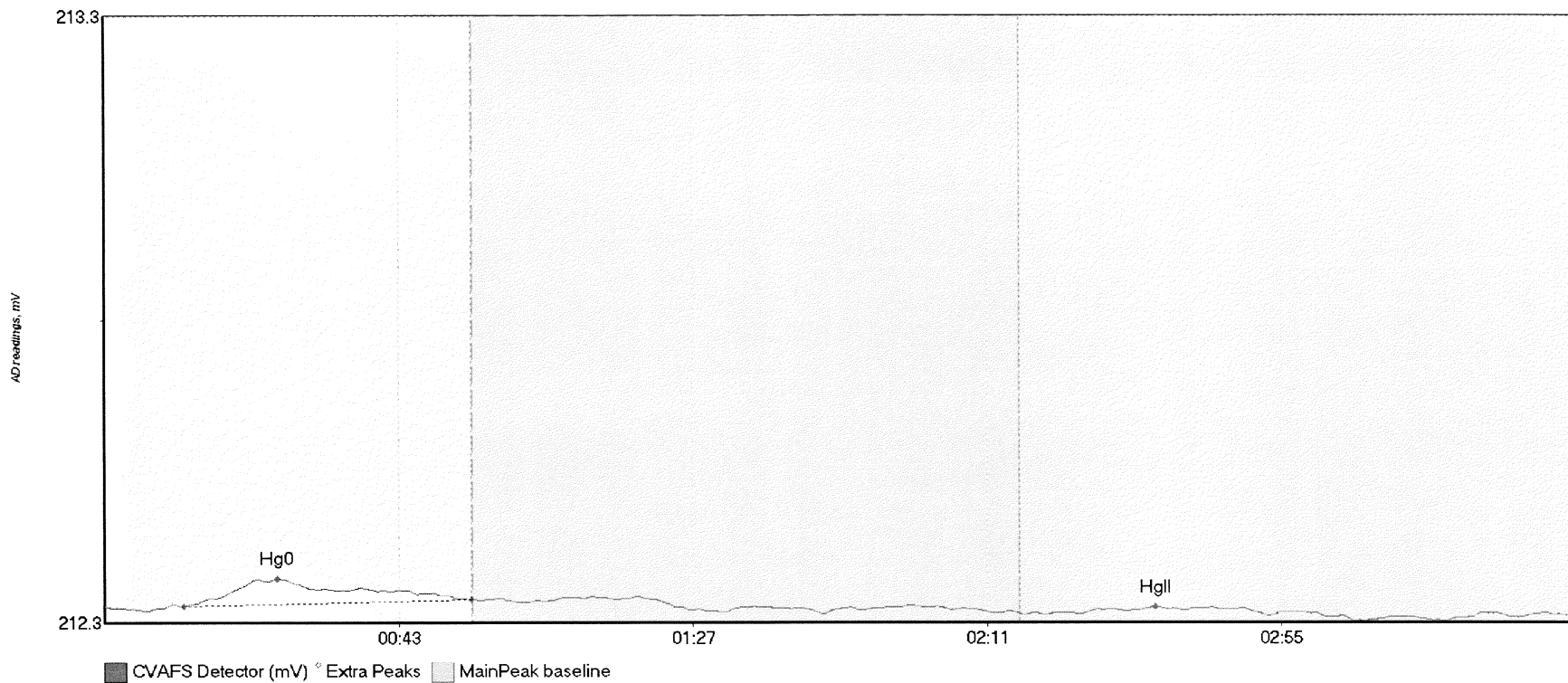
1708241-01	A11	500	26839-1.RAW	23:04:04	12.98	89.65	70.50	0.00	psample10	OK	1
1708241-02	A12	500	26840-1.RAW	23:14:35	11.60	151.15	185.53	0.00	psample10	OK	1
1708241-03	A13	500	26841-1.RAW	23:25:05	15.32	152.41	328.84	0.00	psample10	CT	1
1708241-04	A14	500	26842-1.RAW	23:35:36	14.47	213.70	329.90	0.00	psample10	CT	1
1708241-05	A15	500	26843-1.RAW	23:46:07	19.24	137.84	896.70	0.00	psample10	OK	1
1708241-11	A16	500	26844-1.RAW	23:56:37	12.21	114.70	151.98	0.00	psample10	CT	1
SEQ-CCV6	A17	1	26845-1.RAW	0:07:08	4.43	245.62	6.84	0.00	psample10	OK	1
SEQ-CCB6	A18	1	26846-1.RAW	0:17:39	5.15	0.00	7.46	0.00	psample10	OK	1
1708241-12	A19	500	26847-1.RAW	0:28:09	8.89	95.58	171.91	0.00	psample10	OK	1
1708241-13	A20	500	26848-1.RAW	0:38:40	9.74	104.99	84.46	0.00	psample10	CT	1
1708241-14	A21	500	26849-1.RAW	0:49:11	9.80	45.62	123.42	0.00	psample10	OK	1
1708241-15	B1	500	26850-1.RAW	0:59:41	14.74	102.01	203.71	0.00	psample10	CT	1
F710421-B52	B2	1000	26851-1.RAW	1:10:12	10.85	608.39	110.52	0.00	psample10	OK	1
F710421-B5D2	B3	1000	26852-1.RAW	1:20:43	5.39	591.65	95.98	0.00	psample10	OK	1
SEQ-CCV7	B4	1	26853-1.RAW	1:31:13	4.79	236.36	5.35	0.00	psample10	OK	1
SEQ-CCB7	B5	1	26854-1.RAW	1:41:44	5.04	0.00	8.99	0.00	psample10	OK	1

#1: Clean

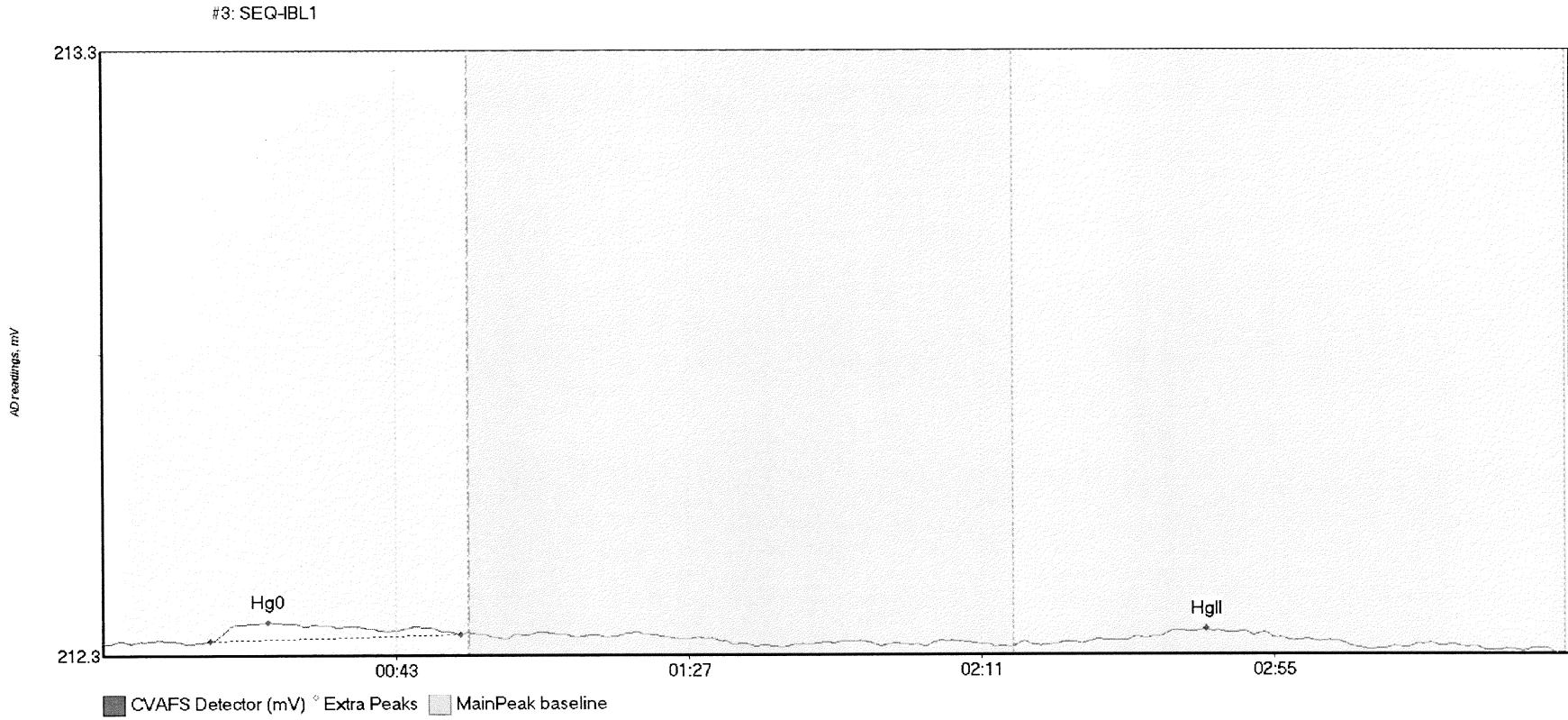


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean	5.814	153.9	214.7	212.46	212.53	211.3	0.074	OK	212.4944	0.00	-0.01	017

#2: WS

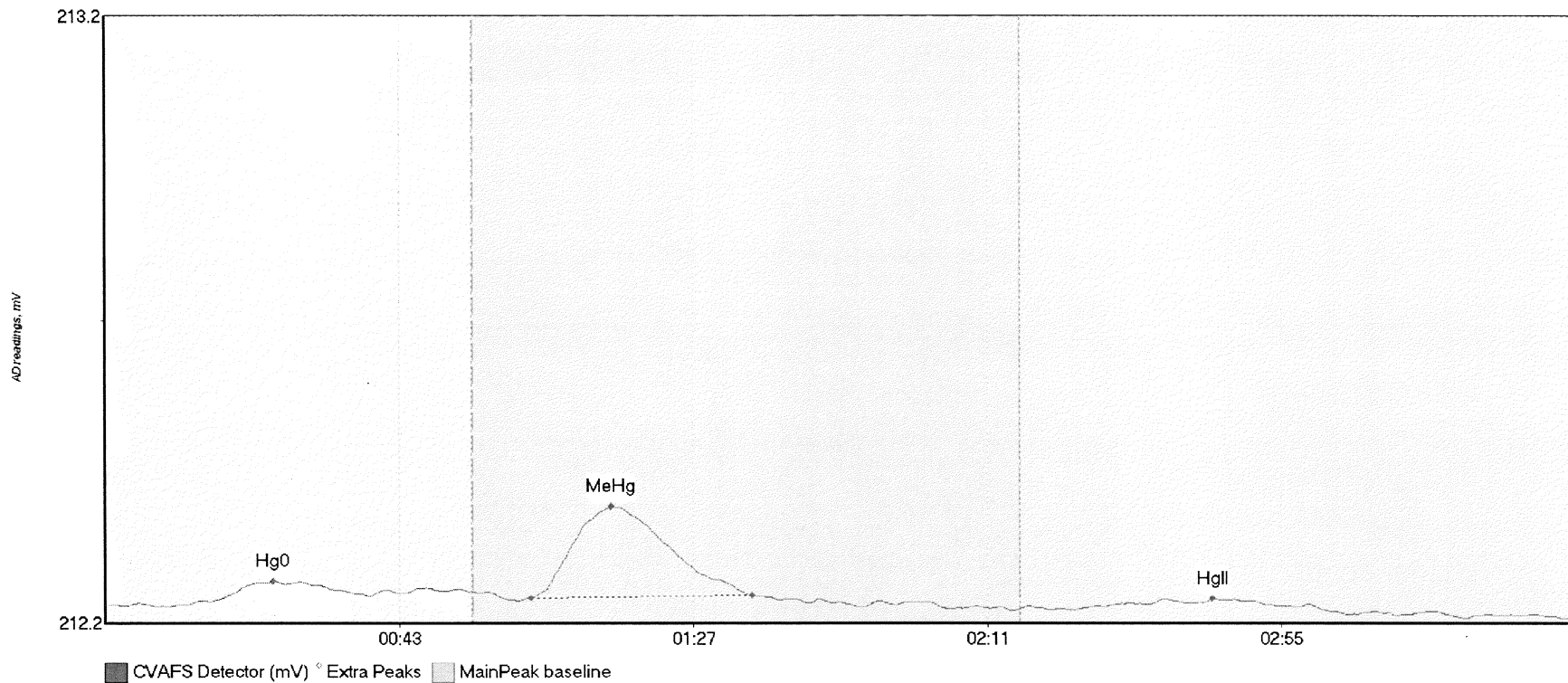


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	8.678	11.8	54.8	212.36	212.38	25.8	0.046	OK	212.3641	0.00	-0.01	017
WS HgII	1.631	146.0	172.2	212.35	212.36	157.2	0.013	OK	212.3641	0.00	-0.01	



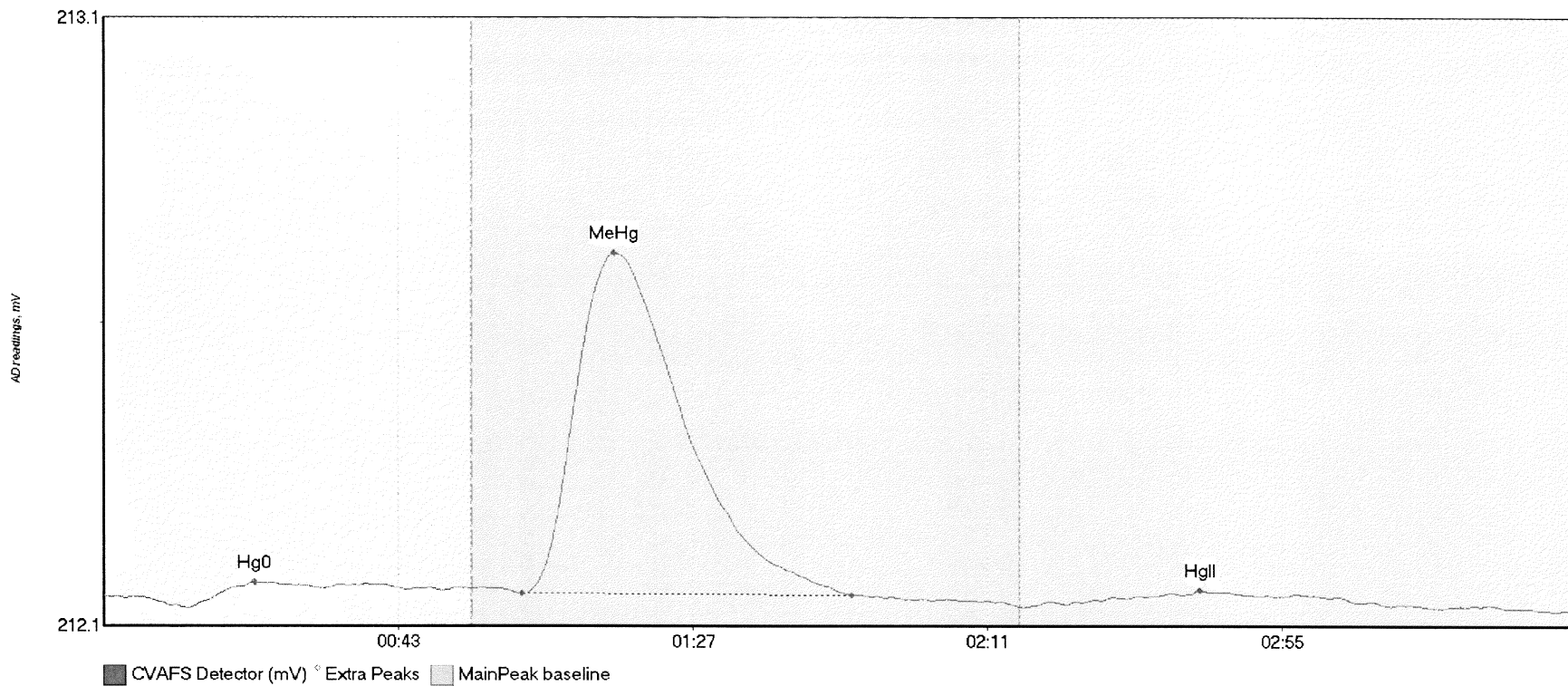
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	6.517	16.1	53.7	212.31	212.32	24.9	0.031	OK	212.3022	0.00	-0.02	
SEQ-IBL1 HgII	6.194	147.1	188.8	212.30	212.29	165.9	0.023	OK	212.3022	0.00	-0.02	317

#4: SEQ-CAL1



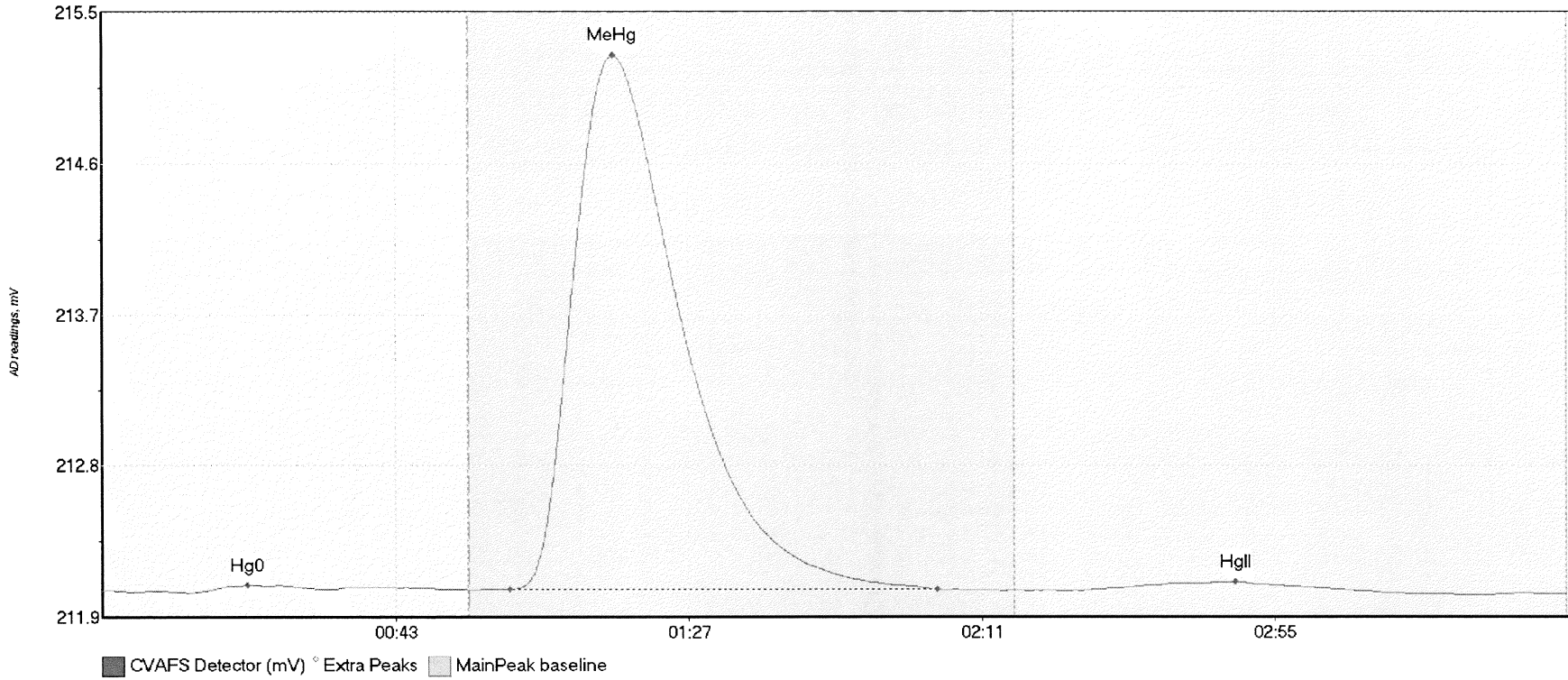
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	4.081	15.8	39.4	212.24	212.25	25.2	0.033	OK	212.2353	0.00	-0.02	
SEQ-CAL1 MeHg	24.270	63.7	96.8	212.25	212.25	75.7	0.150	OK	212.2353	0.00	-0.02	
SEQ-CAL1 HgII	1.772	149.5	175.2	212.23	212.23	165.8	0.013	OK	212.2353	0.00	-0.02	

#5: SEQ-CAL2



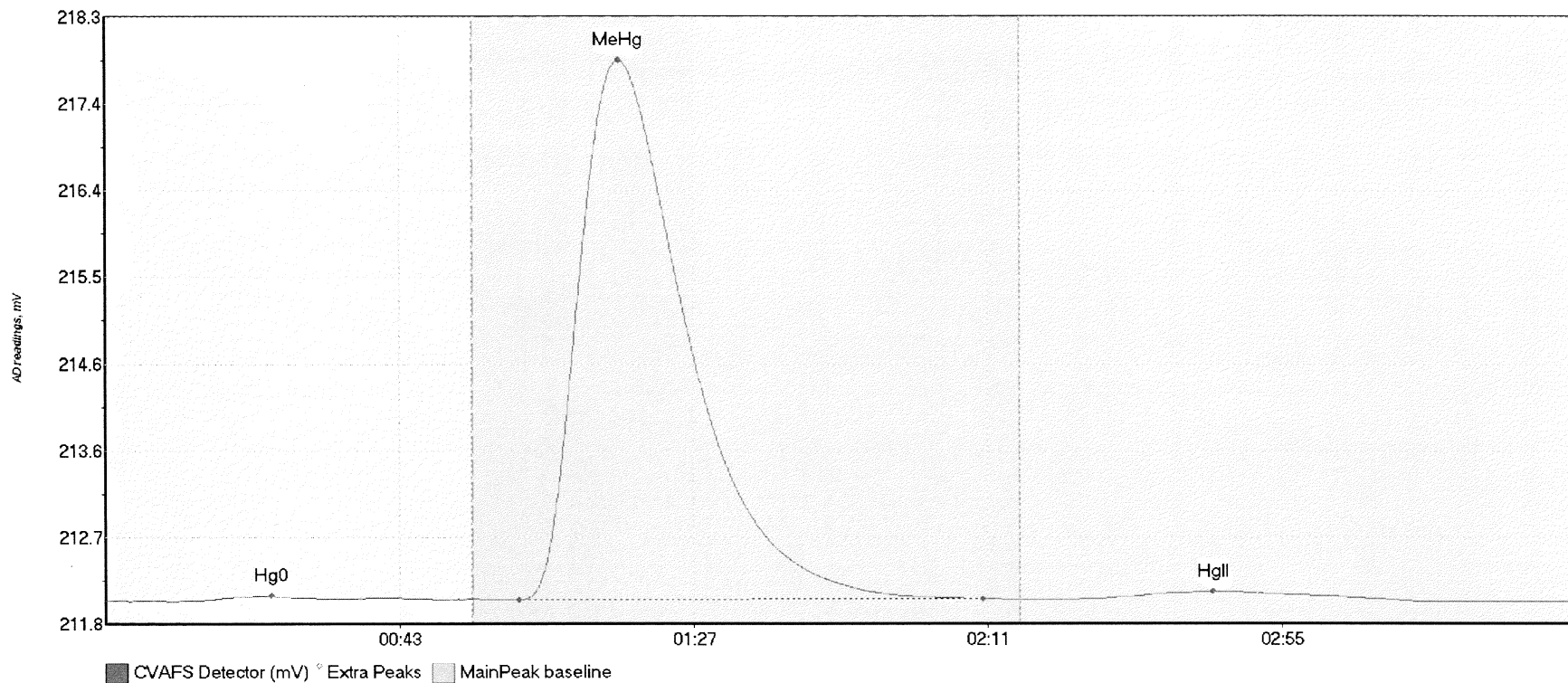
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	6.612	13.2	50.6	212.16	212.18	22.6	0.041	OK	212.1739	0.00	-0.02	
SEQ-CAL2 MeHg	104.651	62.5	111.8	212.18	212.18	76.3	0.562	OK	212.1739	0.00	-0.02	
SEQ-CAL2 HgII	6.720	143.7	192.3	212.16	212.16	163.7	0.024	OK	212.1739	0.00	-0.02	

#6: SEQ-CAL3



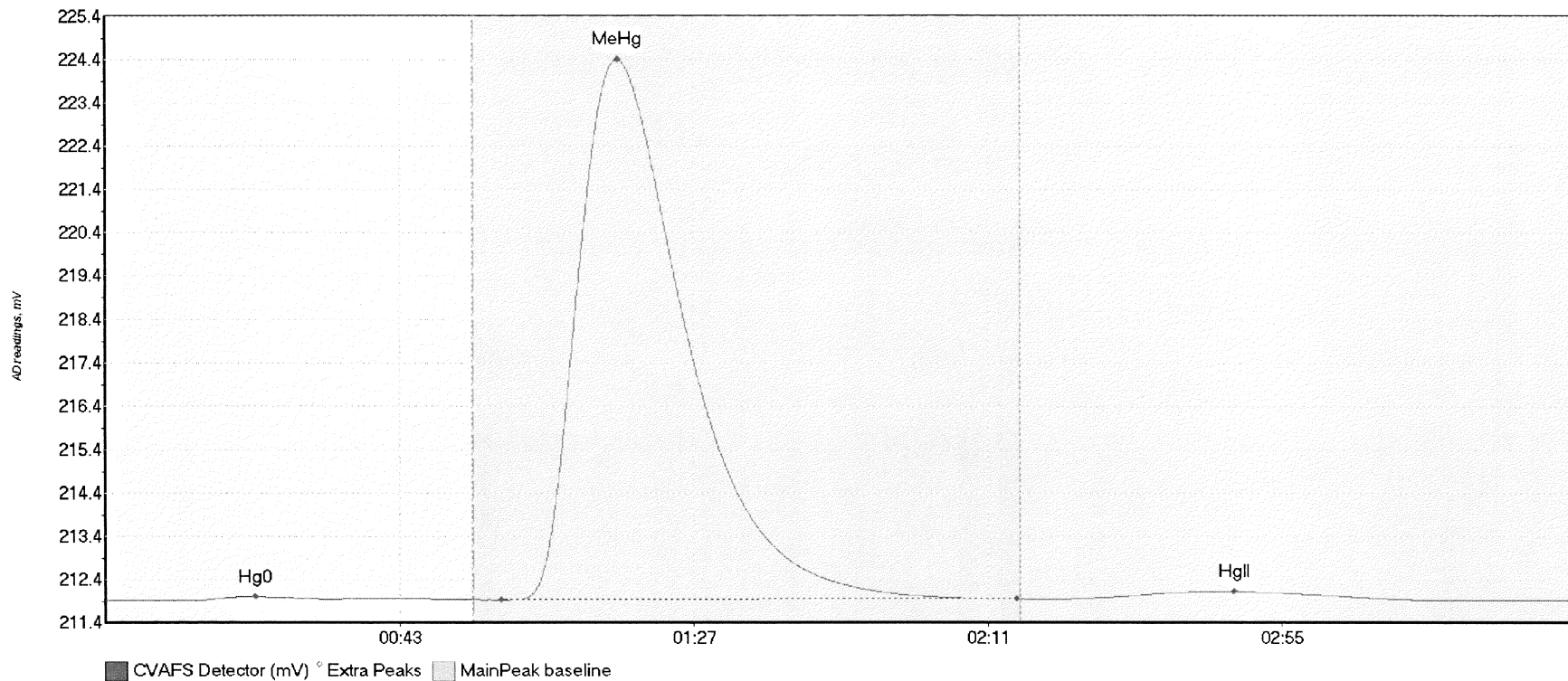
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	8.271	13.2	54.9	212.08	212.10	21.8	0.043	OK	212.0927	0.00	-0.02	
SEQ-CAL3 MeHg	591.990	61.2	125.3	212.10	212.10	76.8	3.145	OK	212.0927	0.00	-0.02	
SEQ-CAL3 HgII	10.624	149.7	189.0	212.10	212.09	170.2	0.043	OK	212.0927	0.00	-0.02	

#7: SEQ-CAL4



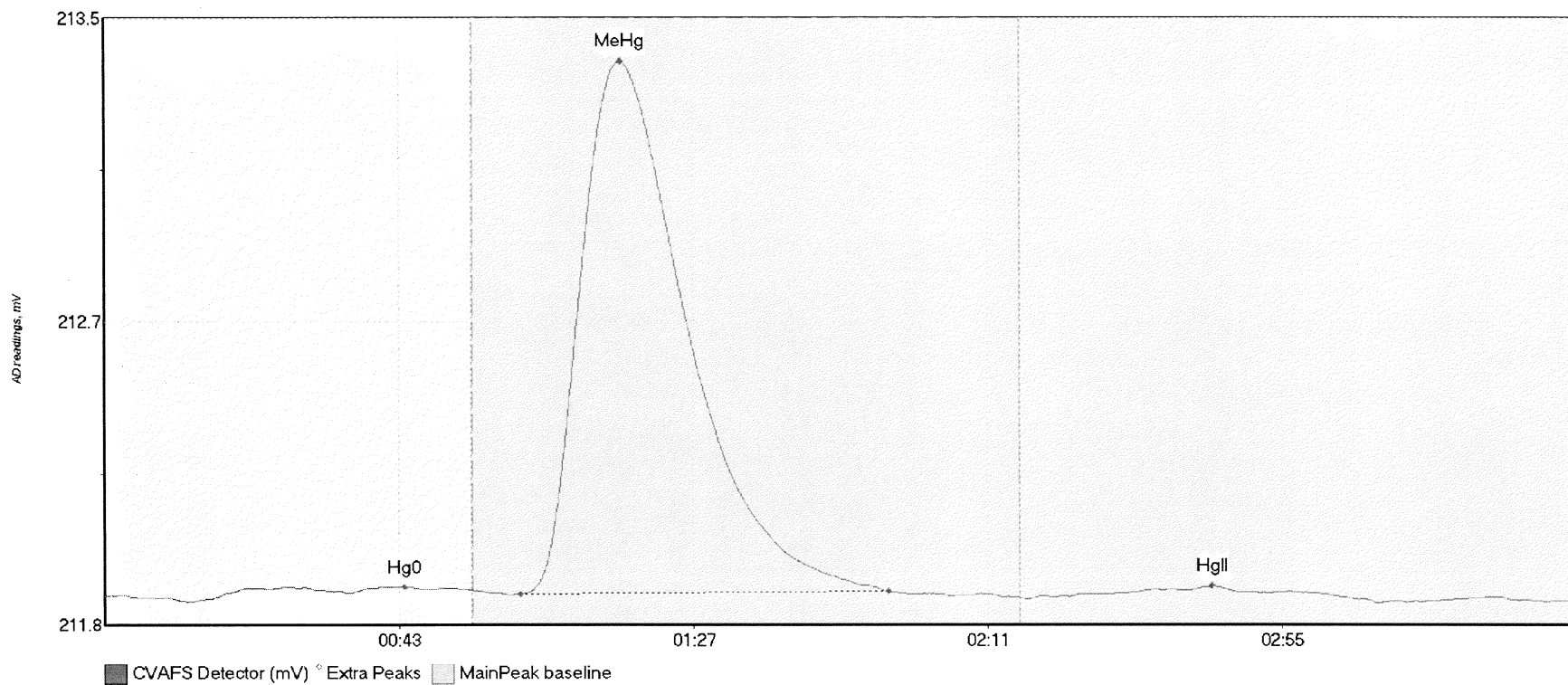
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	8.700	12.6	51.7	212.01	212.02	24.8	0.053	OK	212.0085	0.00	-0.01	
SEQ-CAL4 MeHg	1087.550	61.8	131.3	212.02	212.03	76.9	5.811	OK	212.0085	0.00	-0.01	
SEQ-CAL4 HgII	24.430	144.6	194.4	212.02	212.01	165.8	0.085	OK	212.0085	0.00	-0.01	

#8: SEQ-CAL5



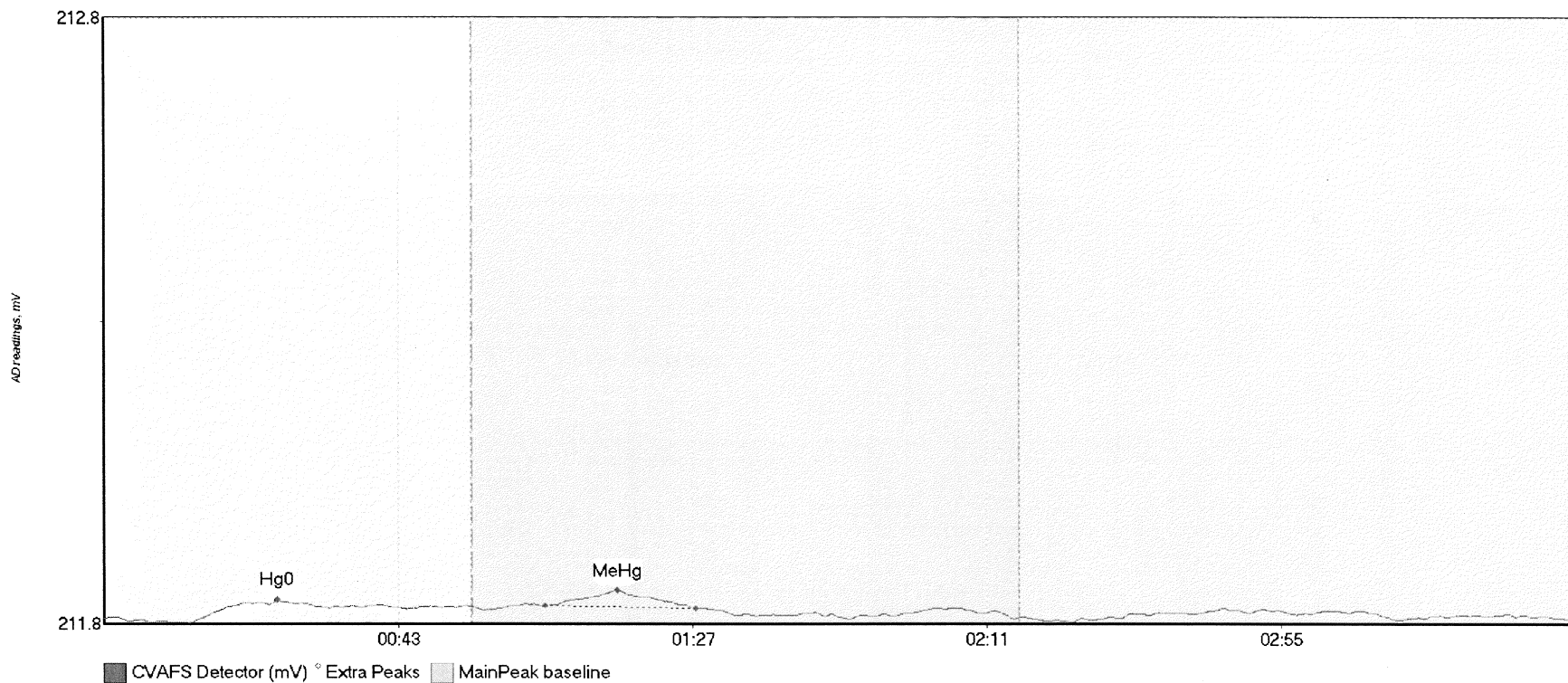
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	15.029	12.3	55.0	211.93	211.95	22.5	0.088	CT	211.9282	0.00	0.00	
SEQ-CAL5 MeHg	2333.648	59.1	136.3	211.94	211.97	76.7	12.428	OK	211.9282	0.00	0.00	
SEQ-CAL5 HgII	51.042	145.0	195.3	211.97	211.95	168.9	0.172	OK	211.9282	0.00	0.00	

#9: SEQ-ICV1



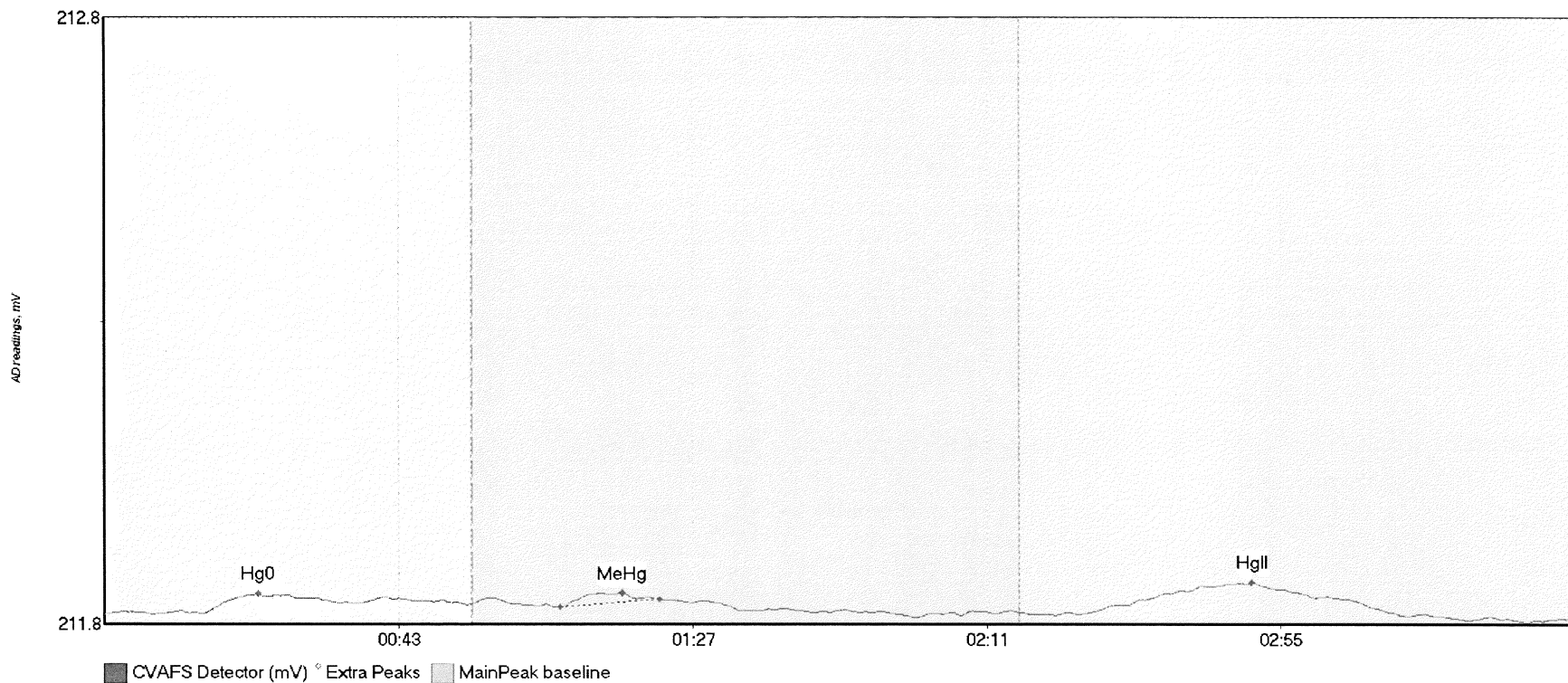
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	5.964	15.2	55.0	211.86	211.88	44.8	0.035	CT	211.8681	0.00	-0.01	
SEQ-ICV1 MeHg	280.112	62.1	117.2	211.87	211.88	77.1	1.522	OK	211.8681	0.00	-0.01	
SEQ-ICV1 HgII	5.669	144.3	184.9	211.87	211.87	165.6	0.028	OK	211.8681	0.00	-0.01	

#10: SEQ-ICB1



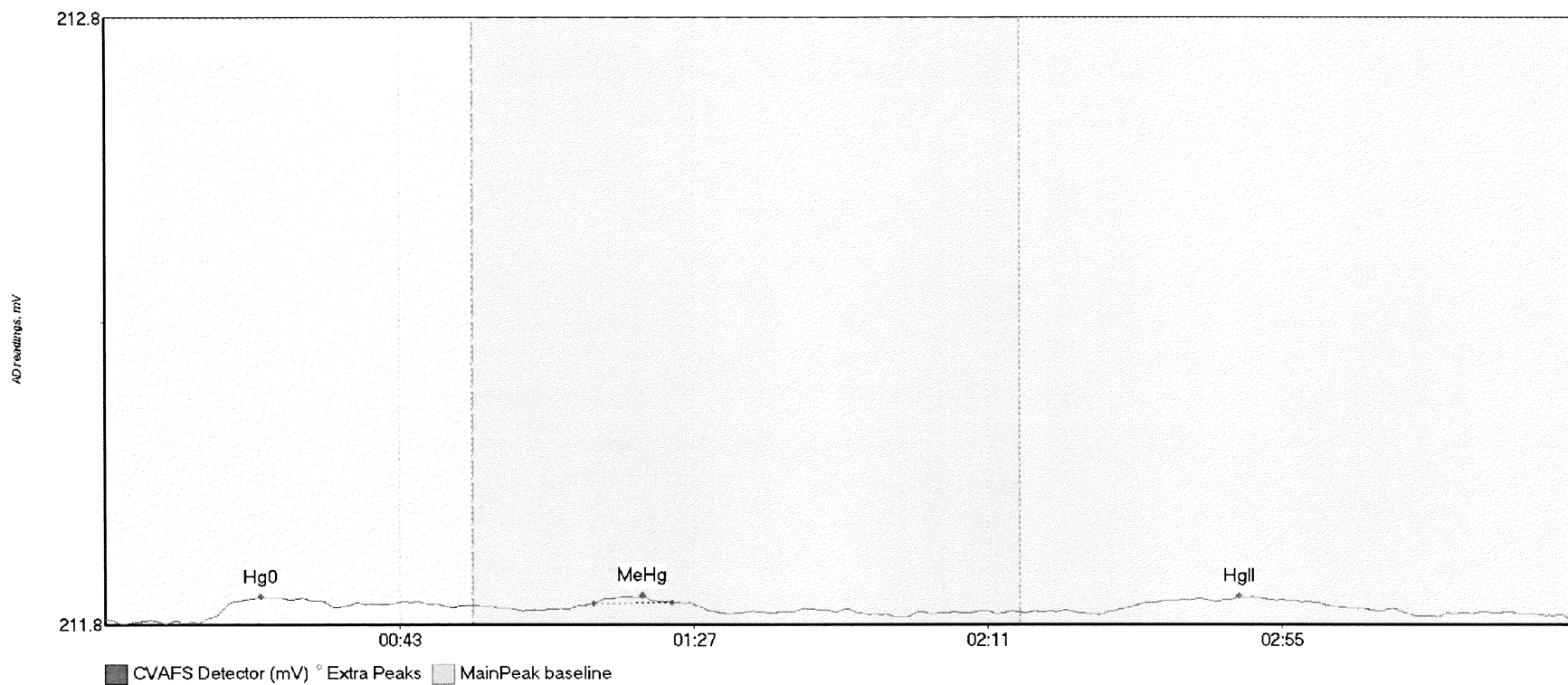
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	4.809	12.7	45.3	211.82	211.84	25.8	0.036	OK	211.8252	0.00	0.00	
SEQ-ICB1 MeHg	3.130	65.9	88.5	211.84	211.84	76.8	0.026	OK	211.8252	0.00	0.00	017

#11: F710411-BLK1



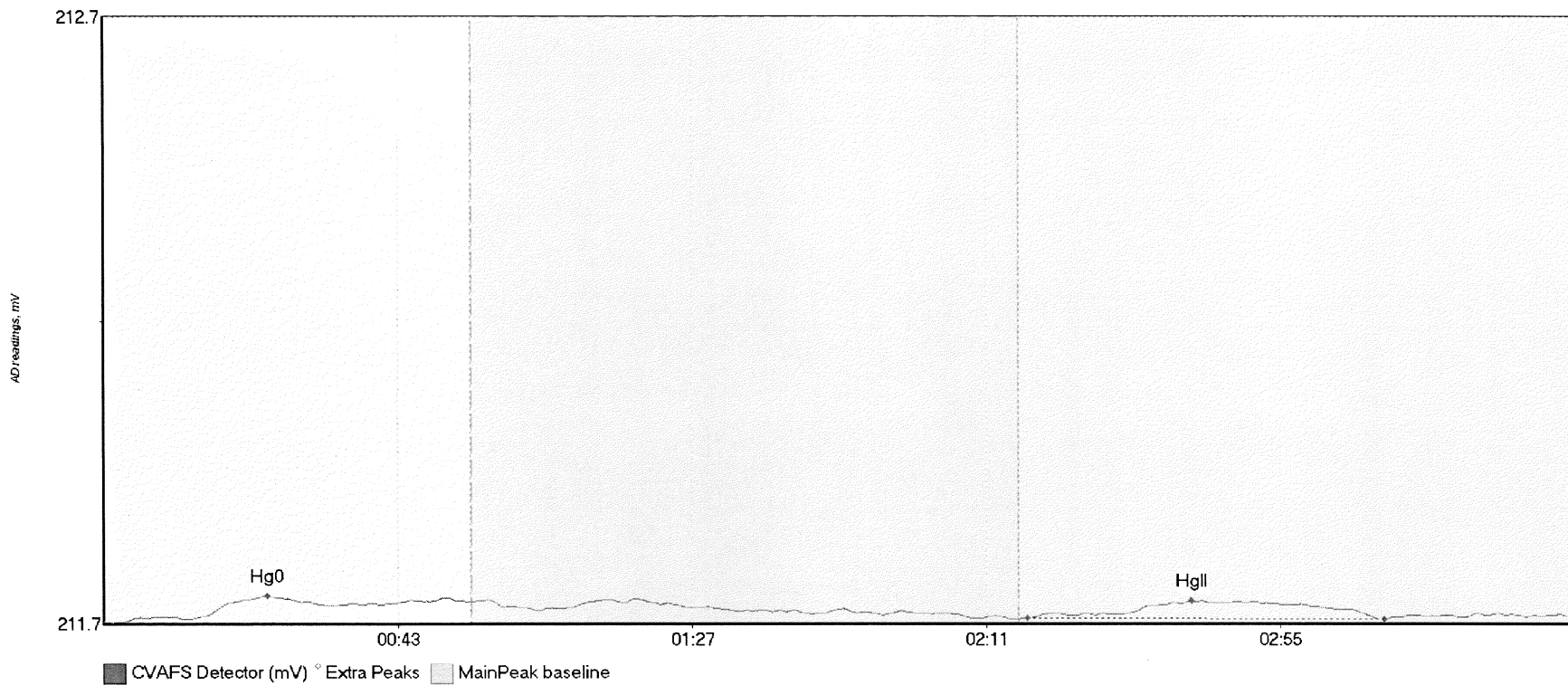
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-BLK1 Hg	5.881	14.7	54.2	211.79	211.81	23.0	0.031	OK	211.7899	0.00	-0.01	
F710411-BLK1 Me	1.525	68.1	83.0	211.80	211.81	77.4	0.023	OK	211.7899	0.00	-0.01	
F710411-BLK1 Hg	12.572	147.5	192.4	211.79	211.79	171.8	0.049	OK	211.7899	0.00	-0.01	

#12: F710411-BLK2



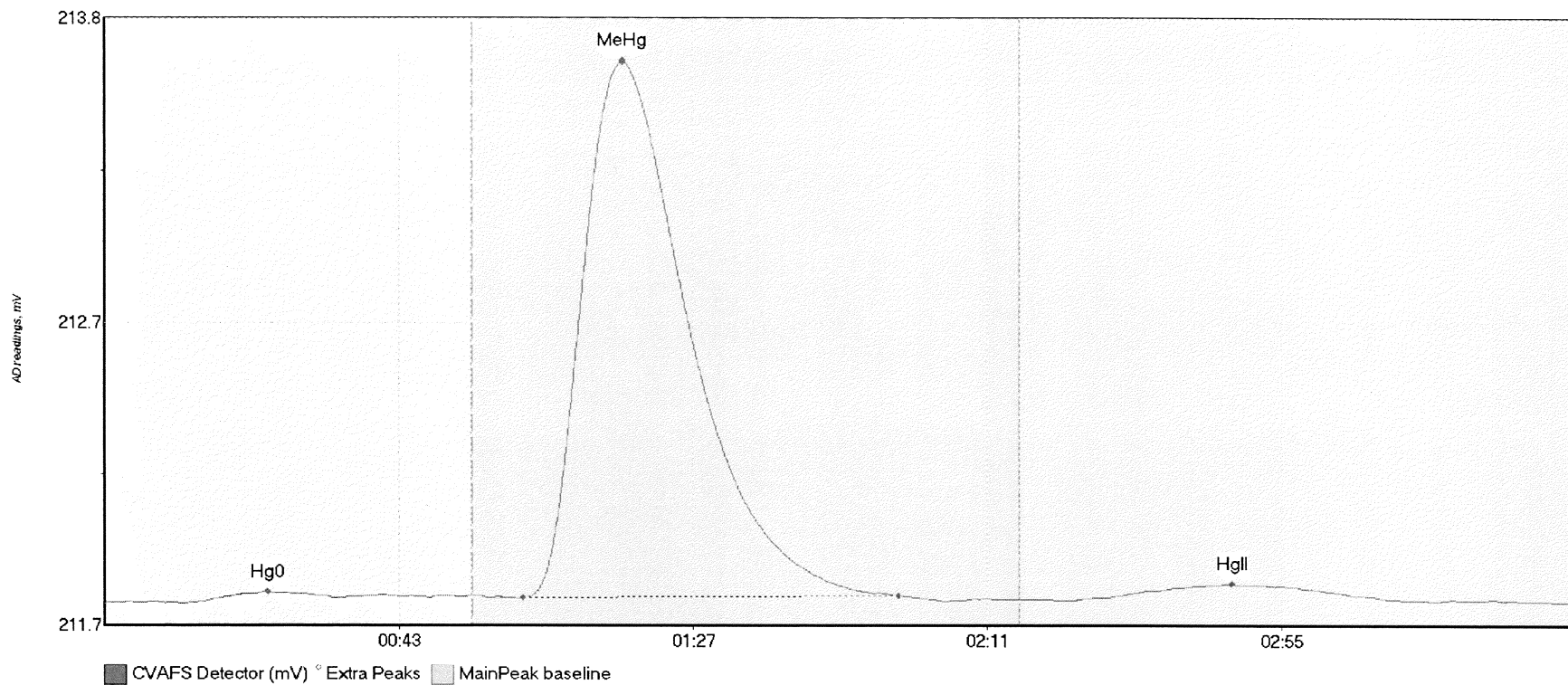
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-BLK2 Hg	4.031	14.0	34.3	211.75	211.78	23.3	0.043	OK	211.7602	0.00	0.00	
F710411-BLK2 Me	0.780	73.0	84.8	211.79	211.79	80.3	0.012	OK	211.7602	0.00	0.00	
F710411-BLK2 Hg	5.583	151.0	190.6	211.77	211.77	169.6	0.023	OK	211.7602	0.00	0.00	

#13: F710411-BLK3



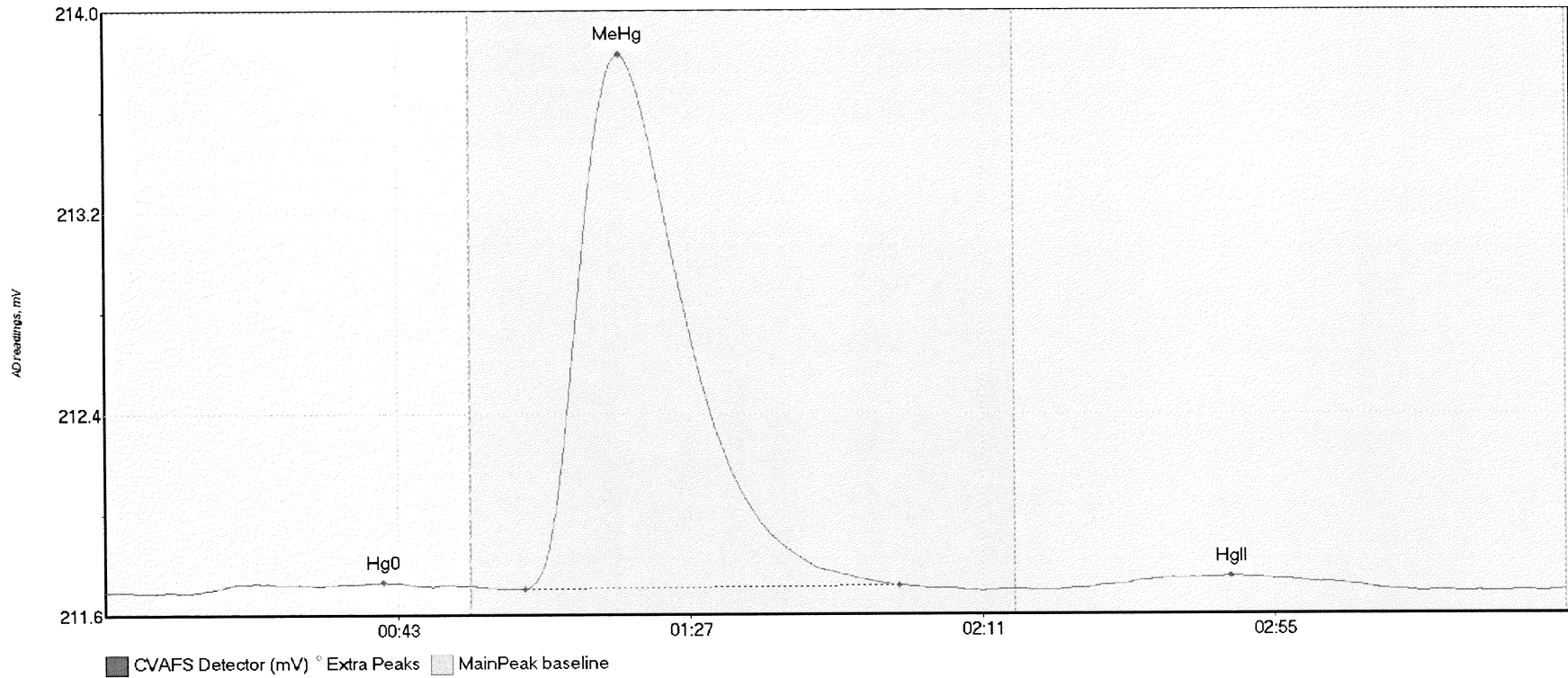
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-BLK3 Hg	3.026	13.0	34.2	211.75	211.77	24.4	0.038	OK	211.7433	0.00	0.01	017
F710411-BLK3 Hg	9.328	138.2	191.6	211.75	211.75	162.8	0.029	OK	211.7433	0.00	0.01	

#14: F710411-BS1



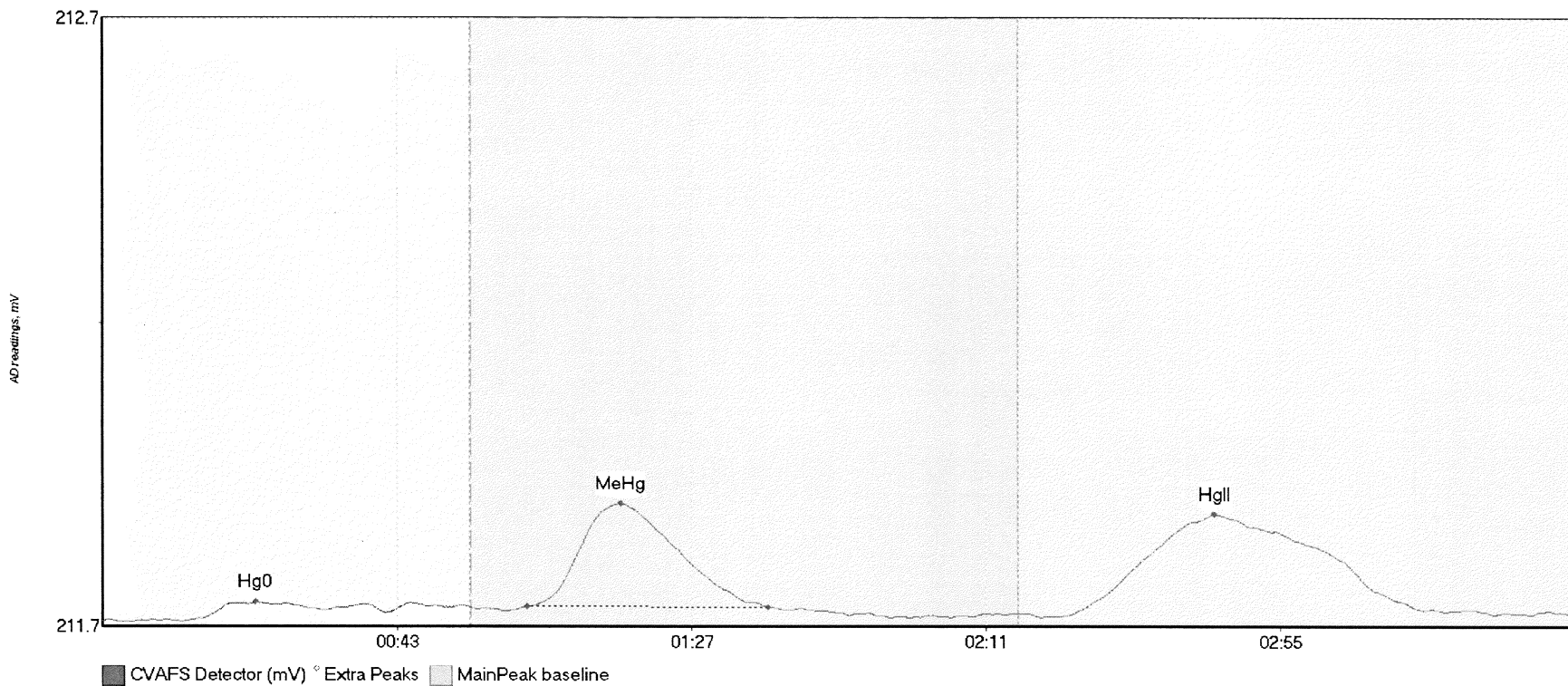
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-BS1 Hg0	3.424	14.6	34.6	211.74	211.76	24.4	0.035	OK	211.7377	0.00	0.00	
F710411-BS1 MeH	355.872	62.6	118.8	211.75	211.76	77.5	1.932	OK	211.7377	0.00	0.00	
F710411-BS1 HgI	12.735	147.9	191.2	211.76	211.75	168.6	0.049	OK	211.7377	0.00	0.00	

#15: F710411-BSD1



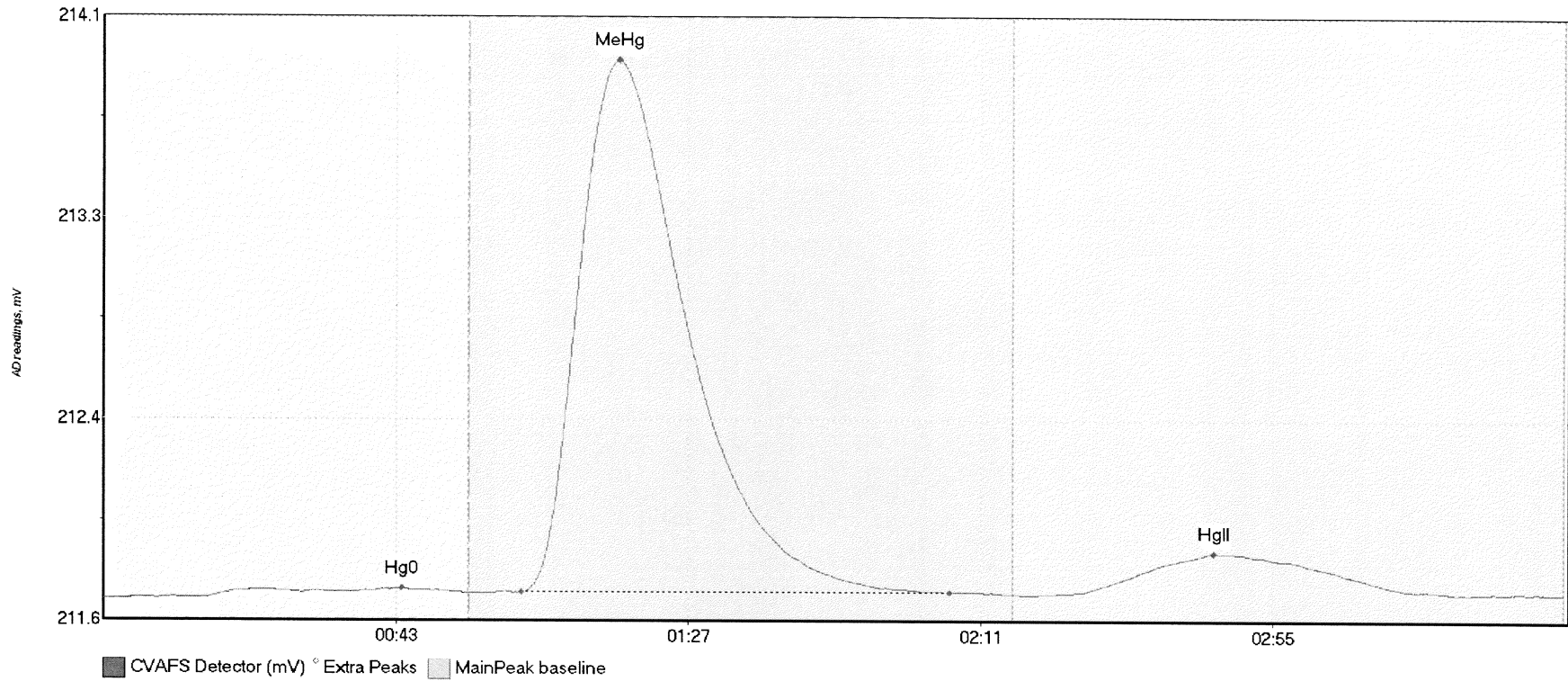
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-BSD1 Hg	6.263	12.8	49.1	211.72	211.75	41.9	0.040	OK	211.7265	0.00	0.00	
F710411-BSD1 Me	391.933	63.1	119.4	211.74	211.75	77.6	2.128	OK	211.7265	0.00	0.00	
F710411-BSD1 Hg	13.814	147.5	193.4	211.74	211.73	169.4	0.046	OK	211.7265	0.00	0.00	

#16: F710411-DUP1



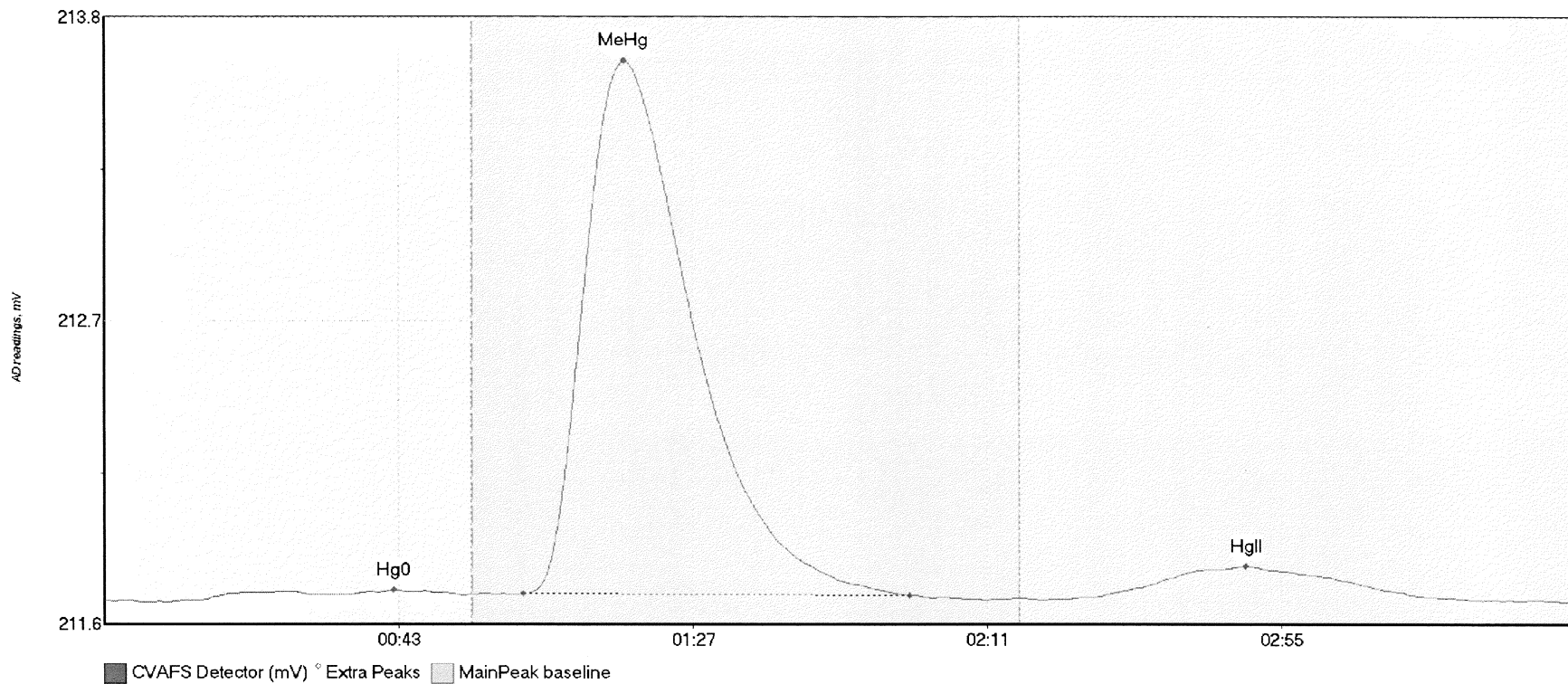
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-DUP1 Hg	3.987	14.8	42.3	211.71	211.72	22.9	0.026	OK	211.7084	0.00	0.01	
F710411-DUP1 Me	27.778	63.5	99.5	211.73	211.73	77.5	0.170	OK	211.7084	0.00	0.01	
F710411-DUP1 Hg	47.610	144.2	200.5	211.72	211.72	166.2	0.167	OK	211.7084	0.00	0.01	

#17: F710411-MS1



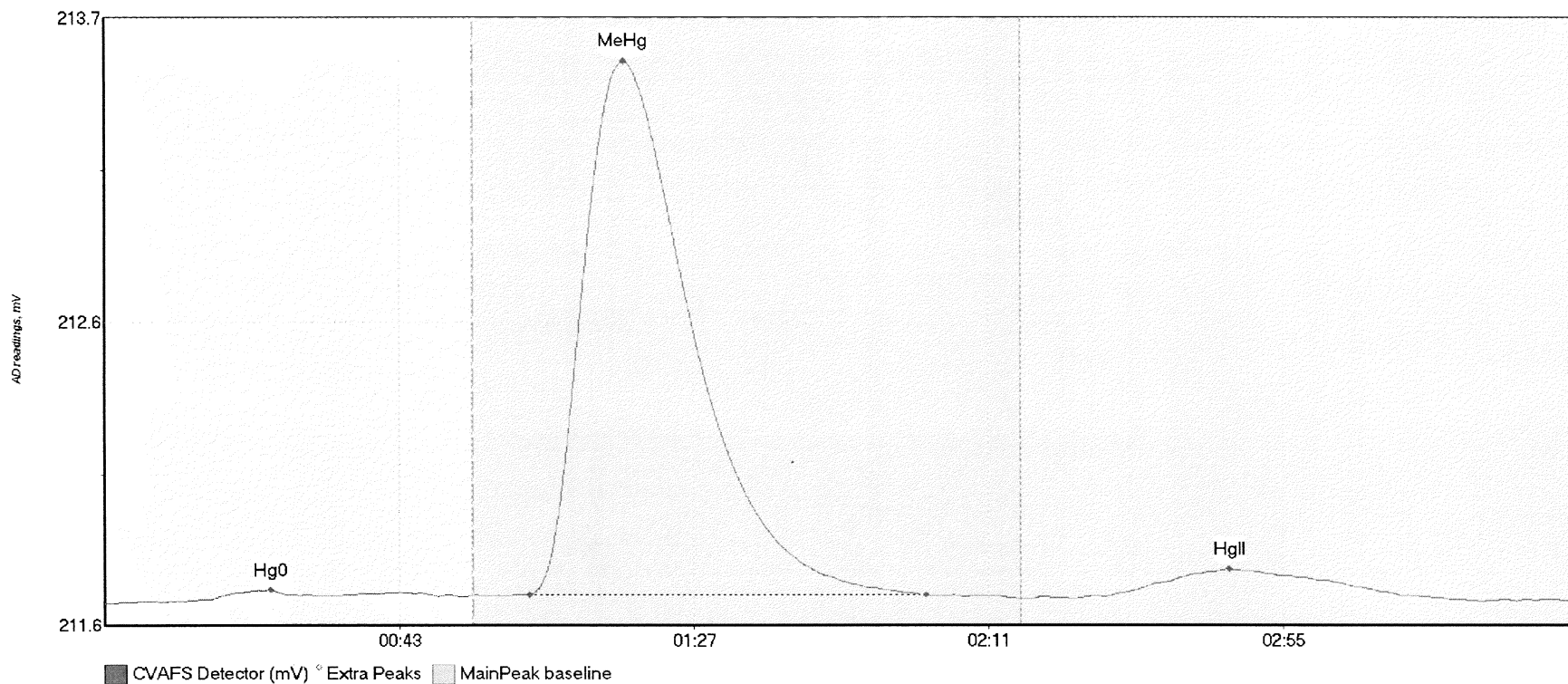
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-MS1 Hg0	6.856	14.4	54.8	211.71	211.73	44.8	0.036	OK	211.7076	0.00	0.02	
F710411-MS1 MeH	408.252	62.9	127.3	211.74	211.74	77.6	2.165	OK	211.7076	0.00	0.02	
F710411-MS1 HgI	48.787	145.1	203.7	211.73	211.73	167.2	0.165	OK	211.7076	0.00	0.02	

#18: F710411-MSD1



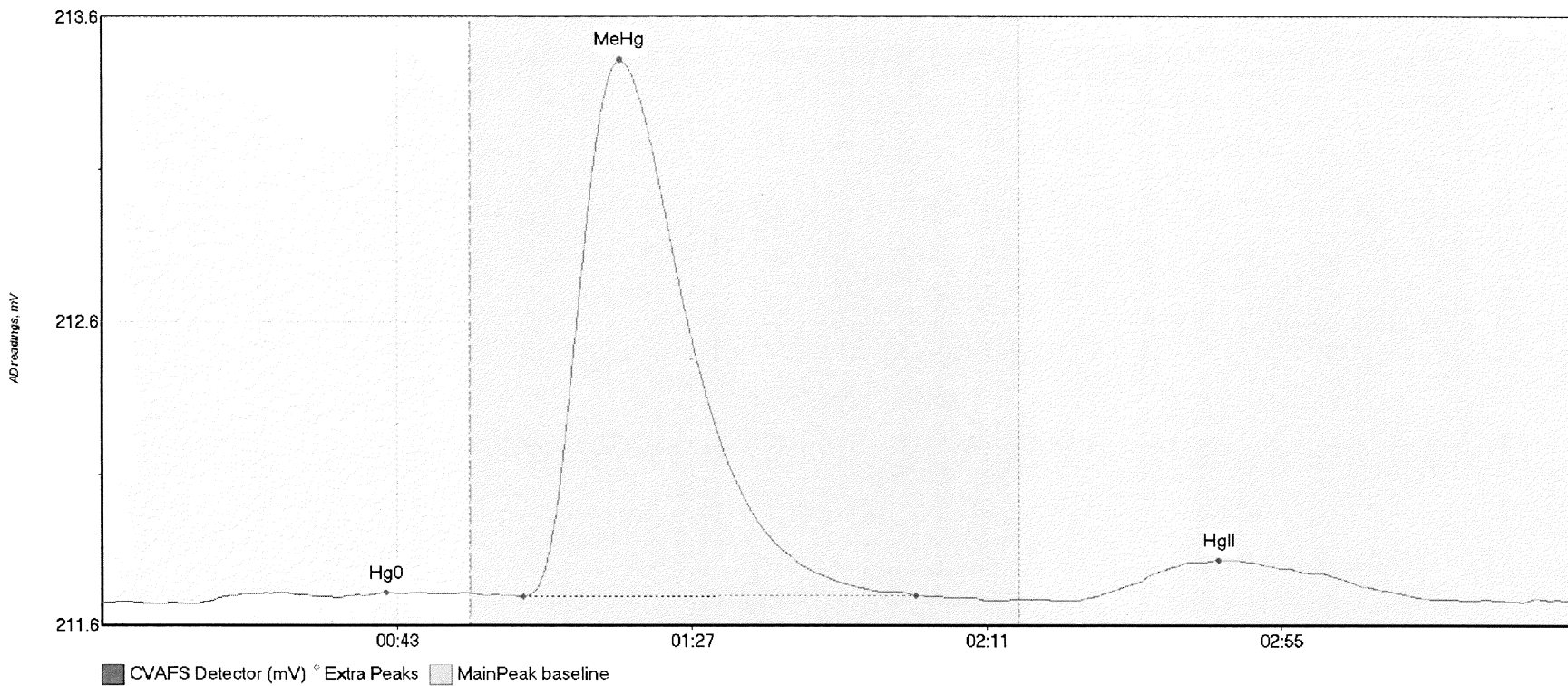
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-MSD1 Hg	6.339	14.4	53.8	211.71	211.73	43.3	0.035	OK	211.7133	0.00	-0.01	
F710411-MSD1 Me	358.458	62.6	120.5	211.74	211.73	77.8	1.905	OK	211.7133	0.00	-0.01	
F710411-MSD1 Hg	30.181	147.5	197.9	211.72	211.73	170.7	0.110	OK	211.7133	0.00	-0.01	

#19: F710411-MS2



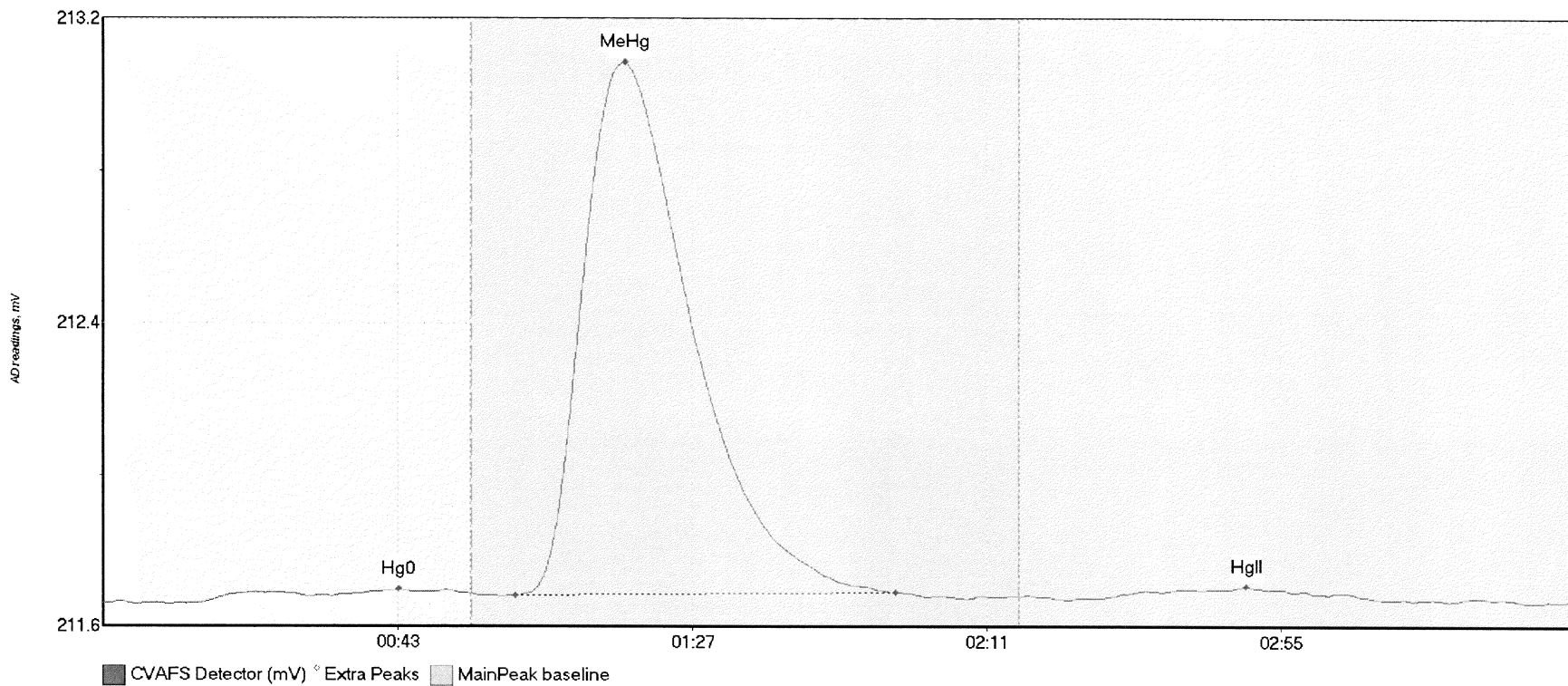
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-MS2 Hg0	6.750	8.8	53.4	211.70	211.72	24.8	0.042	OK	211.6993	0.00	0.01	
F710411-MS2 MeH	336.742	63.4	122.7	211.73	211.73	77.6	1.786	OK	211.6993	0.00	0.01	
F710411-MS2 HgI	25.575	145.4	198.8	211.72	211.72	168.0	0.097	OK	211.6993	0.00	0.01	

#20: F710411-MSD2



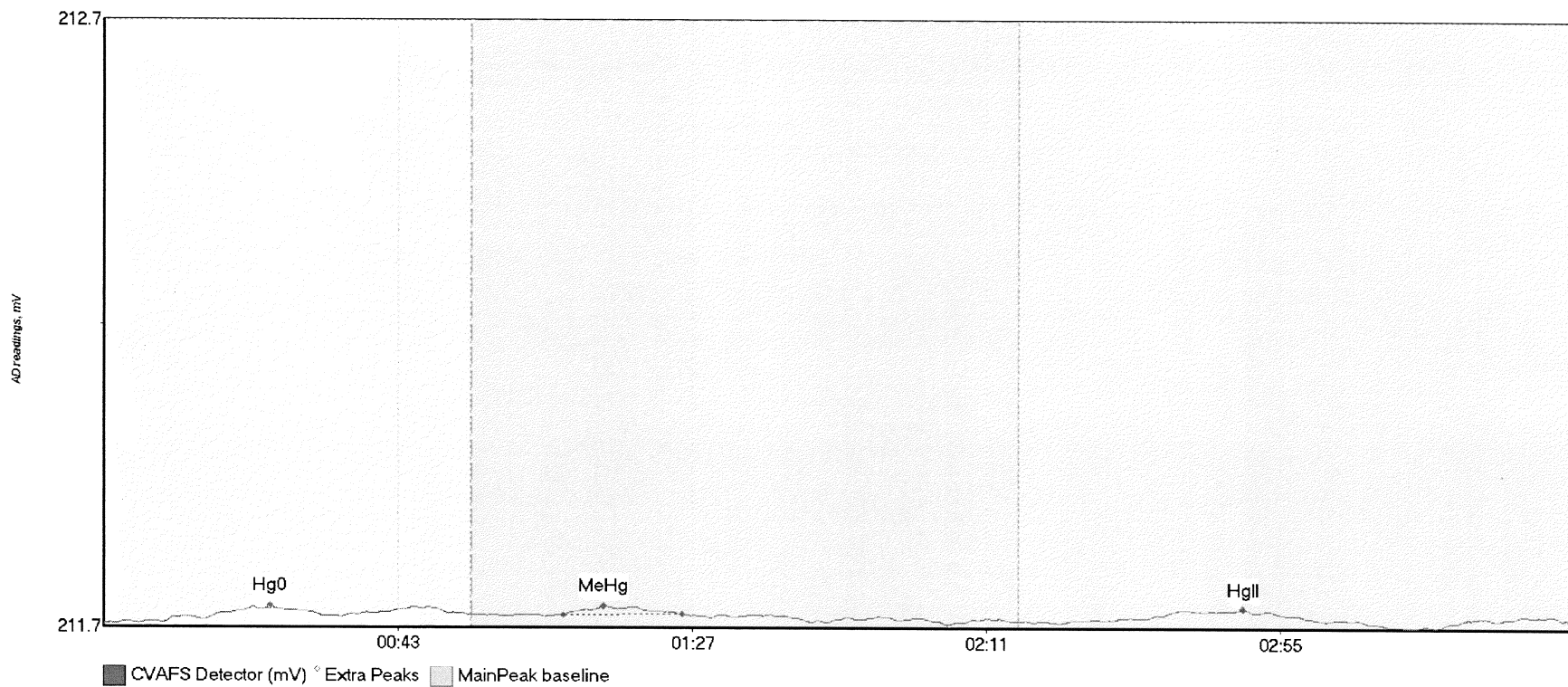
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-MSD2 Hg	4.842	13.9	52.4	211.69	211.73	42.5	0.037	OK	211.6986	0.00	0.01	
F710411-MSD2 Me	326.118	62.8	121.5	211.72	211.72	77.3	1.743	OK	211.6986	0.00	0.01	
F710411-MSD2 Hg	37.134	145.4	197.0	211.70	211.71	166.7	0.133	OK	211.6986	0.00	0.01	

#21: SEQ-CCV1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	5.156	14.0	55.0	211.69	211.72	44.1	0.035	CT	211.6934	0.00	0.00	
SEQ-CCV1 MeHg	254.906	61.6	118.4	211.71	211.72	78.0	1.359	OK	211.6934	0.00	0.00	
SEQ-CCV1 HgII	4.398	149.2	181.2	211.71	211.71	170.9	0.030	OK	211.6934	0.00	0.00	

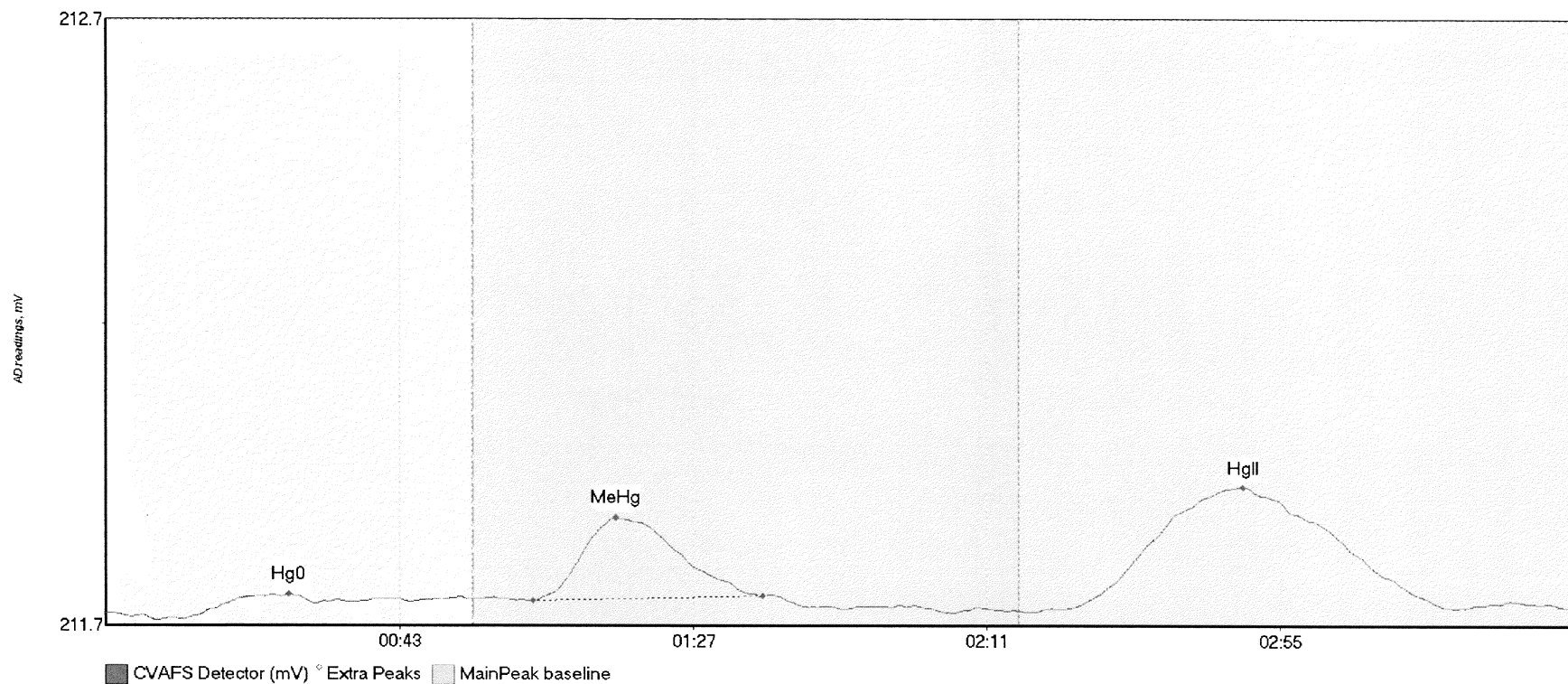
#22: SEQ-CCB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	2.615	8.7	35.6	211.69	211.70	24.9	0.025	OK	211.6851	0.00	0.01	
SEQ-CCB1 MeHg	1.381	68.7	86.4	211.70	211.70	74.8	0.014	OK	211.6851	0.00	0.01	
SEQ-CCB1 HgII	2.384	156.2	180.1	211.69	211.69	170.5	0.016	OK	211.6851	0.00	0.01	

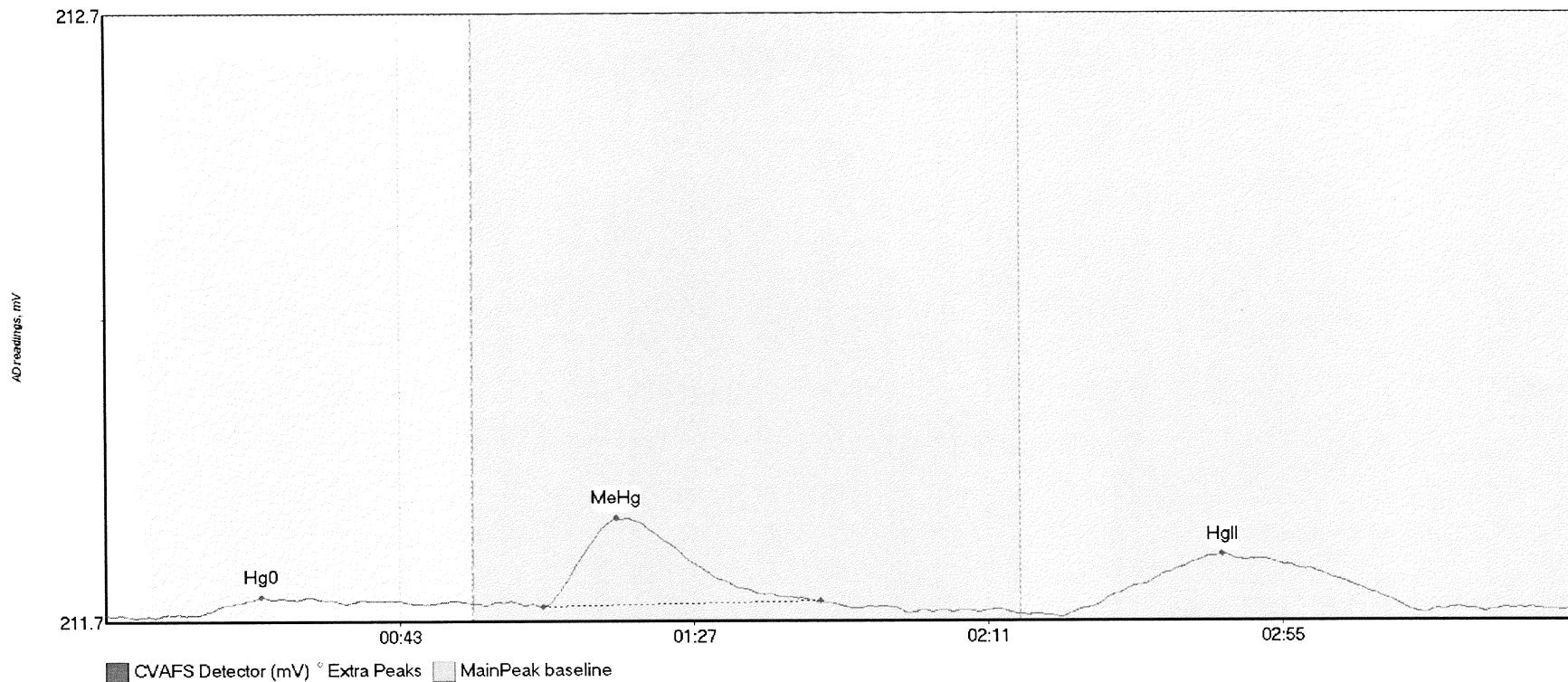
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#23: 1710143-01



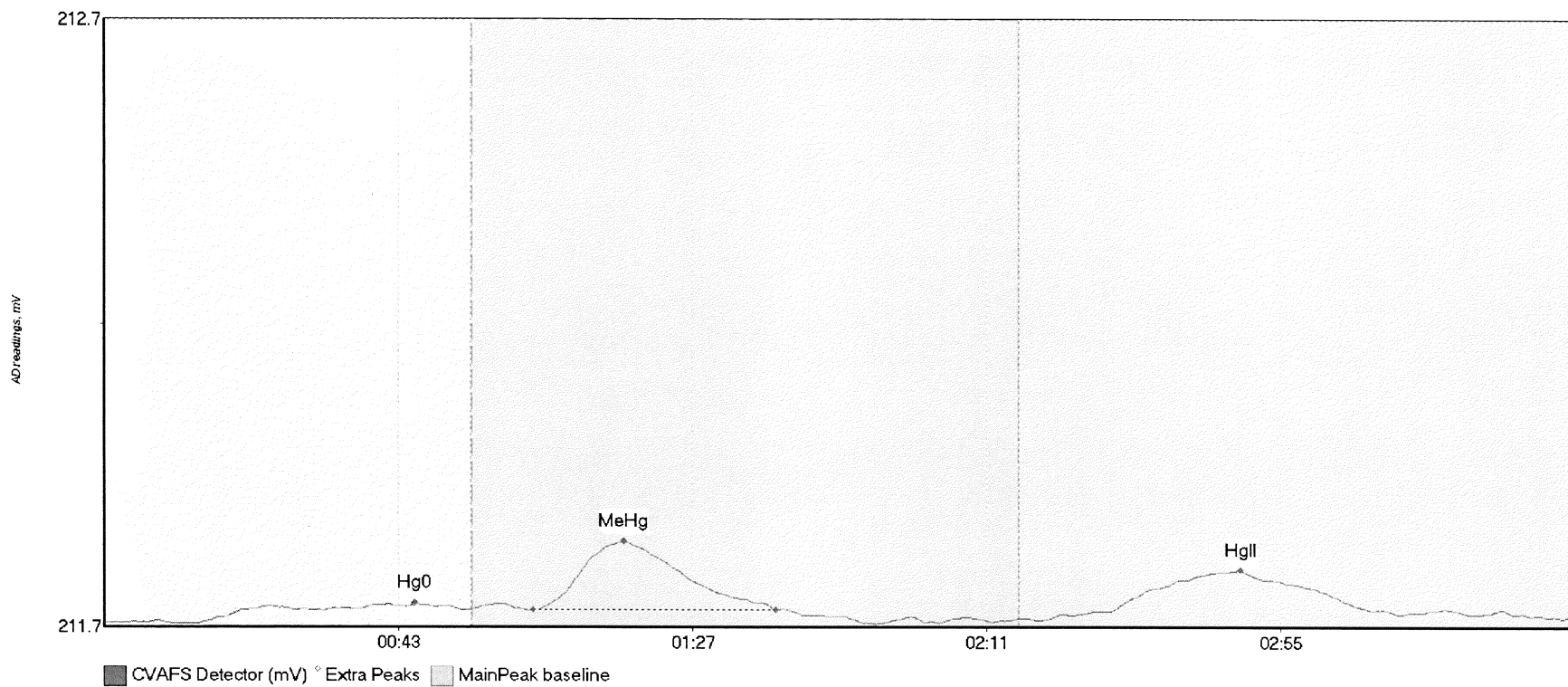
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710143-01 Hg0	2.708	14.0	31.5	211.69	211.70	27.4	0.034	OK	211.6890	0.00	0.01	
1710143-01 MeHg	22.119	64.0	98.4	211.71	211.72	76.4	0.137	OK	211.6890	0.00	0.01	
1710143-01 HgII	60.279	143.5	202.4	211.70	211.70	170.5	0.202	OK	211.6890	0.00	0.01	

#24: 1710143-02



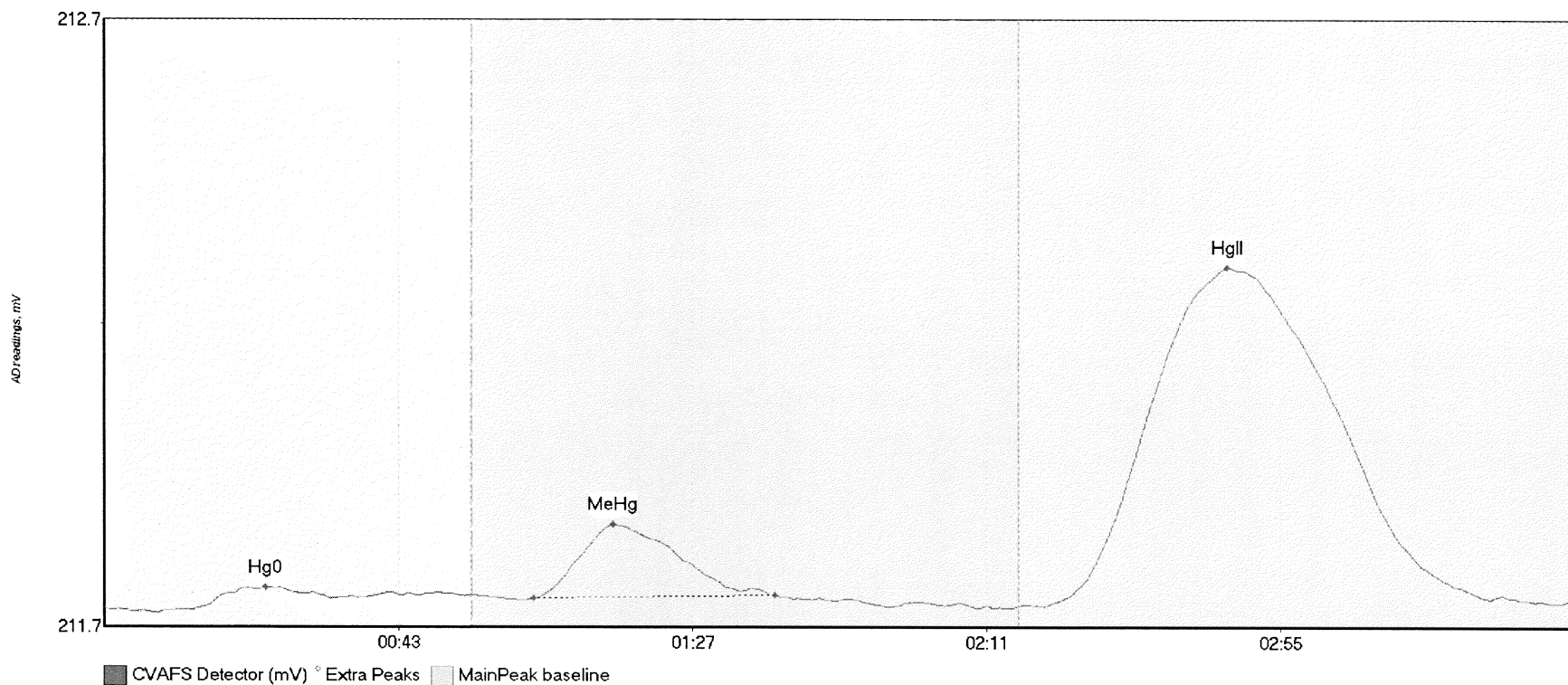
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710143-02 Hg0	3.705	15.3	47.9	211.70	211.71	23.3	0.024	OK	211.6909	0.00	0.01	
1710143-02 MeHg	25.695	65.4	106.9	211.70	211.71	76.5	0.146	OK	211.6909	0.00	0.01	
1710143-02 HgII	30.263	143.1	197.0	211.69	211.69	167.1	0.103	OK	211.6909	0.00	0.01	

#25: 1710143-03



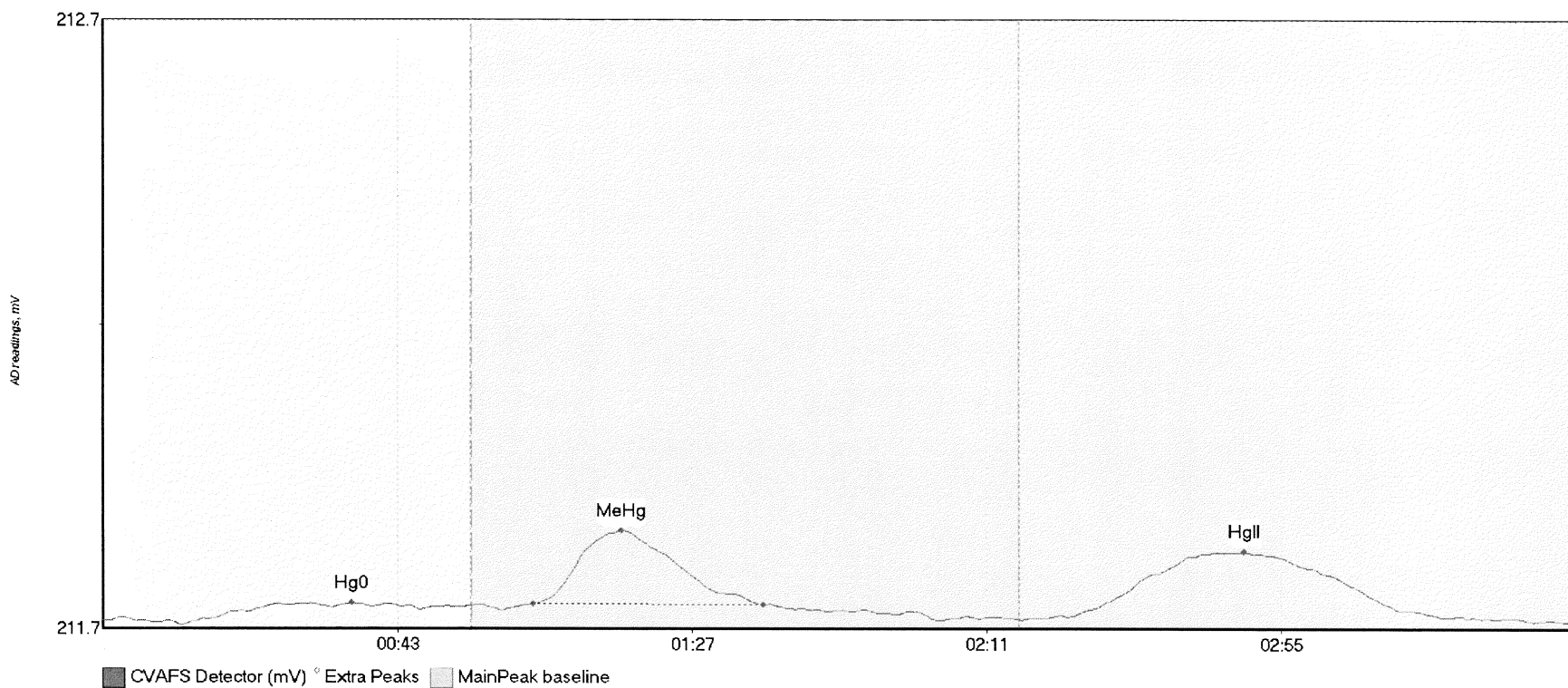
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710143-03 Hg0	4.737	14.9	54.3	211.70	211.72	46.4	0.029	OK	211.6972	0.00	0.01	
1710143-03 MeHg	19.274	64.1	100.5	211.72	211.72	77.7	0.114	OK	211.6972	0.00	0.01	
1710143-03 HgII	20.329	144.9	213.5	211.71	211.71	170.1	0.075	OK	211.6972	0.00	0.01	

#26: 1710143-04



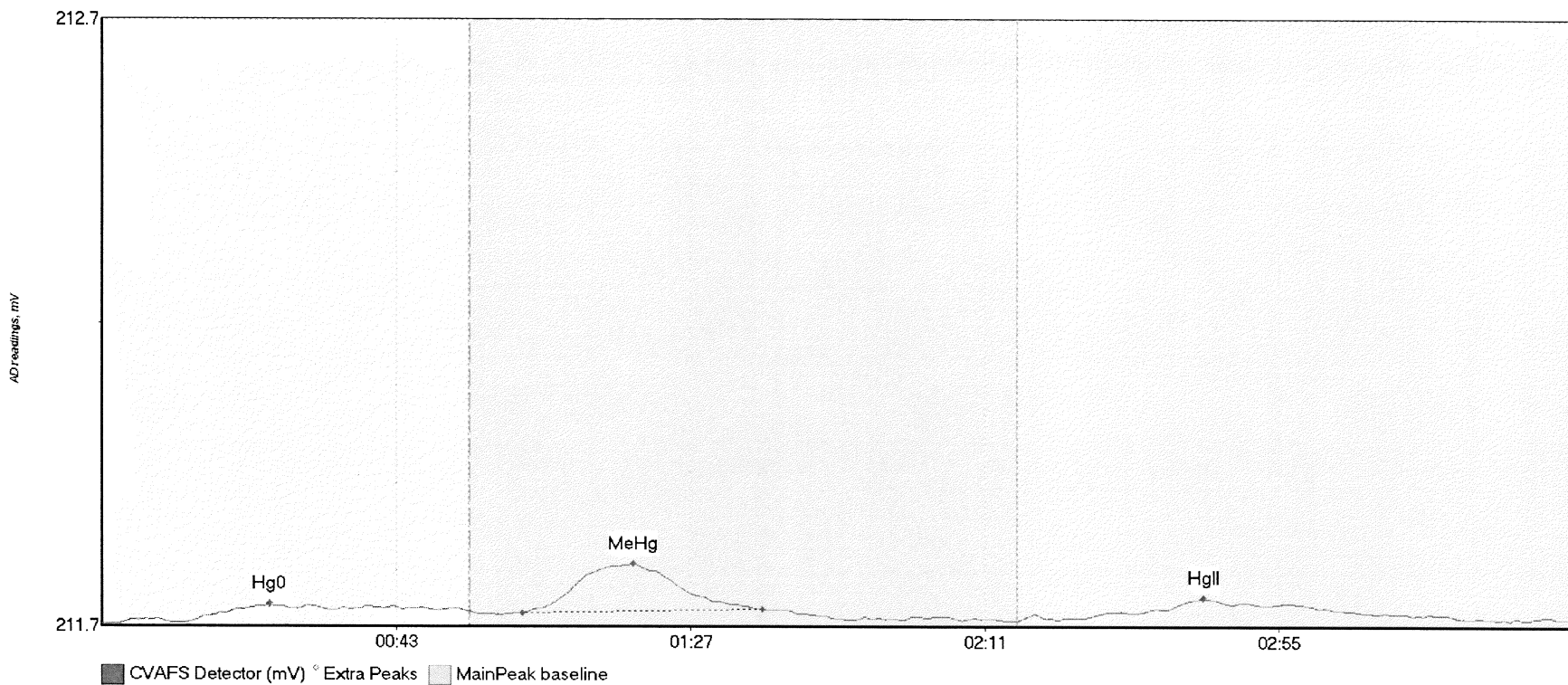
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710143-04 Hg0	3.418	13.1	33.8	211.69	211.71	24.1	0.036	OK	211.6894	0.00	0.01	
1710143-04 MeHg	20.022	64.3	100.3	211.71	211.71	76.1	0.121	OK	211.6894	0.00	0.01	
1710143-04 HgII	174.730	140.6	216.7	211.69	211.70	168.1	0.560	OK	211.6894	0.00	0.01	

#27: 1710143-05



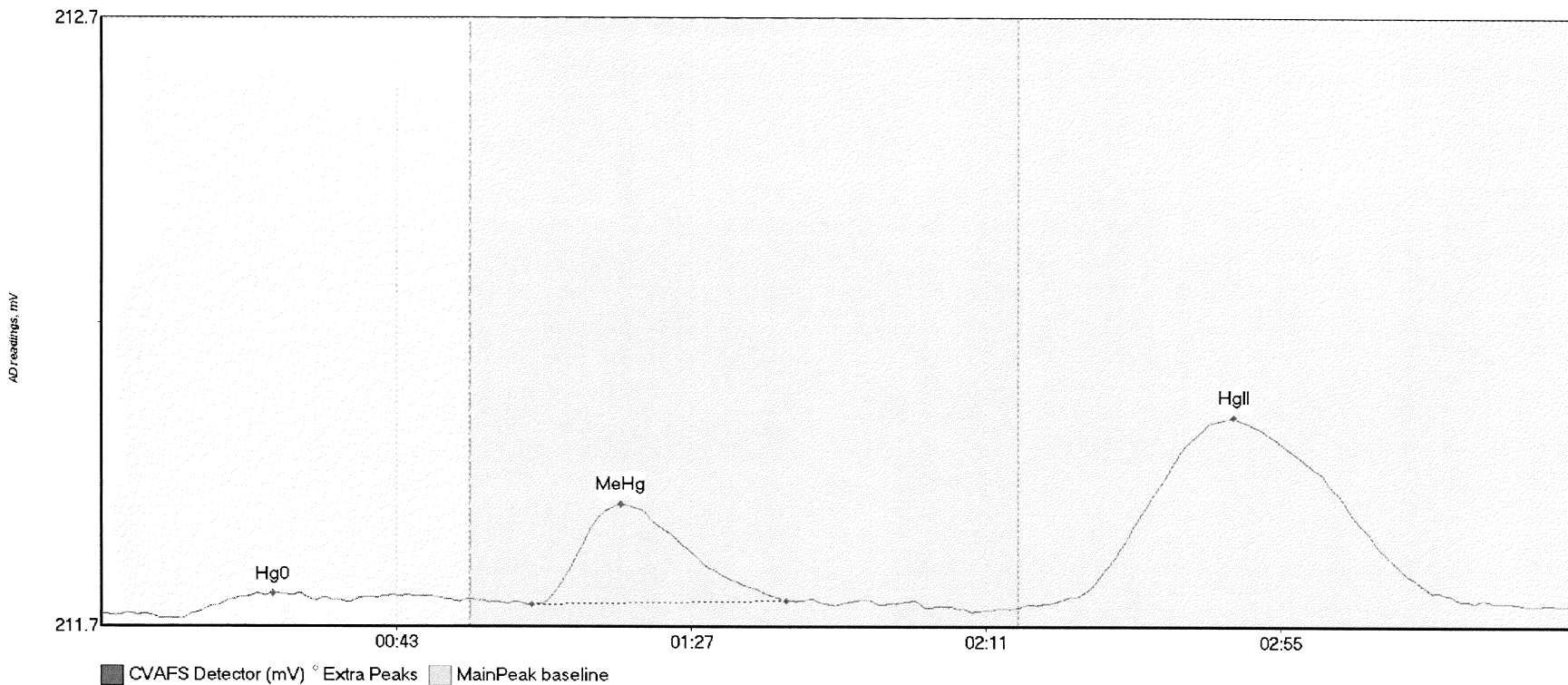
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710143-05 Hg0	3.691	15.9	47.3	211.69	211.71	37.1	0.026	OK	211.6882	0.00	0.00	
1710143-05 MeHg	19.838	64.1	98.6	211.72	211.71	77.5	0.121	OK	211.6882	0.00	0.00	
1710143-05 HgII	33.391	144.3	200.4	211.69	211.69	170.4	0.107	OK	211.6882	0.00	0.00	

#28: 1710143-06



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710143-06 Hg0	5.322	12.5	54.9	211.68	211.70	25.0	0.029	OK	211.6811	0.00	0.01	
1710143-06 MeHg	13.541	62.8	98.7	211.70	211.70	79.5	0.081	OK	211.6811	0.00	0.01	
1710143-06 HgII	8.456	146.8	203.0	211.69	211.69	164.7	0.033	OK	211.6811	0.00	0.01	

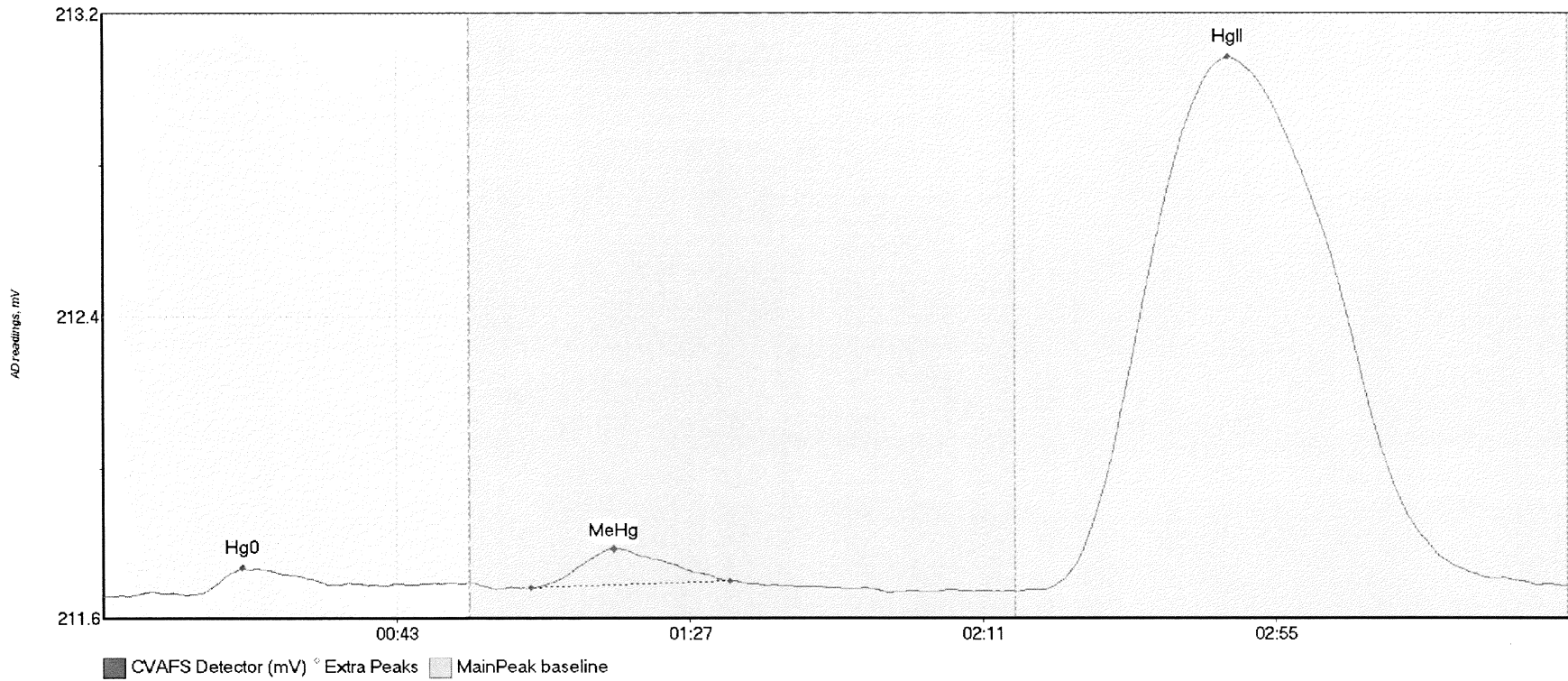
#29: 1710351-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710351-01 Hg0	4.089	11.8	36.8	211.68	211.71	25.6	0.042	OK	211.6894	0.00	0.02	
1710351-01 MeHg	29.404	64.2	102.1	211.70	211.71	77.4	0.166	OK	211.6894	0.00	0.02	
1710351-01 HgII	95.884	140.2	212.8	211.70	211.70	169.0	0.309	OK	211.6894	0.00	0.02	

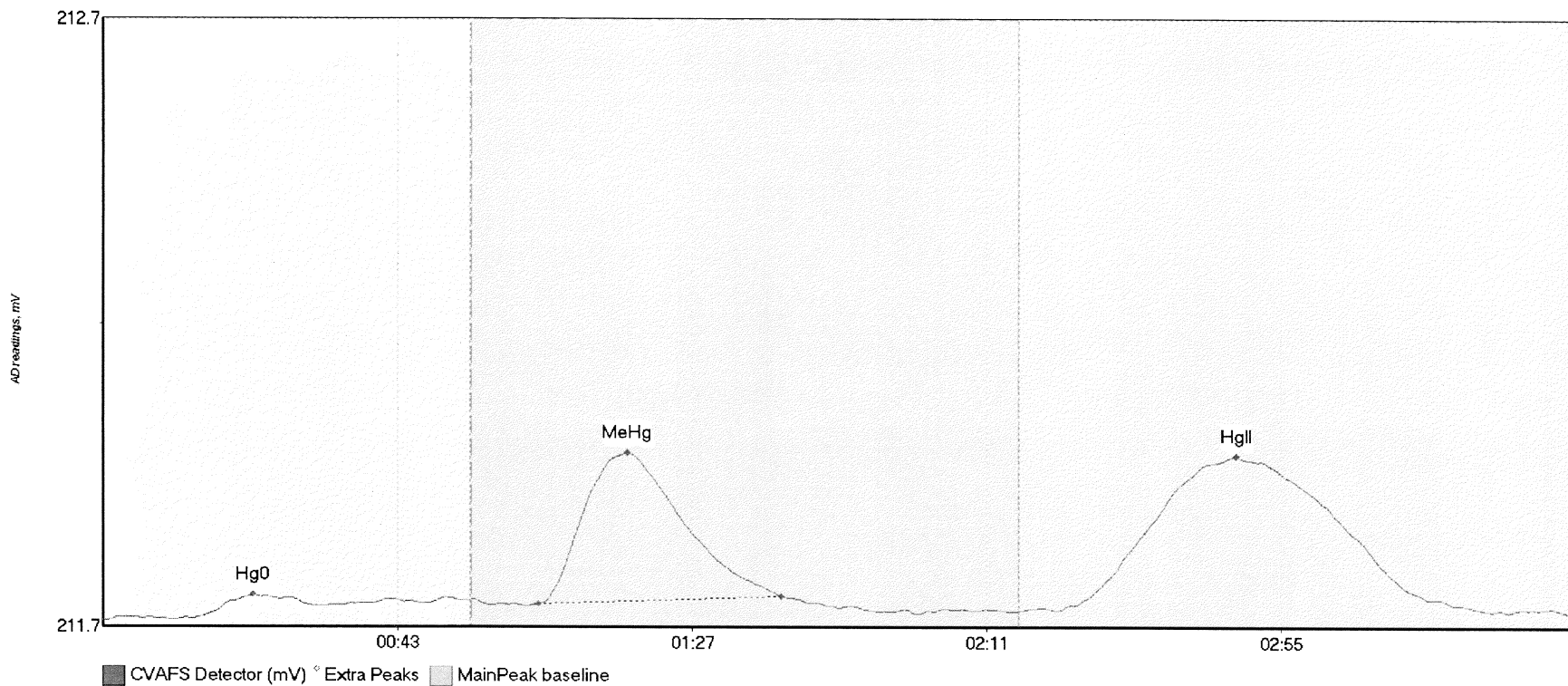
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#30: 1710351-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710351-03 Hg0	8.025	12.7	41.8	211.69	211.71	20.9	0.069	OK	211.6824	0.00	0.03	
1710351-03 MeHg	14.226	64.1	94.0	211.70	211.72	76.6	0.105	OK	211.6824	0.00	0.03	
1710351-03 HgII	436.646	140.9	219.8	211.70	211.71	168.9	1.383	CT	211.6824	0.00	0.03	

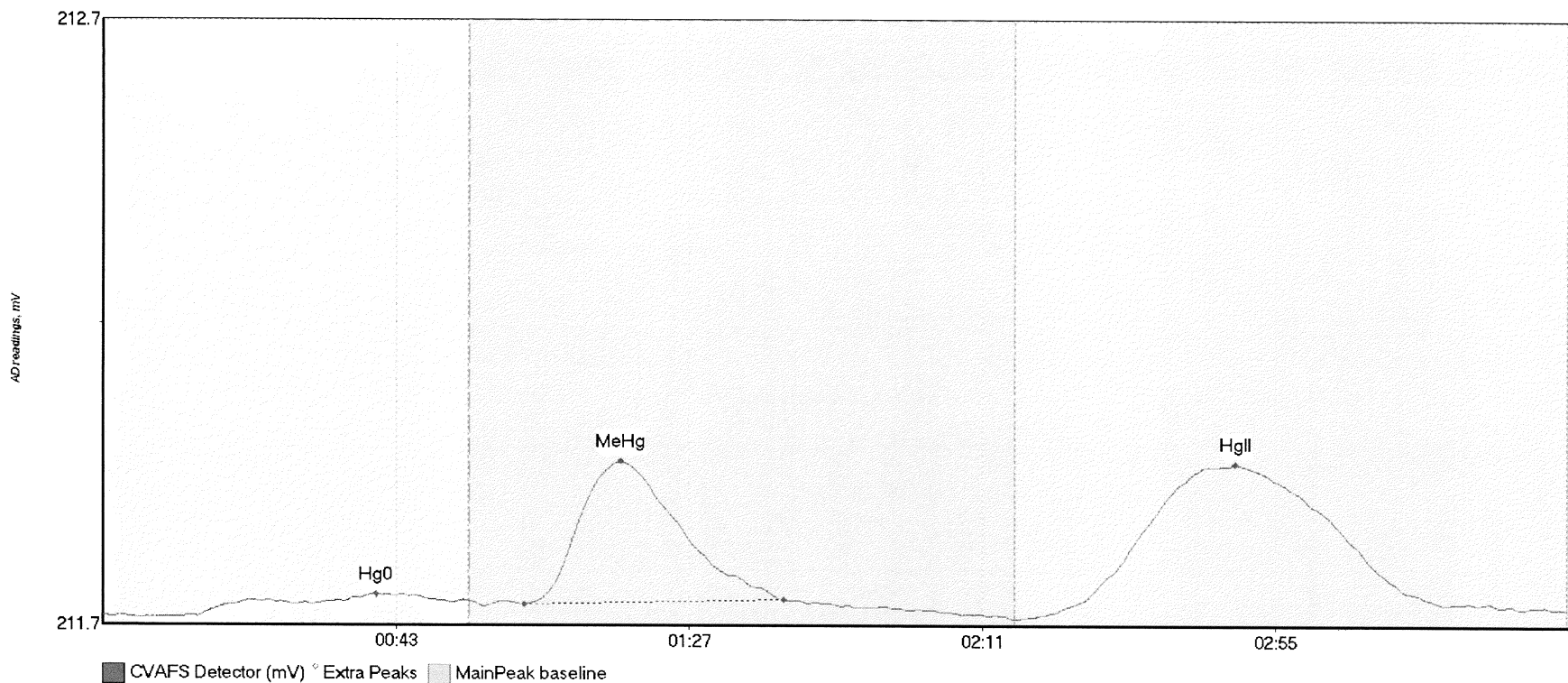
#31: 1710351-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710351-04 Hg0	2.893	13.6	32.9	211.68	211.70	22.5	0.038	OK	211.6731	0.00	0.01	
1710351-04 MeHg	41.627	65.0	101.3	211.70	211.71	78.3	0.250	OK	211.6731	0.00	0.01	
1710351-04 HgII	78.198	142.5	205.7	211.69	211.69	169.3	0.255	OK	211.6731	0.00	0.01	

017

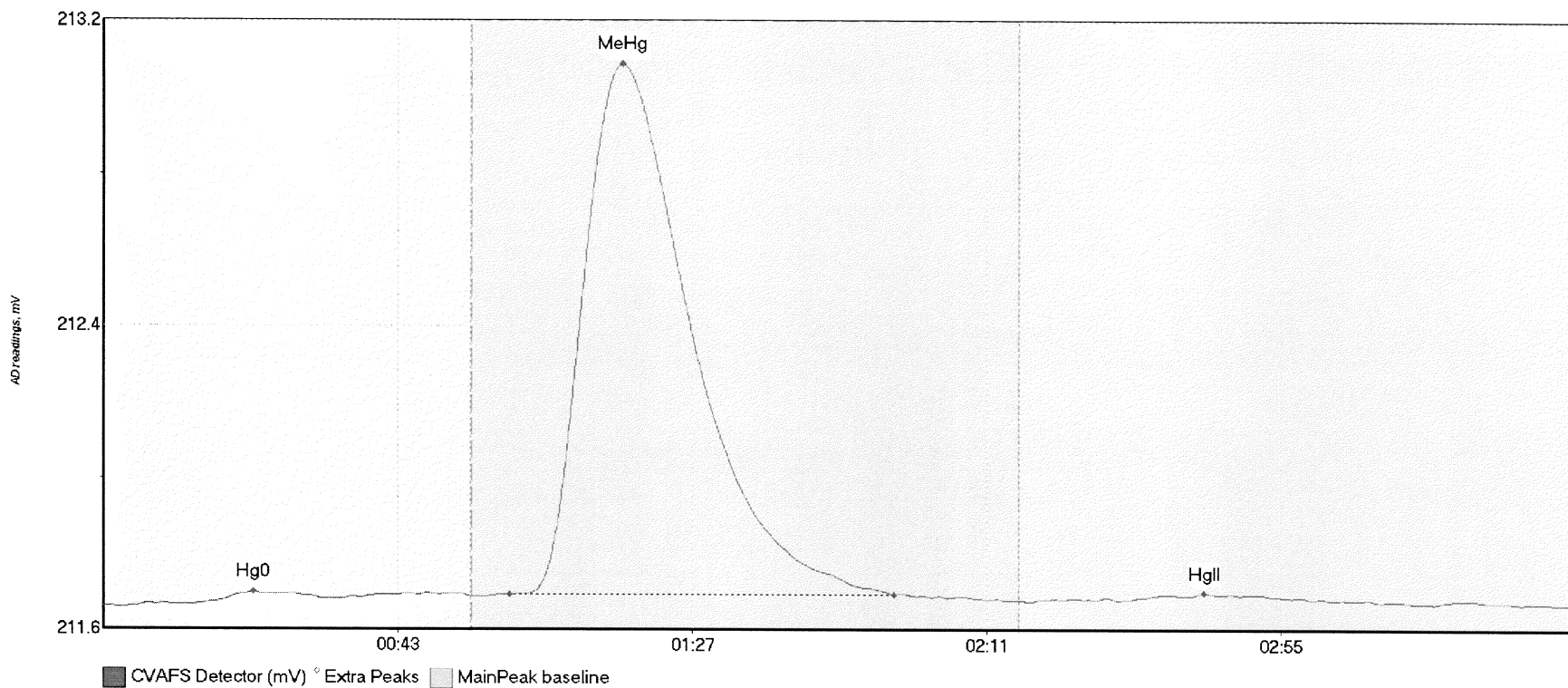
#32: 1710351-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710351-05 Hg0	5.150	14.3	52.3	211.68	211.70	41.0	0.037	OK	211.6818	0.00	0.01	
1710351-05 MeHg	40.138	63.3	102.2	211.70	211.71	77.8	0.237	OK	211.6818	0.00	0.01	
1710351-05 HgII	80.135	139.1	219.8	211.68	211.69	170.0	0.254	CT	211.6818	0.00	0.01	

017

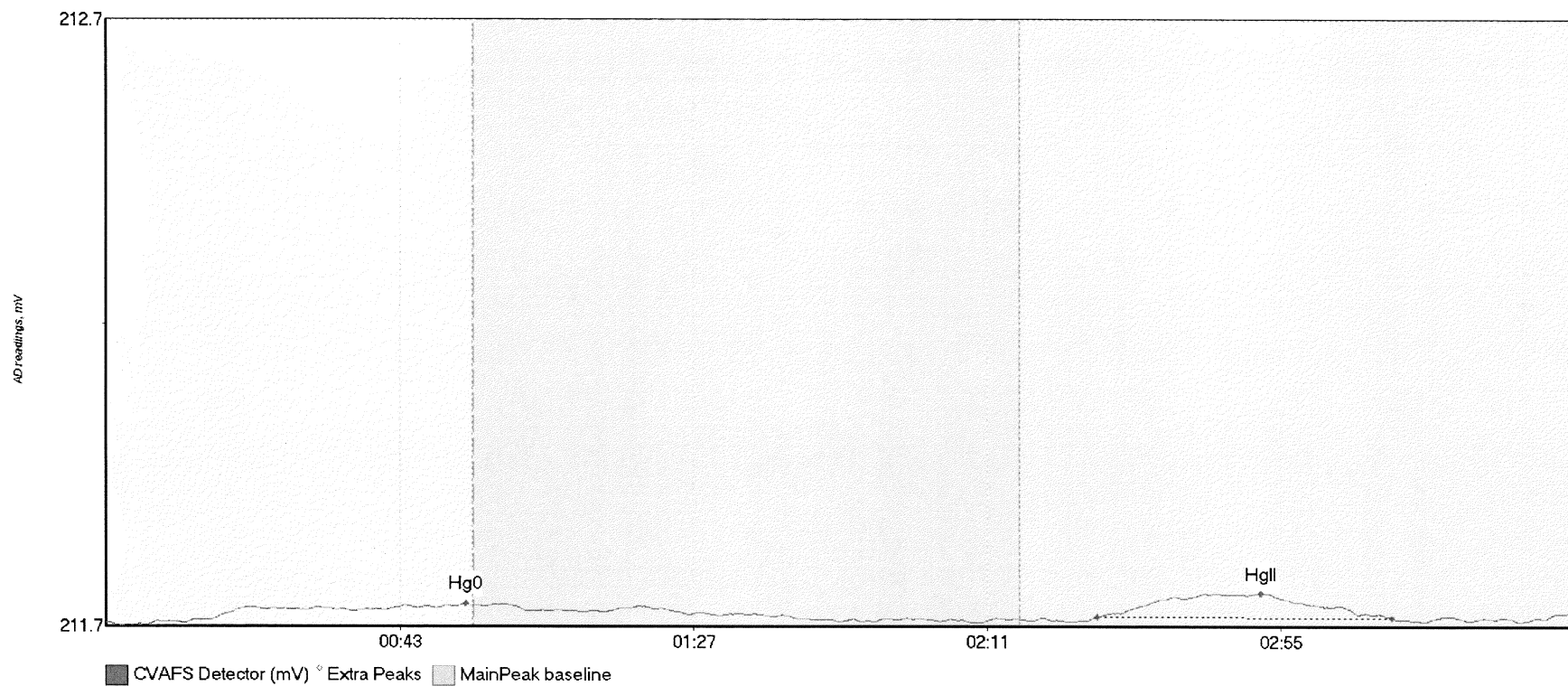
#33: SEQ-CCV2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	2.417	10.6	32.8	211.68	211.69	22.5	0.032	OK	211.6743	0.00	0.01	
SEQ-CCV2 MeHg	255.446	60.7	118.2	211.70	211.70	77.6	1.376	OK	211.6743	0.00	0.01	
SEQ-CCV2 HgII	2.483	153.6	180.5	211.69	211.69	164.6	0.017	OK	211.6743	0.00	0.01	

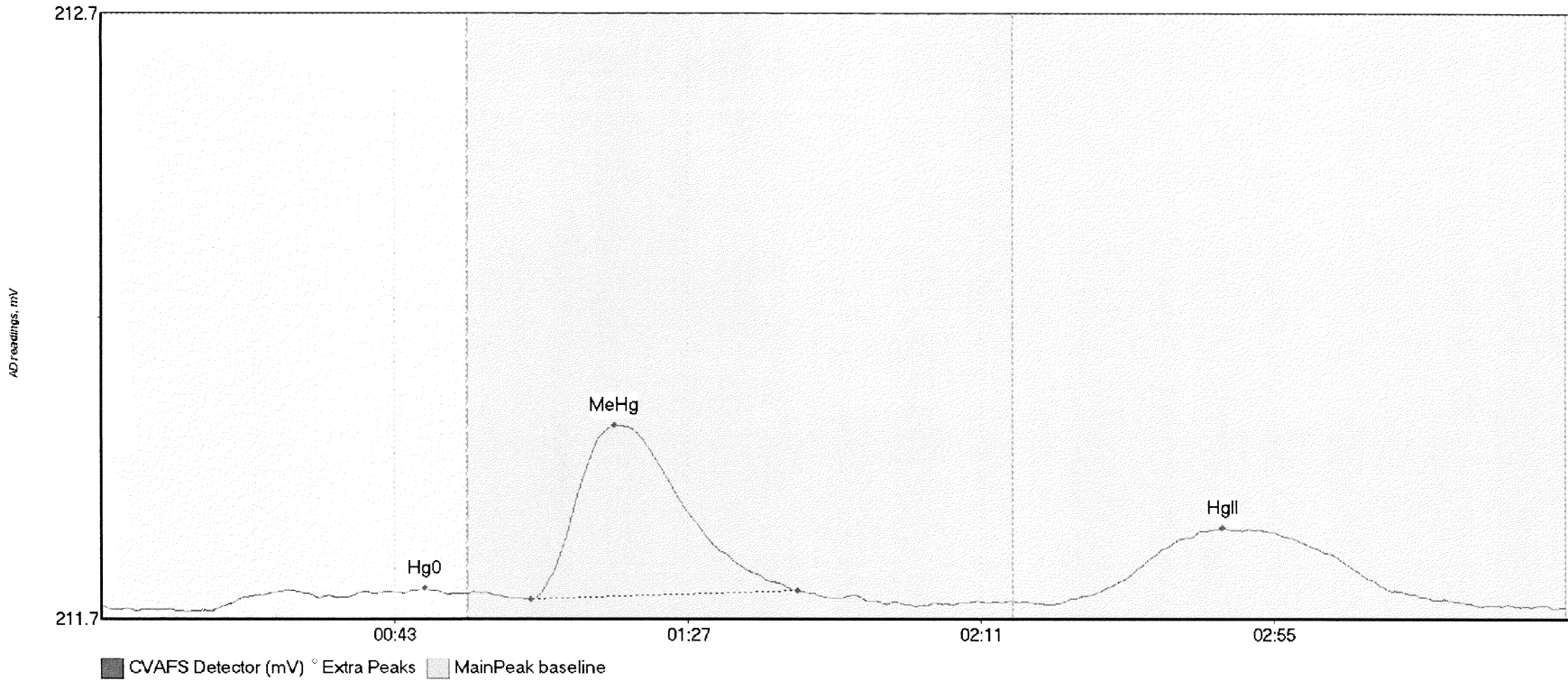
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#34: SEQ-CCB2



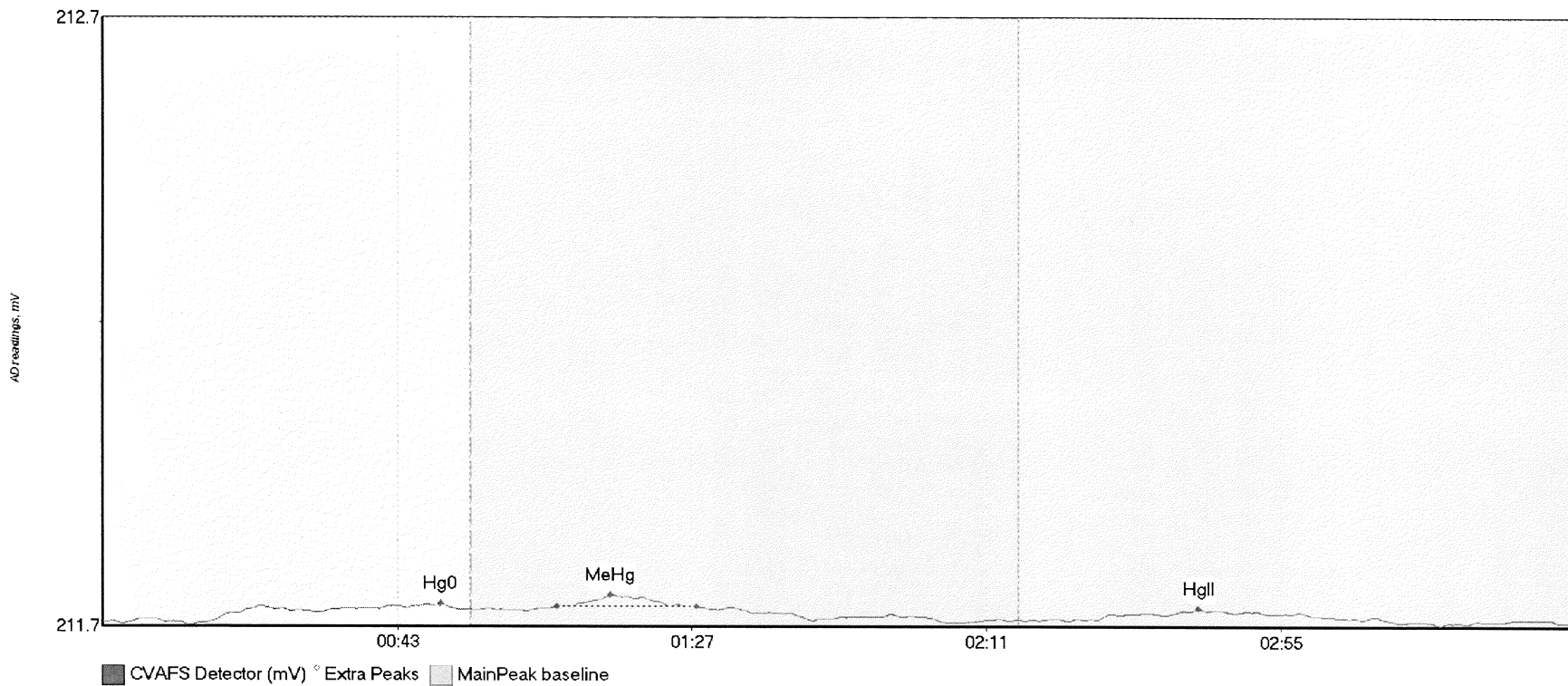
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	2.537	15.2	55.0	211.68	211.70	53.8	0.026	CT	211.6741	0.00	0.02	
SEQ-CCB2 HgII	10.739	148.4	192.8	211.68	211.68	173.1	0.040	OK	211.6741	0.00	0.02	017

#35: 1710351-07



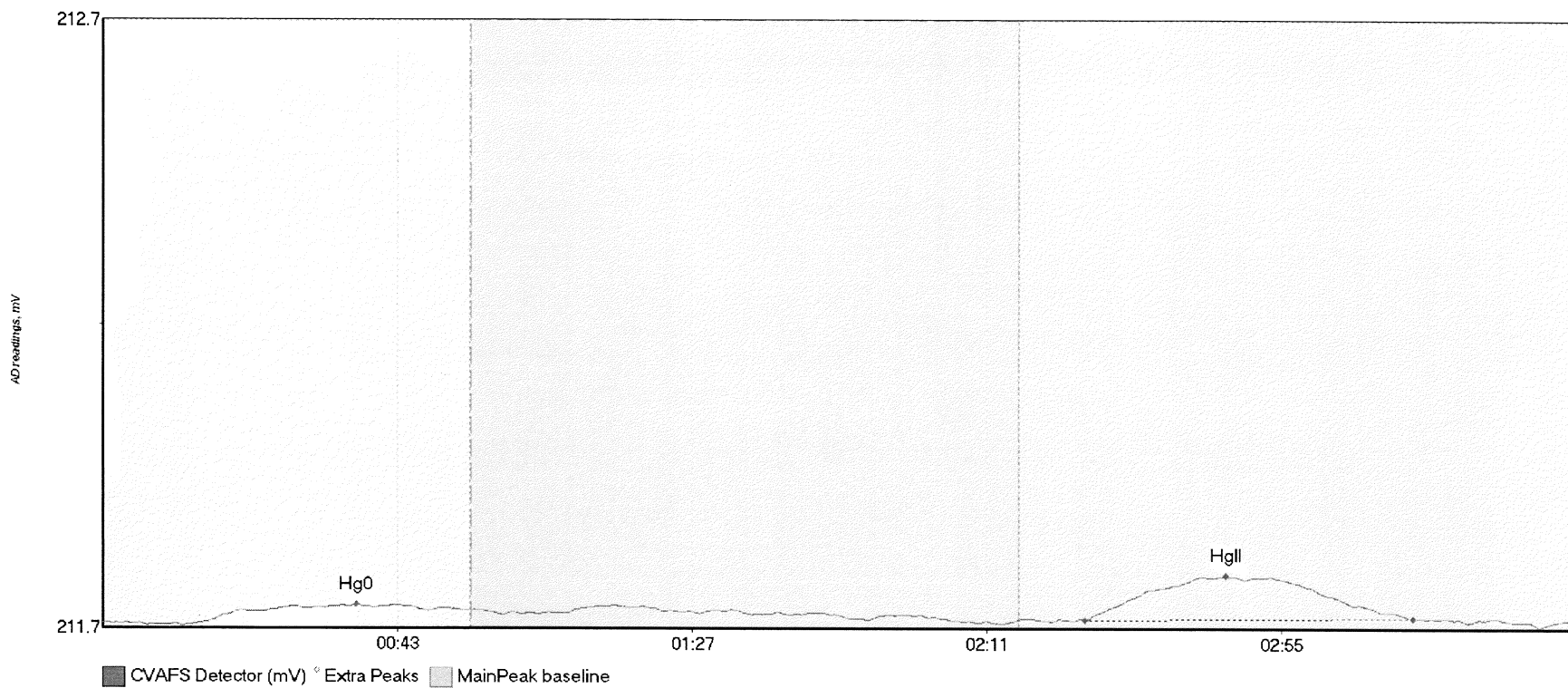
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710351-07 Hg0	4.484	16.3	51.9	211.67	211.70	48.6	0.037	OK	211.6797	0.00	0.00	
1710351-07 MeHg	51.259	64.4	104.4	211.69	211.71	77.0	0.288	OK	211.6797	0.00	0.00	
1710351-07 HgII	35.171	145.8	200.2	211.69	211.69	168.3	0.117	OK	211.6797	0.00	0.00	

#36: 1710351-08



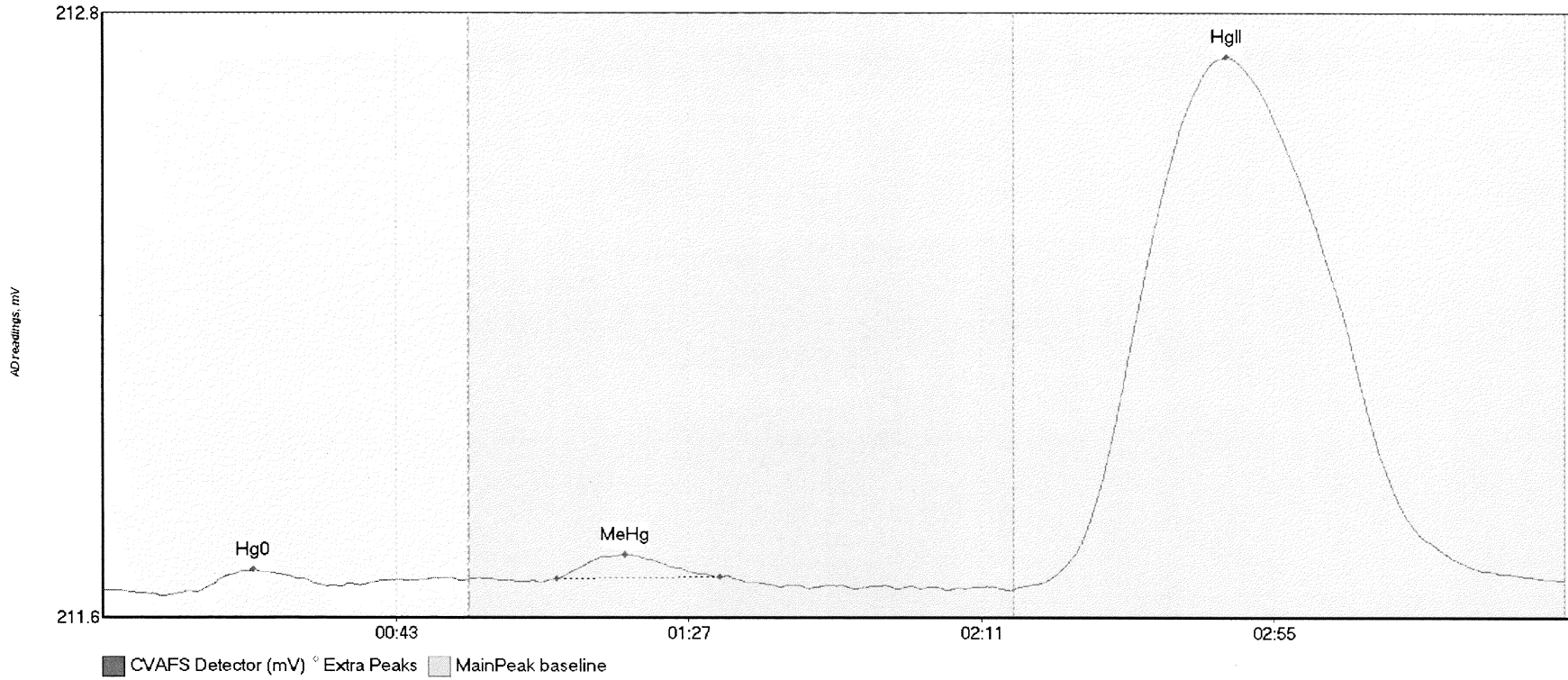
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710351-08 Hg0	4.092	15.6	53.3	211.68	211.70	50.4	0.030	OK	211.6841	0.00	0.00	
1710351-08 MeHg	1.806	67.9	88.8	211.71	211.71	75.9	0.019	OK	211.6841	0.00	0.00	
1710351-08 HgII	3.339	148.7	184.8	211.69	211.69	163.8	0.018	OK	211.6841	0.00	0.00	

#37: 1710360-01



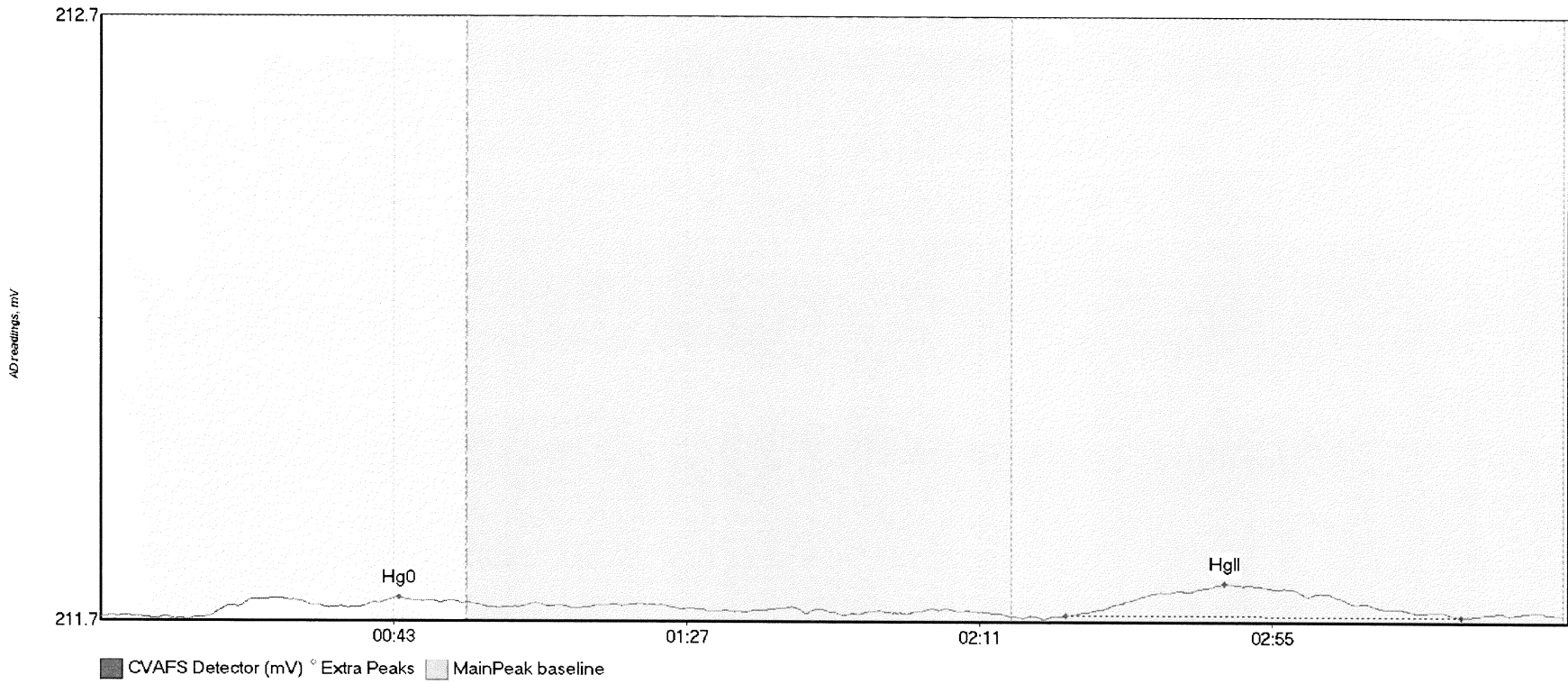
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710360-01 Hg0	4.550	13.3	48.6	211.67	211.70	37.9	0.032	OK	211.6765	0.00	0.00	
1710360-01 HgII	20.945	146.8	195.8	211.68	211.68	167.7	0.073	OK	211.6765	0.00	0.00	017

#38: 1710360-02



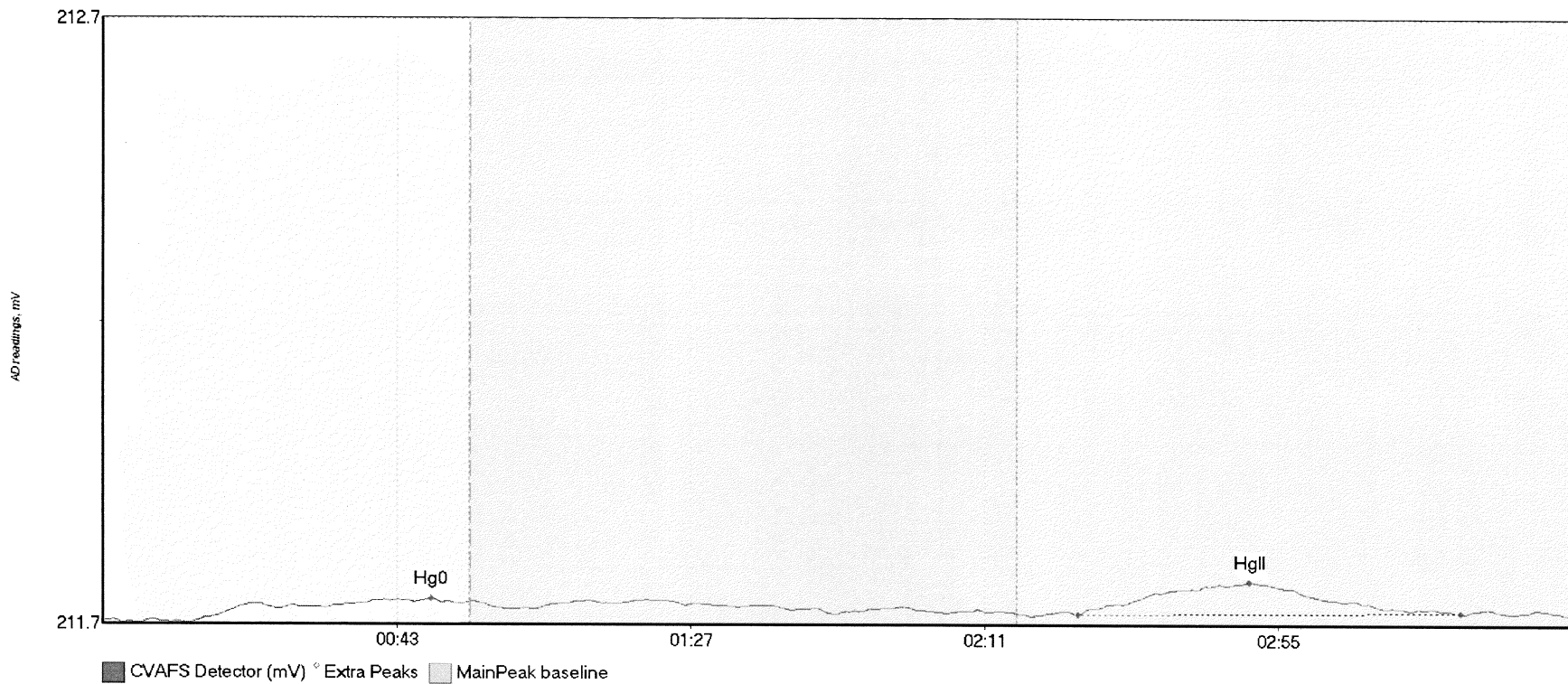
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710360-02 Hg0	4.345	13.9	35.7	211.68	211.69	22.6	0.041	OK	211.6827	0.00	0.02	
1710360-02 MeHg	6.093	68.1	92.8	211.70	211.71	78.5	0.045	OK	211.6827	0.00	0.02	
1710360-02 HgII	314.735	138.2	219.1	211.69	211.70	168.9	1.004	OK	211.6827	0.00	0.02	

#39: 1710360-03



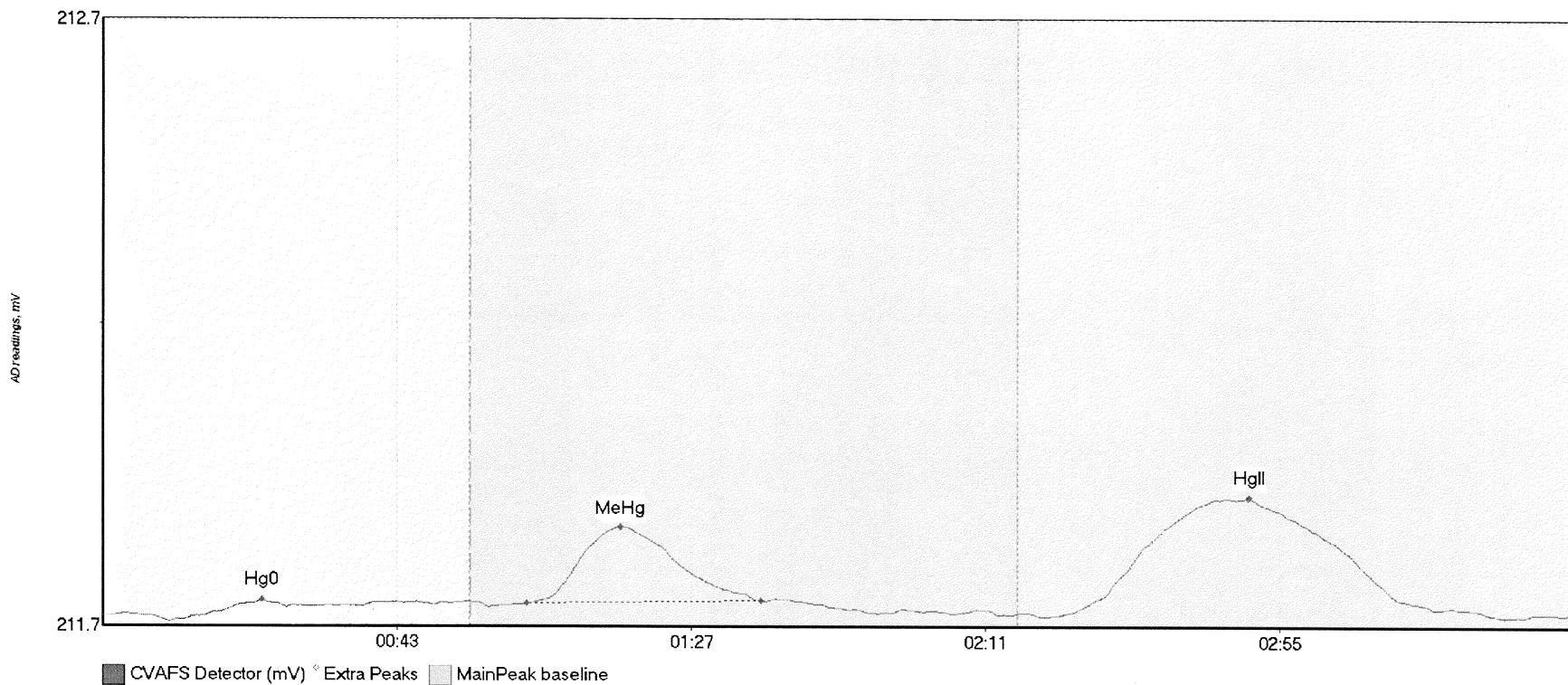
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710360-03 Hg0	4.420	15.8	54.2	211.68	211.71	44.9	0.033	OK	211.6832	0.00	0.01	
1710360-03 HgII	17.142	145.0	204.4	211.69	211.69	168.9	0.054	OK	211.6832	0.00	0.01	017

#40: 1710360-04



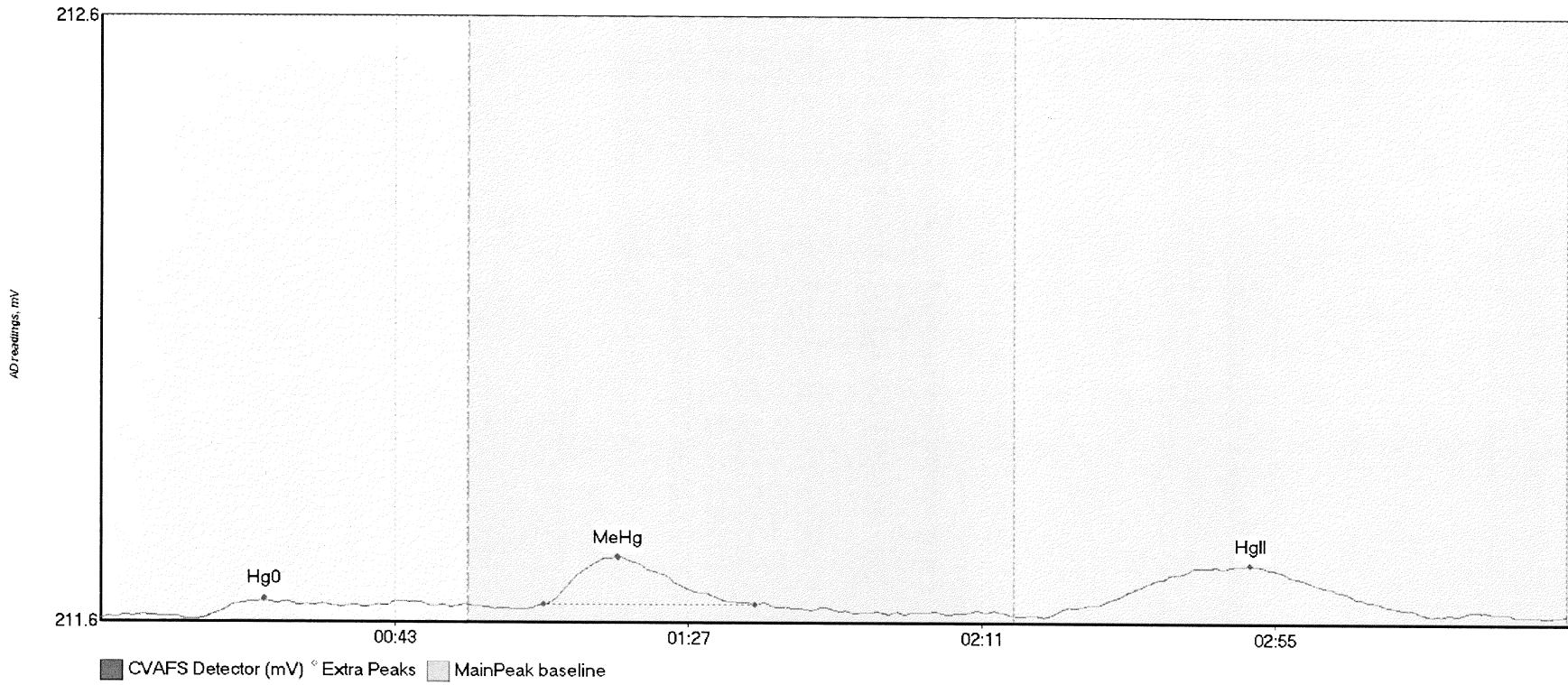
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710360-04 Hg0	3.540	16.0	53.8	211.68	211.71	49.2	0.030	OK	211.6797	0.00	0.01	
1710360-04 HgII	15.165	146.0	203.4	211.69	211.69	171.7	0.054	OK	211.6797	0.00	0.01	017

#41: 1710366-01RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710366-01RE1 H	0.992	15.2	27.4	211.67	211.68	23.8	0.025	OK	211.6703	0.00	0.00	
1710366-01RE1 M	20.173	63.5	98.4	211.69	211.69	77.4	0.127	OK	211.6703	0.00	0.00	
1710366-01RE1 H	58.804	145.2	207.9	211.68	211.67	171.4	0.190	OK	211.6703	0.00	0.00	

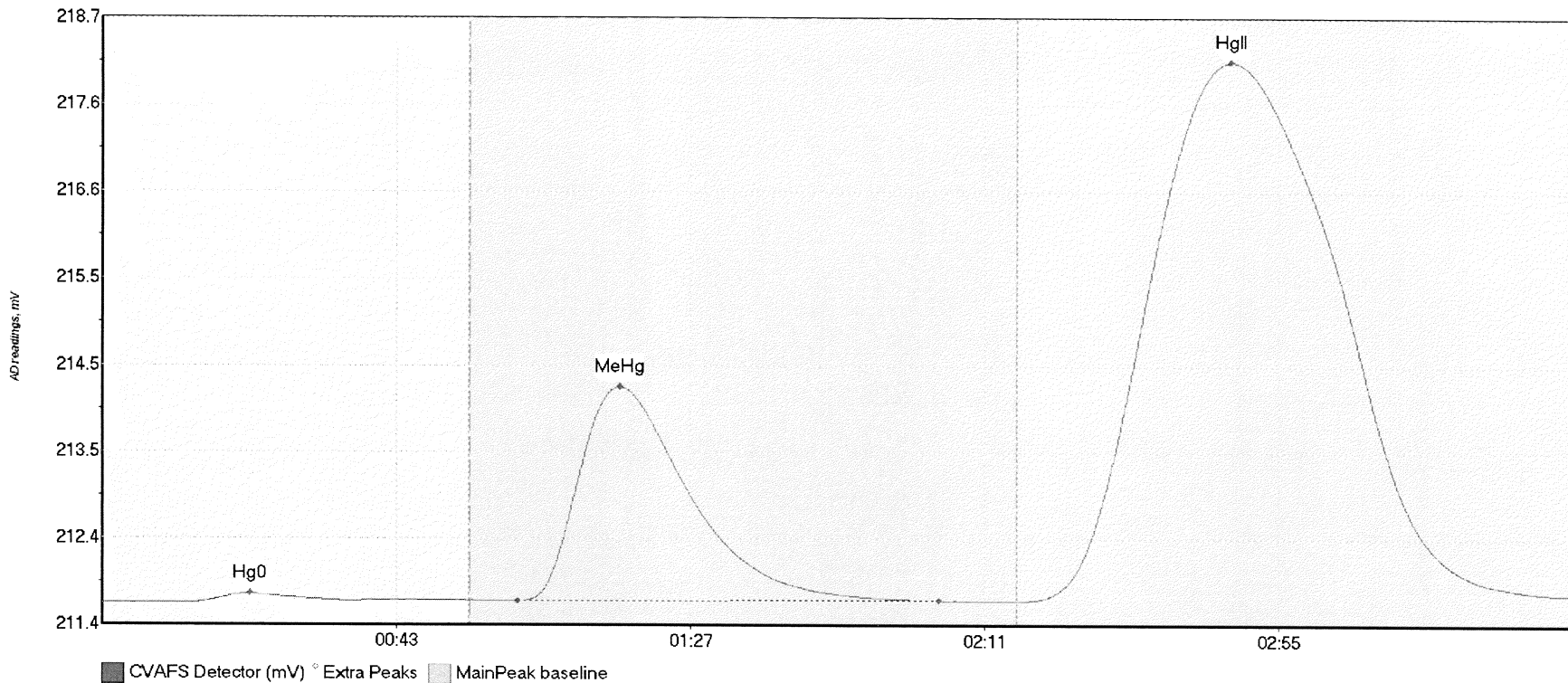
#42: 1710478-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710478-02 Hg0	3.120	14.3	39.6	211.65	211.67	24.4	0.032	OK	211.6548	0.00	0.01	
1710478-02 MeHg	12.049	66.3	98.0	211.68	211.68	77.5	0.079	OK	211.6548	0.00	0.01	
1710478-02 HgII	26.009	142.1	199.5	211.66	211.66	172.3	0.085	OK	211.6548	0.00	0.01	

017

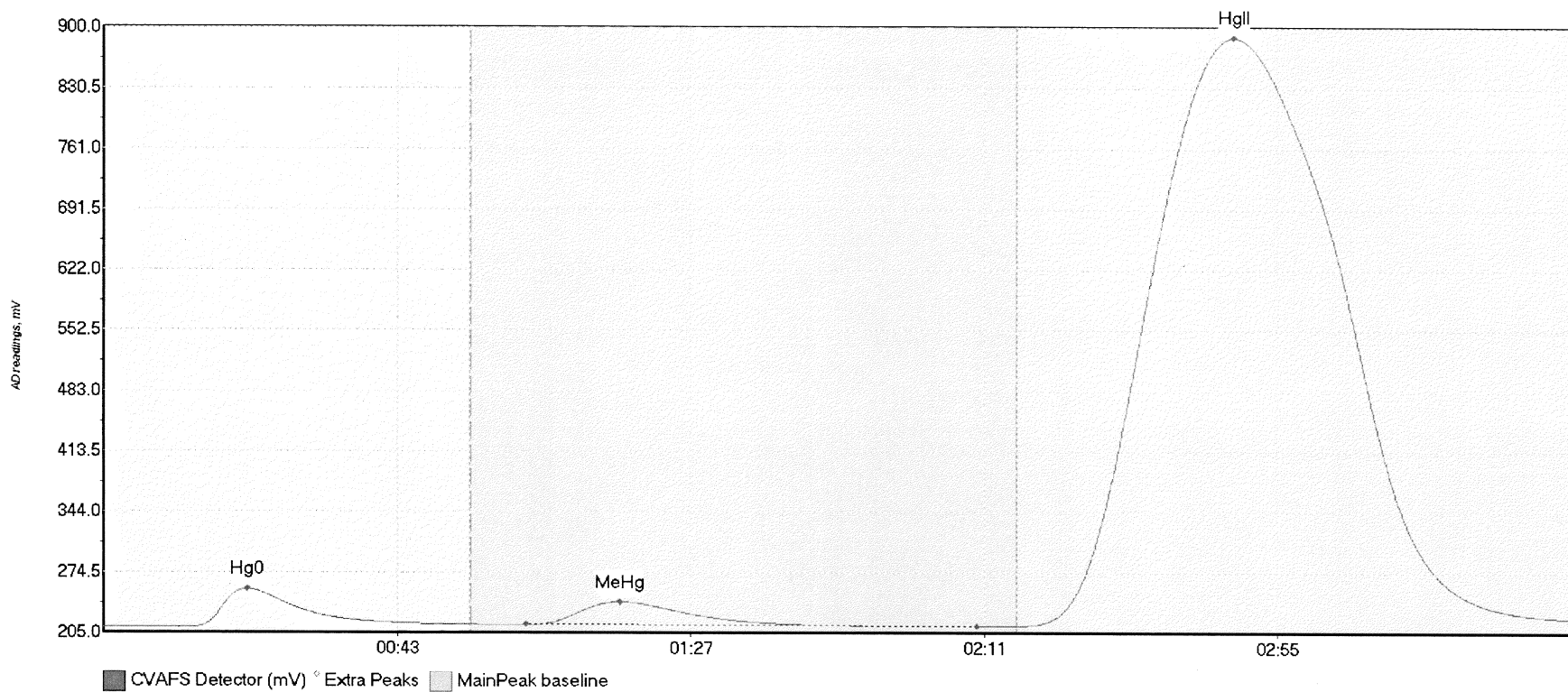
#43: 1710581-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710581-01 Hg0	11.078	10.7	37.6	211.64	211.67	22.1	0.107	OK	211.6443	0.00	0.11	
1710581-01 MeHg	486.910	62.1	125.2	211.67	211.68	77.4	2.573	OK	211.6443	0.00	0.11	
1710581-01 HgII	2057.180	137.8	218.5	211.67	211.75	168.9	6.470	OK	211.6443	0.00	0.11	

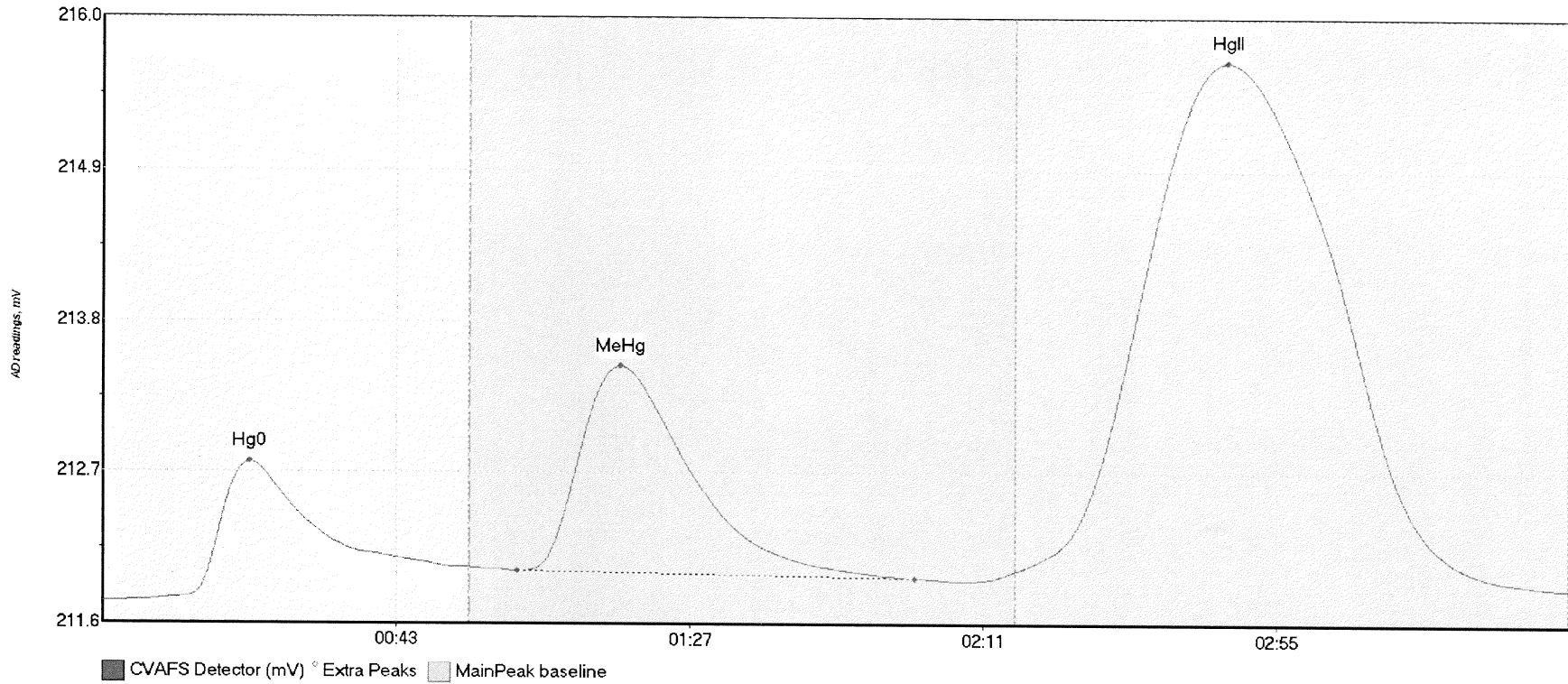
017

#44: 1710581-02



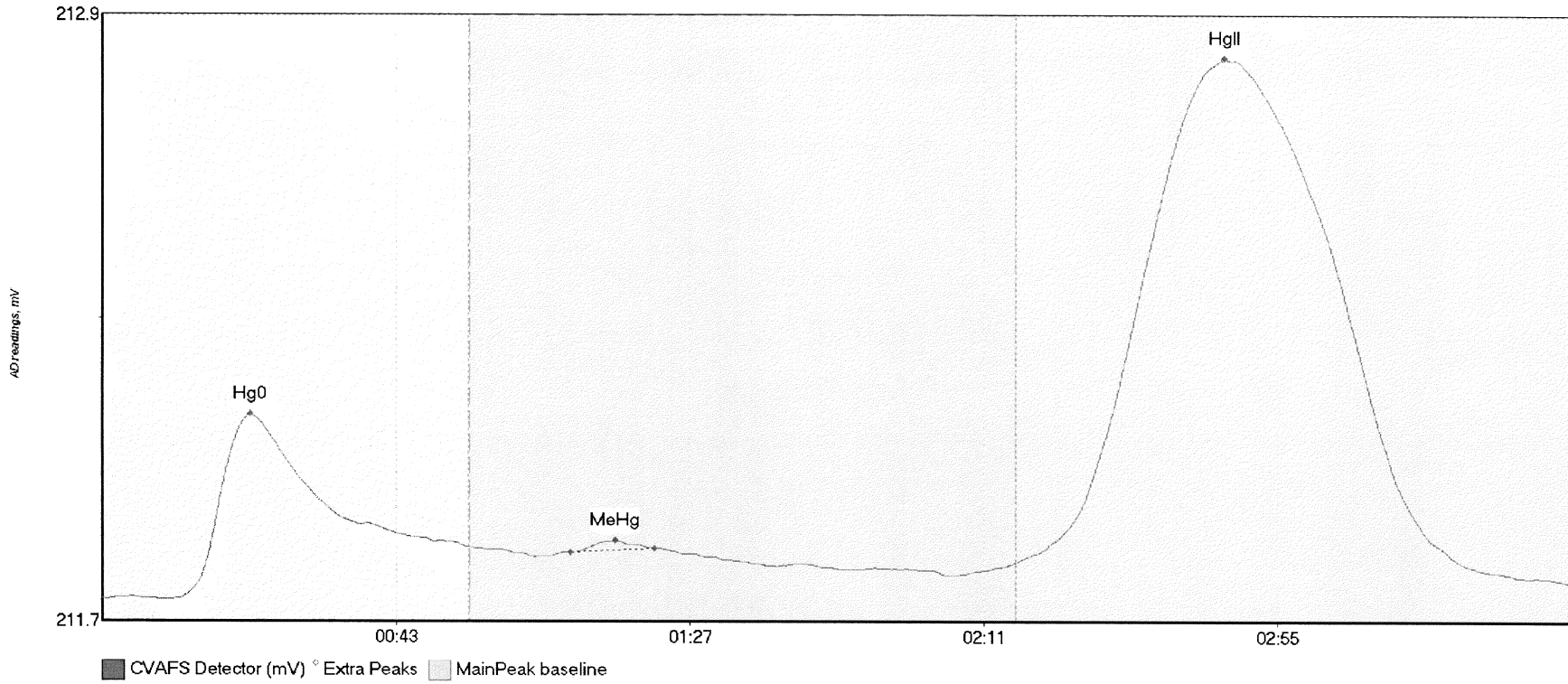
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710581-02 Hg0	5493.160	11.1	55.0	211.64	214.45	21.6	43.423	CT	211.6536	0.00	9.69	
1710581-02 MeHg	4959.624	63.3	130.9	213.85	212.47	77.5	26.322	OK	211.6536	0.00	9.69	
1710581-02 HgII	216093.962	136.8	219.8	212.71	221.25	169.5	675.426	CT	211.6536	0.00	9.69	

#45: SEQ-CCV3



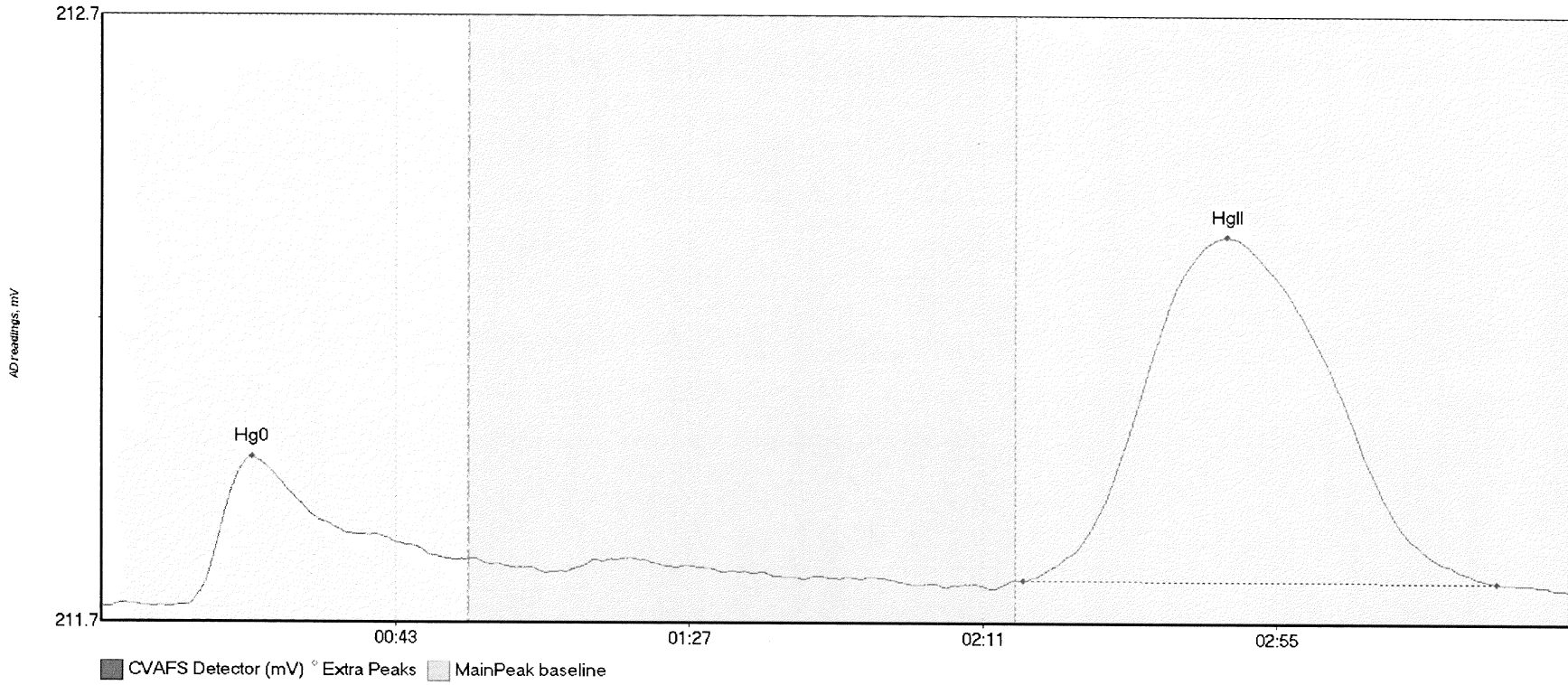
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	138.298	1.9	55.0	211.78	212.03	22.0	0.999	CT	211.7833	0.00	0.11	
SEQ-CCV3 MeHg	281.903	62.1	121.7	212.00	211.95	77.6	1.470	OK	211.7833	0.00	0.11	017
SEQ-CCV3 HgII	1197.190	136.8	218.3	212.01	211.89	168.6	3.653	OK	211.7833	0.00	0.11	

#46: SEQ-CCB3



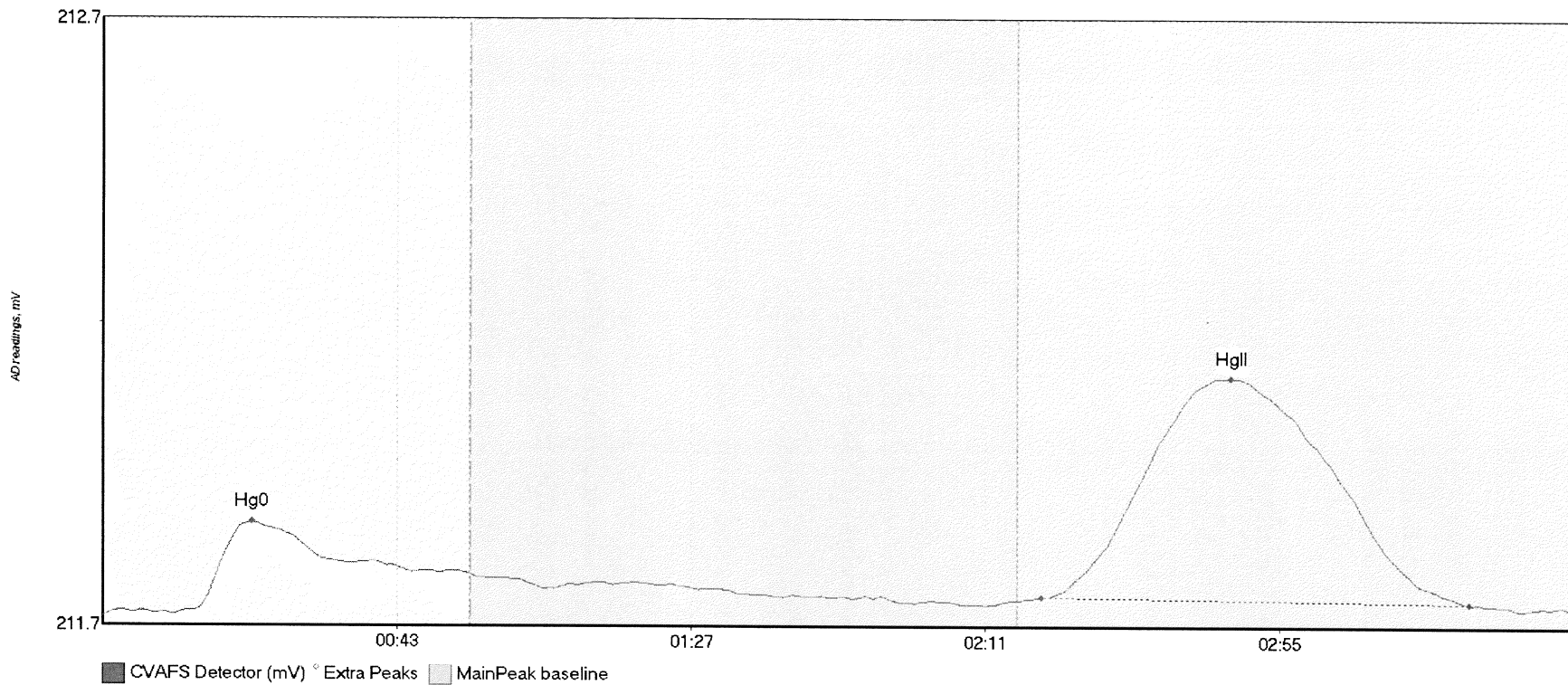
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	56.176	11.3	55.0	211.72	211.82	22.1	0.372	CT	211.7157	0.00	0.03	
SEQ-CCB3 MeHg	1.333	70.1	82.8	211.81	211.82	76.9	0.024	OK	211.7157	0.00	0.03	
SEQ-CCB3 HgII	329.320	136.8	208.1	211.79	211.77	168.1	1.019	OK	211.7157	0.00	0.03	

#47: F710421-BLK1



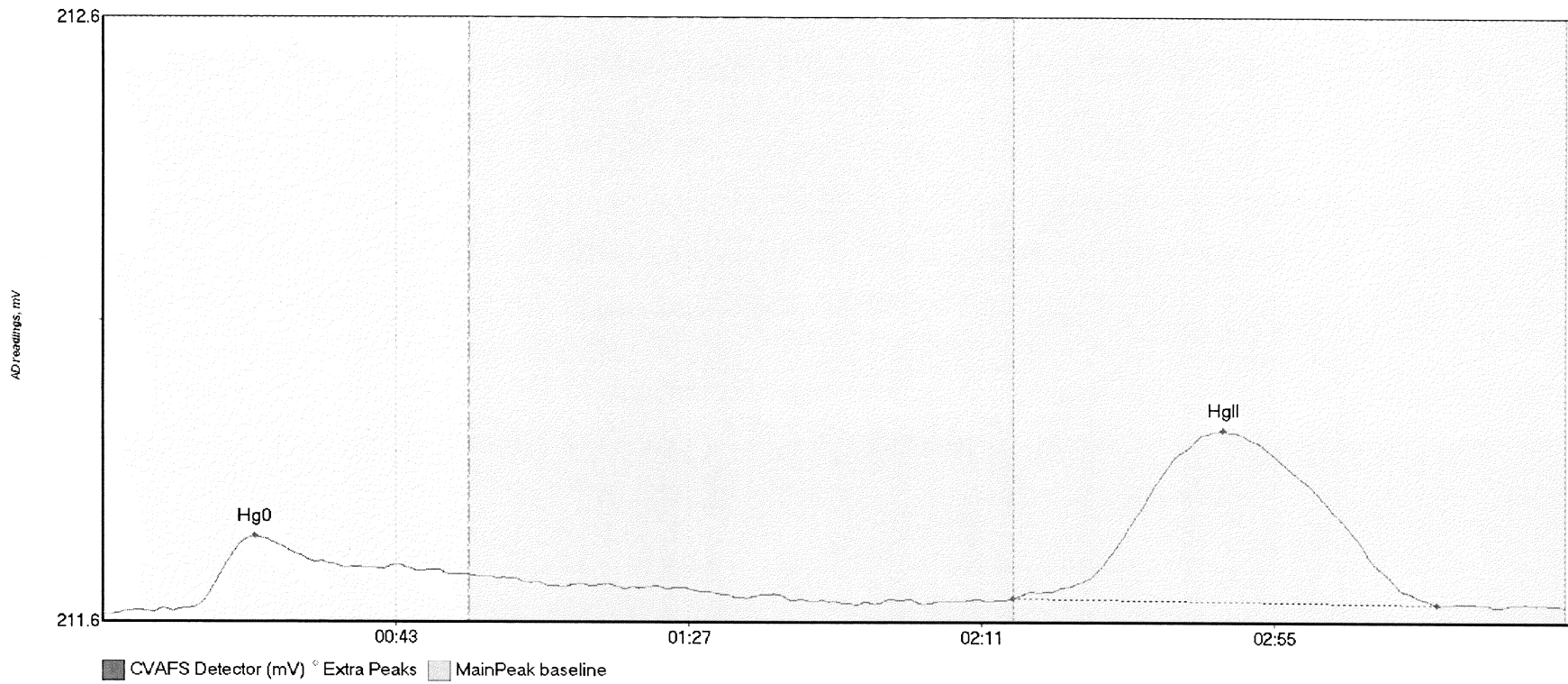
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLK1 Hg	38.054	13.0	53.1	211.68	211.76	22.6	0.244	OK	211.6825	0.00	0.03	
F710421-BLK1 Hg	181.212	138.0	209.0	211.73	211.72	168.6	0.569	OK	211.6825	0.00	0.03	017

#48: F710421-BLK2



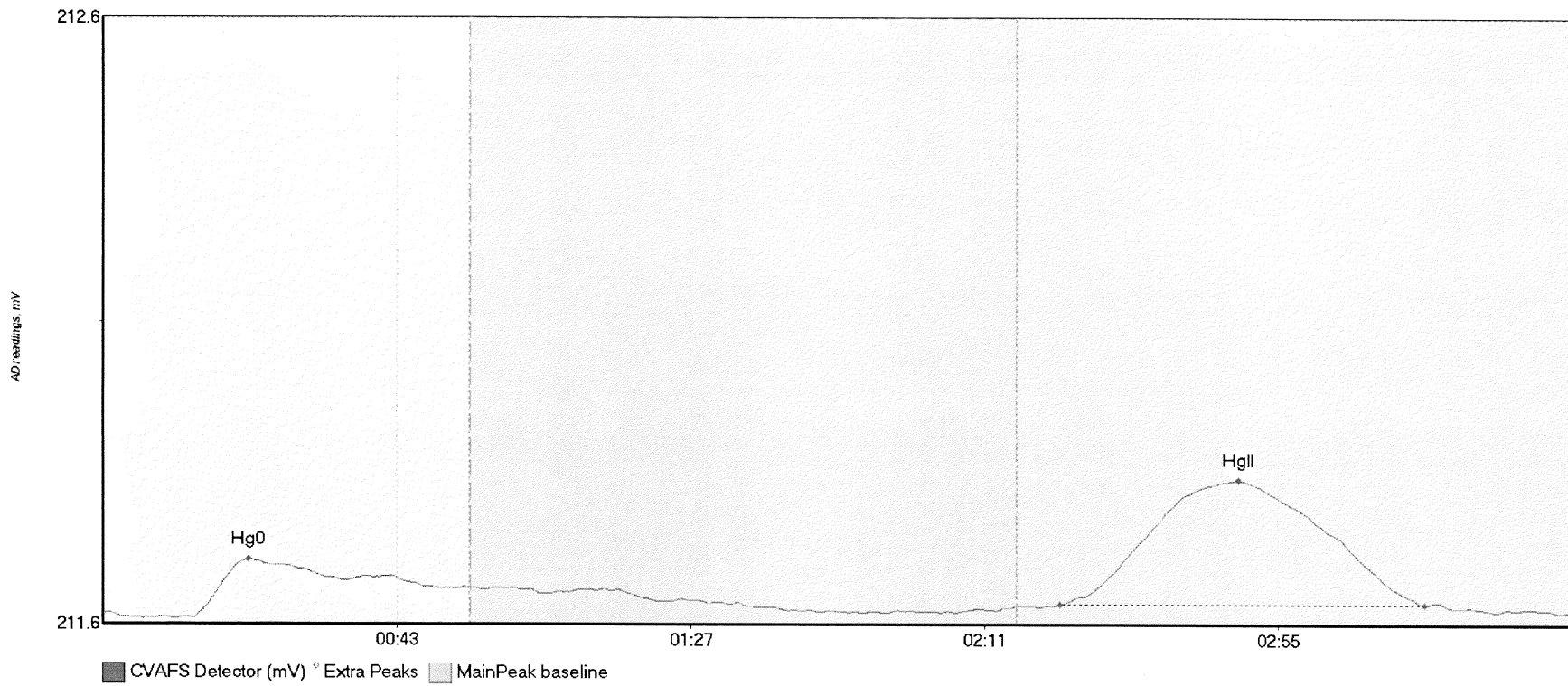
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLK2 Hg	24.069	10.6	55.0	211.68	211.75	22.3	0.152	CT	211.6777	0.00	0.01	
F710421-BLK2 Hg	115.488	140.4	204.4	211.71	211.70	168.7	0.363	OK	211.6777	0.00	0.01	017

#49: F710421-BLK3



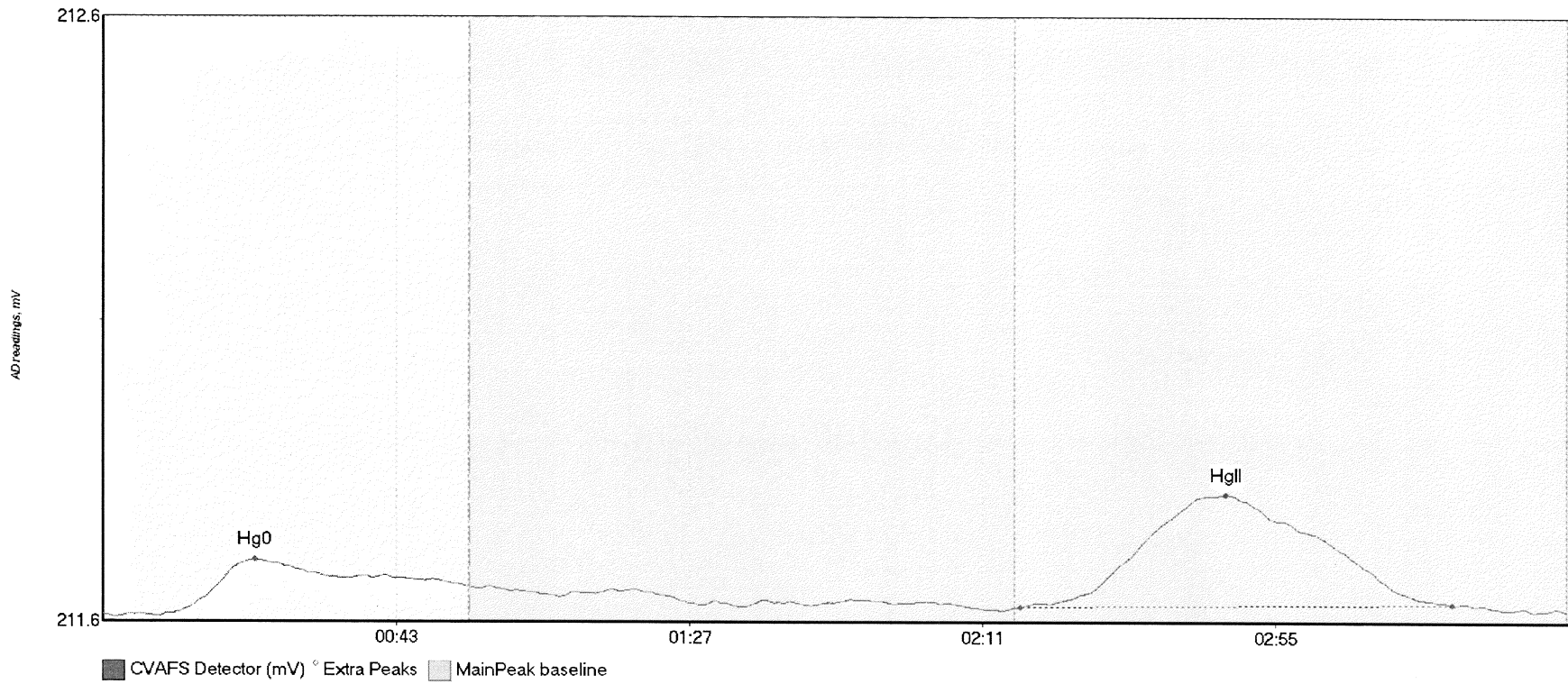
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLK3 Hg	19.036	10.6	55.0	211.67	211.73	22.8	0.125	CT	211.6622	0.00	0.01	
F710421-BLK3 Hg	85.796	136.8	200.4	211.69	211.68	168.3	0.279	OK	211.6622	0.00	0.01	017

#50: *F710421-BLK4



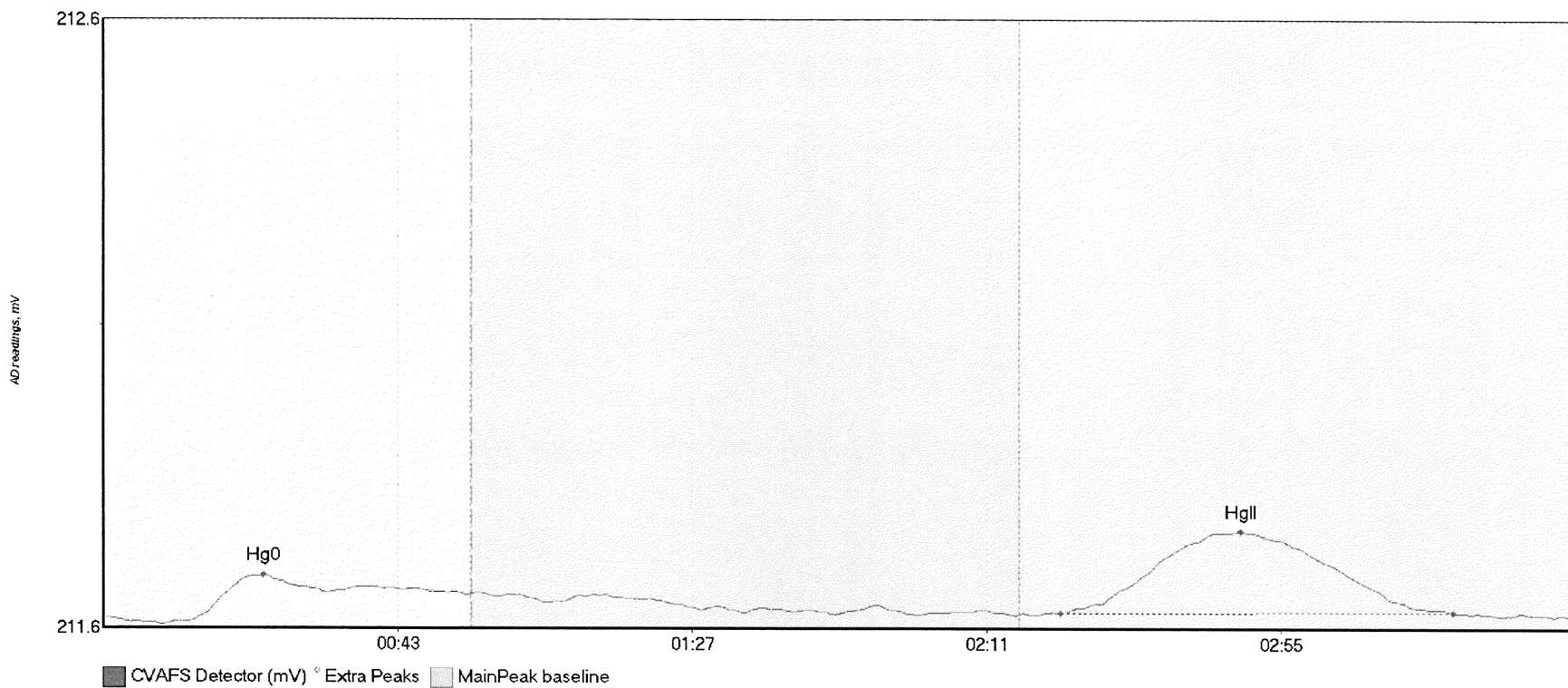
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLK4 H	15.797	13.4	50.8	211.65	211.70	21.8	0.096	OK	211.6566	0.00	0.00	
*F710421-BLK4 H	60.767	143.3	198.0	211.67	211.67	170.0	0.206	OK	211.6566	0.00	0.00	017

#51: *F710421-BLK5



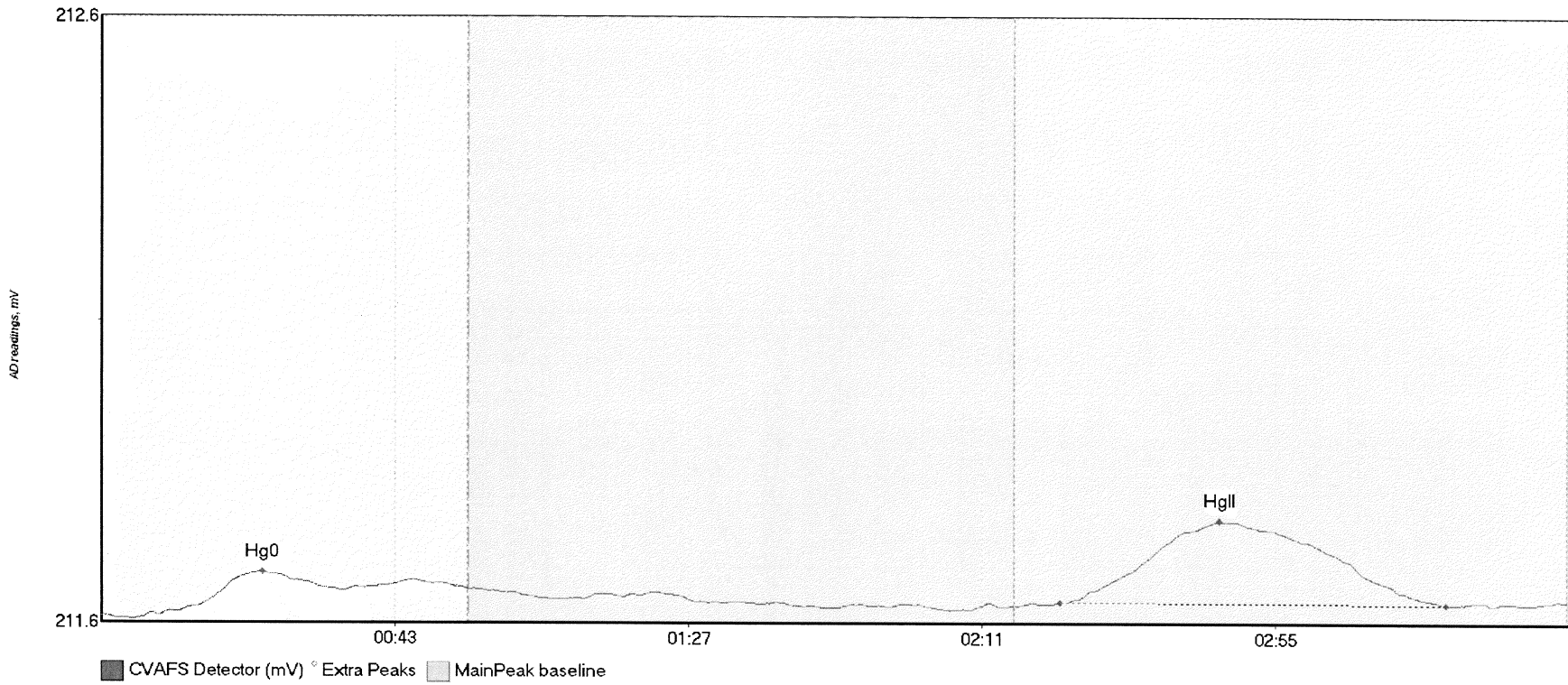
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLK5 H	15.662	11.3	55.0	211.65	211.69	22.9	0.087	CT	211.6430	0.00	0.01	
*F710421-BLK5 H	55.608	137.7	202.6	211.66	211.66	168.6	0.187	OK	211.6430	0.00	0.01	017

#52: *F710421-BLK6



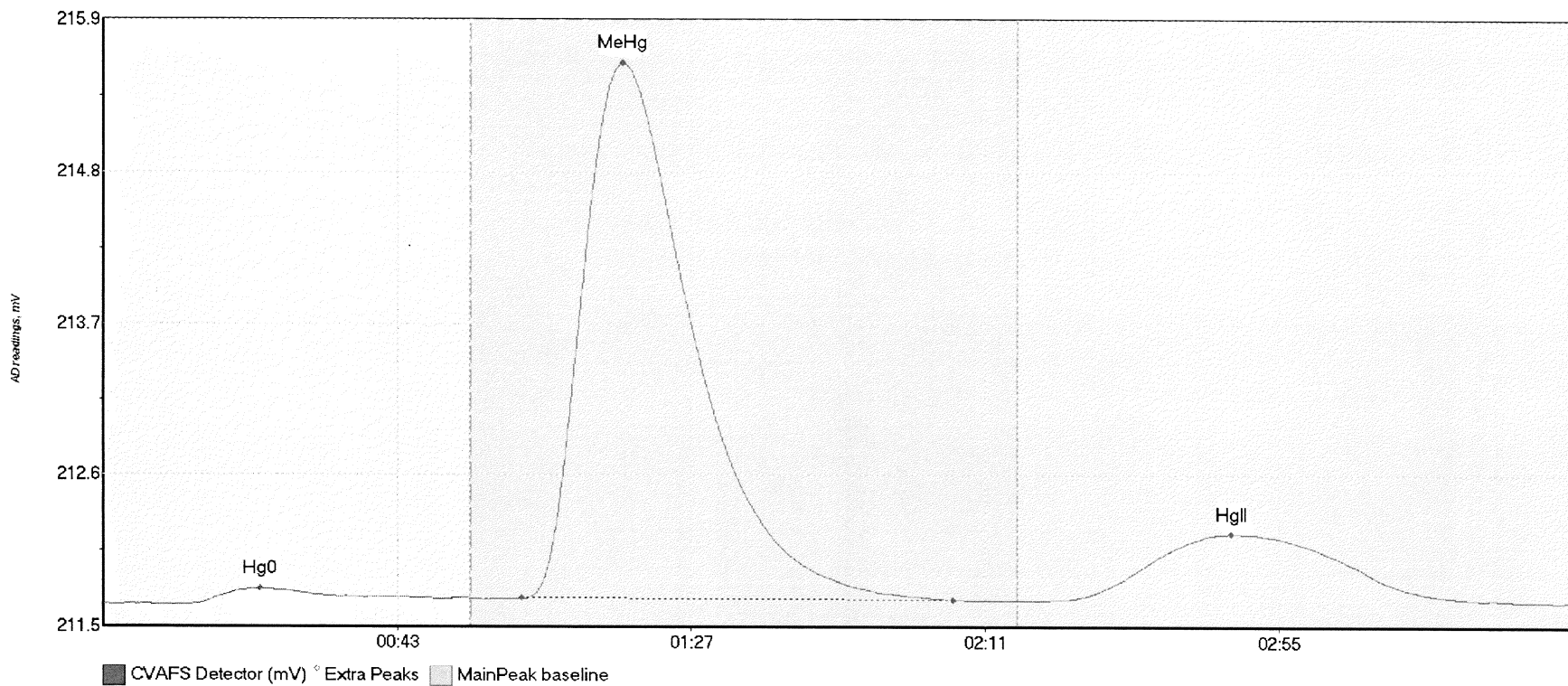
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLK6 H	12.333	12.5	54.3	211.63	211.67	24.0	0.075	OK	211.6361	0.00	0.00	
*F710421-BLK6 H	39.383	143.0	201.8	211.64	211.64	170.1	0.135	OK	211.6361	0.00	0.00	017

#53: *F710421-BLK7



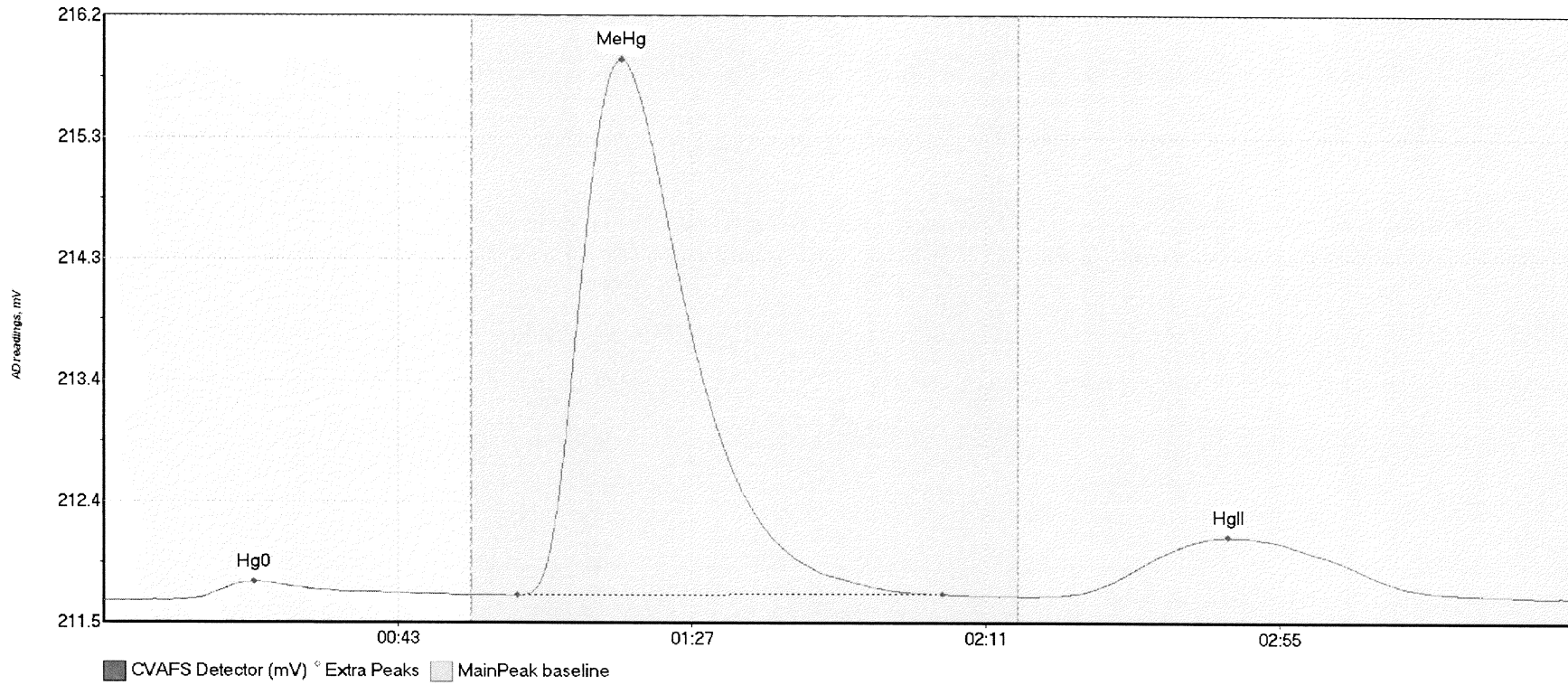
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLK7 H	6.190	8.5	36.5	211.63	211.67	24.2	0.071	OK	211.6297	0.00	0.02	
*F710421-BLK7 H	41.400	143.7	201.6	211.65	211.65	167.6	0.135	OK	211.6297	0.00	0.02	017

#54: F710421-BS1



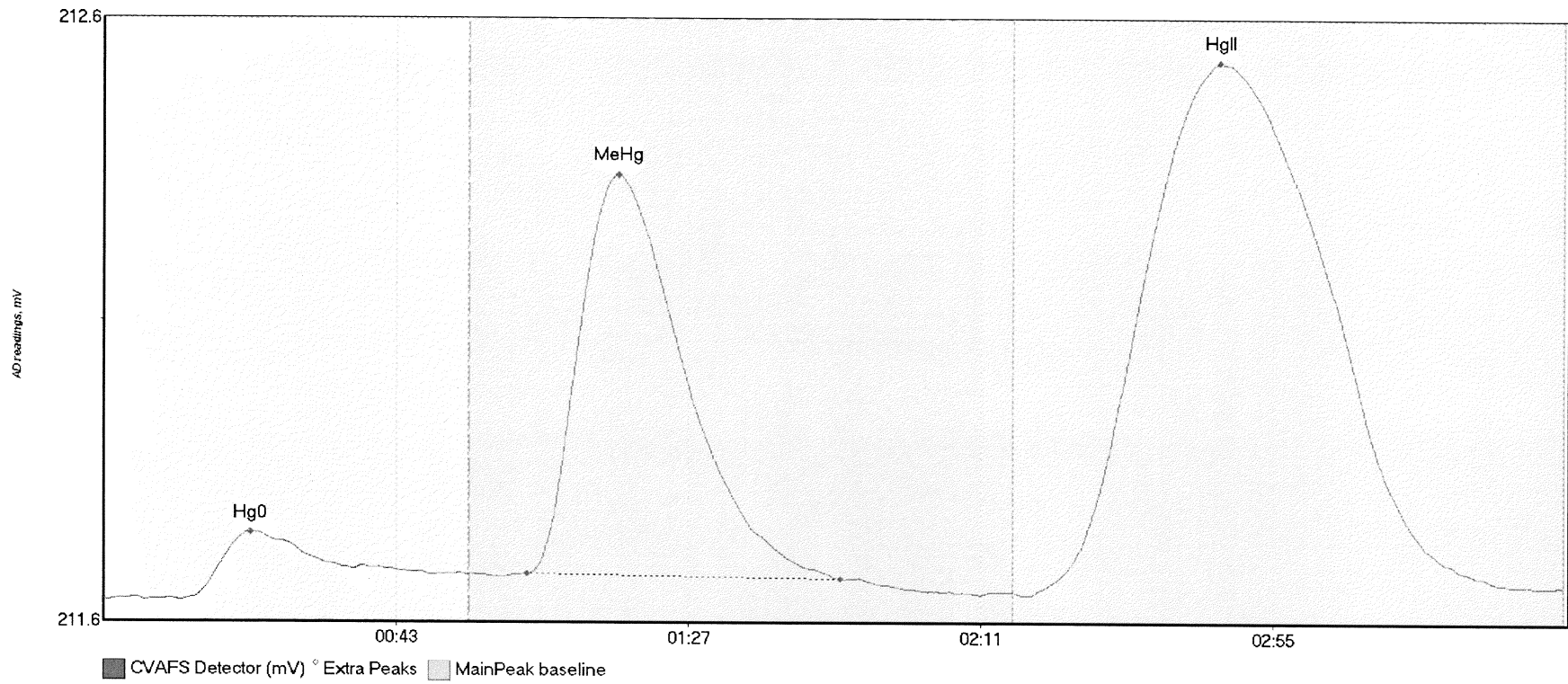
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BS1 Hg0	17.579	11.6	51.2	211.63	211.68	23.4	0.117	OK	211.6401	0.00	0.01	
F710421-BS1 MeH	748.685	62.6	127.2	211.68	211.67	77.8	3.907	OK	211.6401	0.00	0.01	
F710421-BS1 HgI	152.588	143.1	206.4	211.67	211.67	168.9	0.483	OK	211.6401	0.00	0.01	

#55: F710421-BSD1



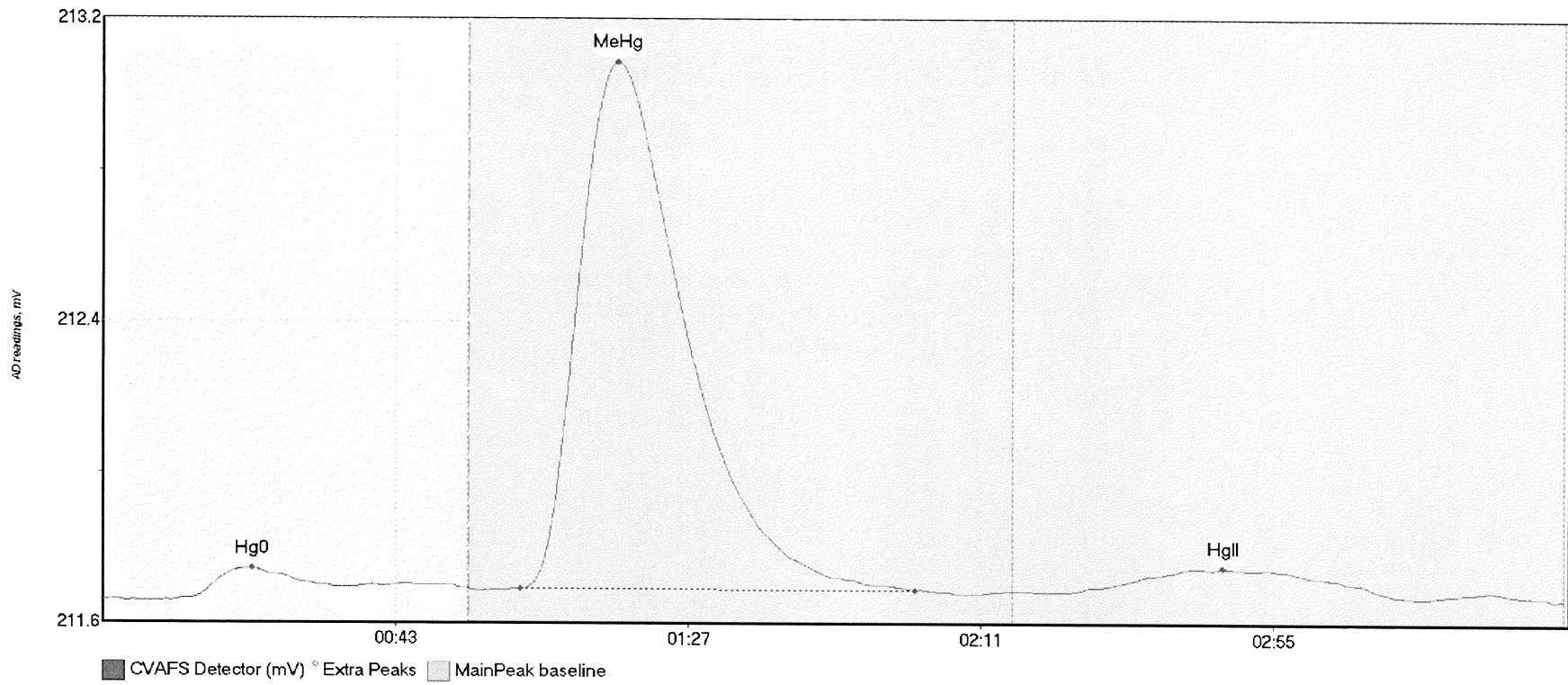
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BSD1 Hg	22.783	4.6	53.2	211.63	211.67	22.5	0.151	OK	211.6252	0.00	0.03	
F710421-BSD1 Me	801.005	61.9	125.6	211.67	211.68	77.4	4.238	OK	211.6252	0.00	0.03	
F710421-BSD1 Hg	145.792	141.4	209.7	211.67	211.66	168.3	0.469	OK	211.6252	0.00	0.03	

#56: F710421-DUP1



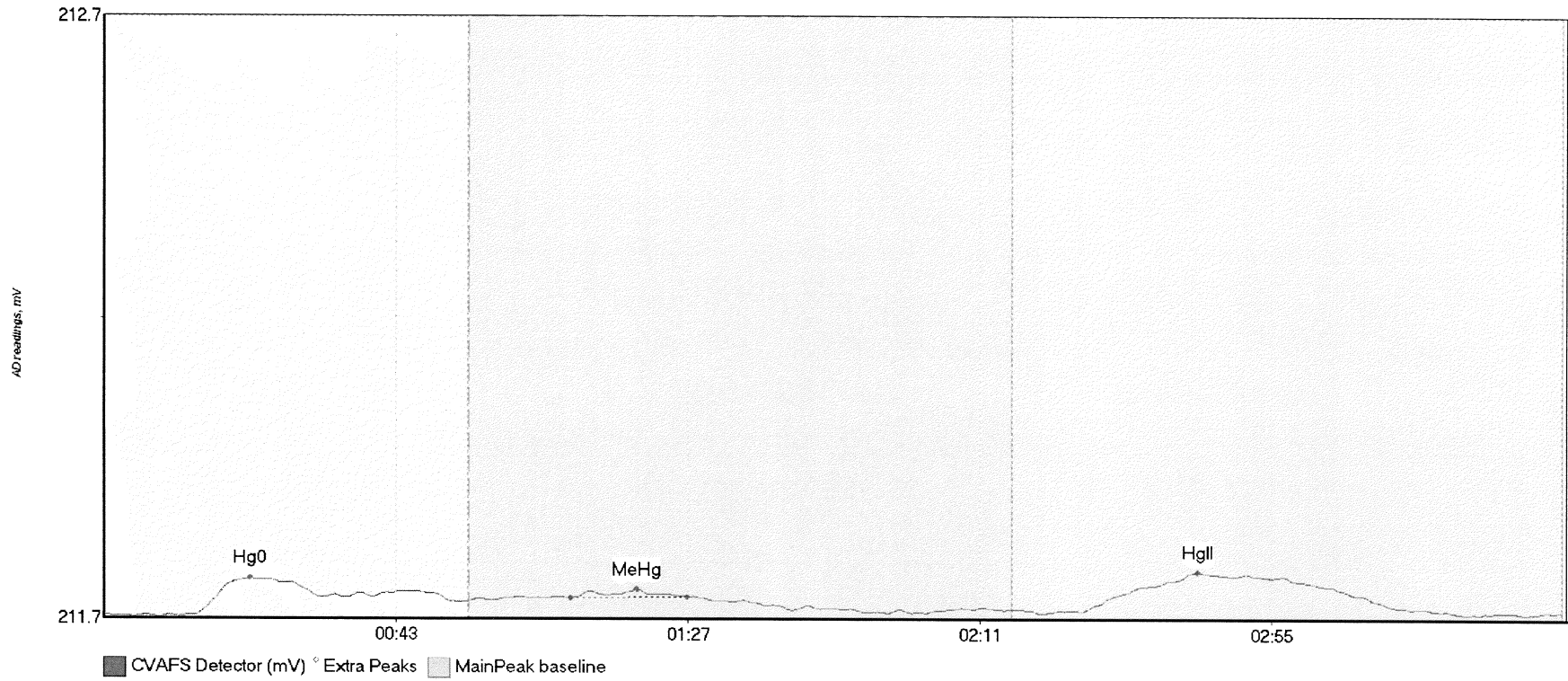
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-DUP1 Hg	15.733	13.3	49.3	211.64	211.68	22.2	0.111	OK	211.6369	0.00	0.02	
F710421-DUP1 Me	123.296	63.7	110.9	211.68	211.67	77.5	0.676	OK	211.6369	0.00	0.02	
F710421-DUP1 Hg	282.212	139.3	216.1	211.65	211.66	168.1	0.903	OK	211.6369	0.00	0.02	

#57: SEQ-CCV4



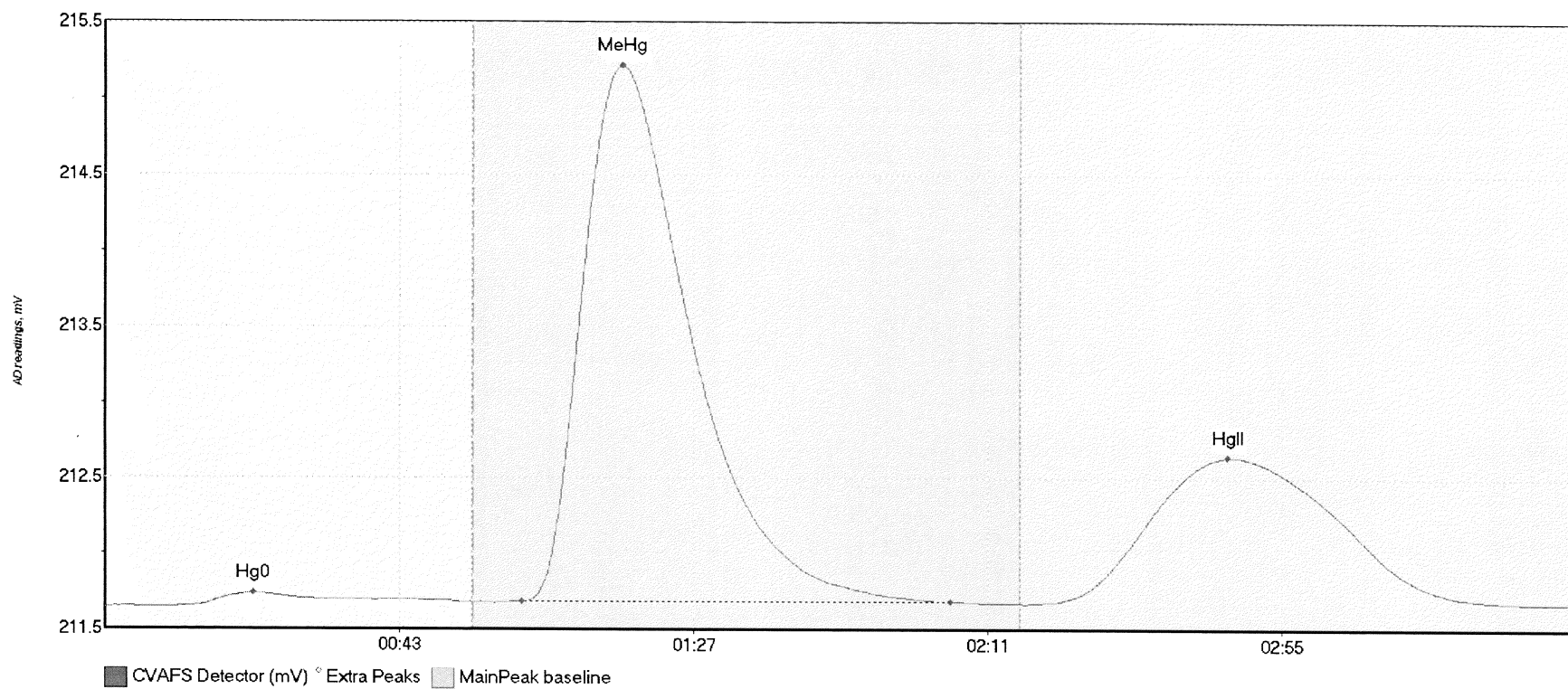
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	12.313	13.0	55.0	211.66	211.68	22.4	0.080	CT	211.6535	0.00	0.00	
SEQ-CCV4 MeHg	259.543	62.7	122.1	211.68	211.68	77.3	1.400	OK	211.6535	0.00	0.00	
SEQ-CCV4 HgII	20.361	146.1	194.3	211.68	211.67	168.5	0.063	OK	211.6535	0.00	0.00	

#58: SEQ-CCB4



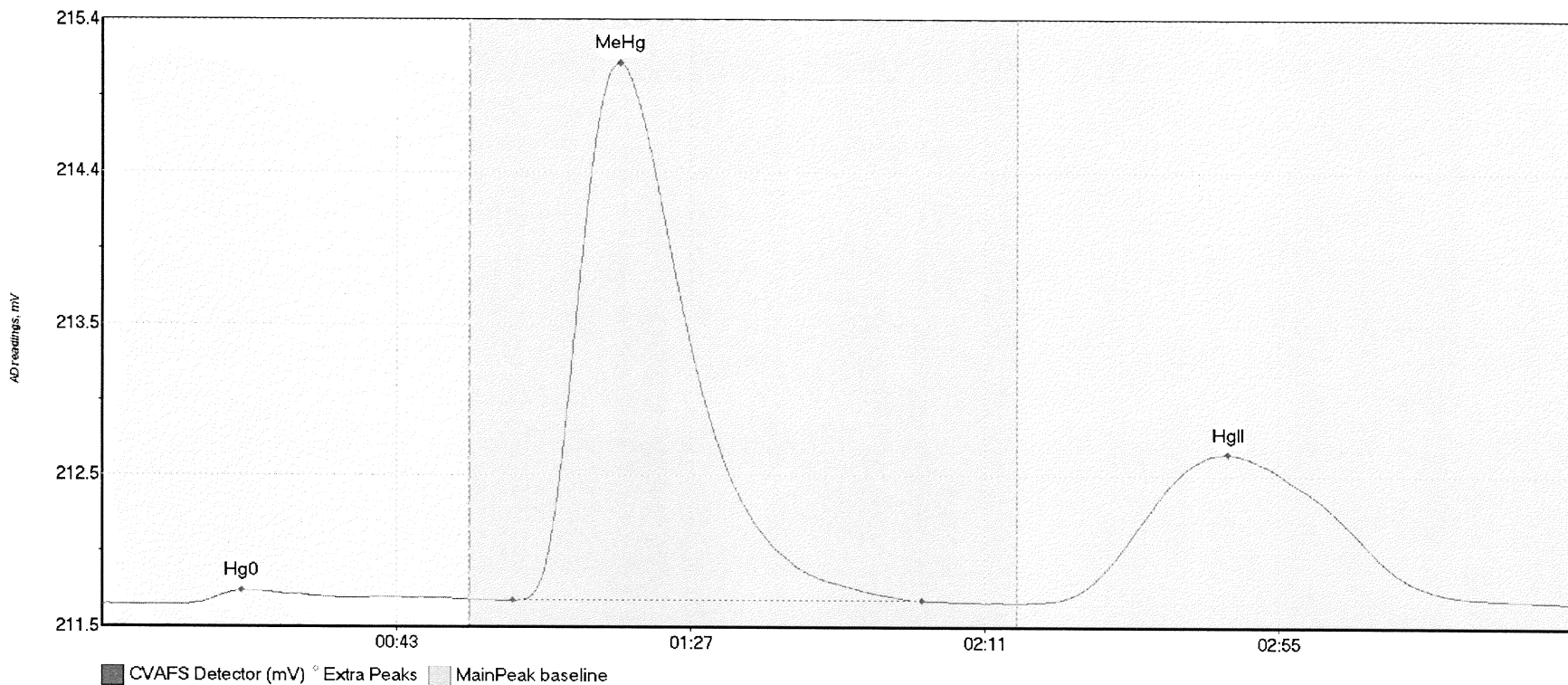
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	11.146	13.8	53.7	211.66	211.68	22.0	0.060	OK	211.6598	0.00	0.01	
SEQ-CCB4 MeHg	1.207	70.3	87.9	211.69	211.69	80.3	0.014	OK	211.6598	0.00	0.01	
SEQ-CCB4 HgII	18.040	147.5	194.5	211.67	211.67	164.9	0.065	OK	211.6598	0.00	0.01	

#59: F710421-MS1



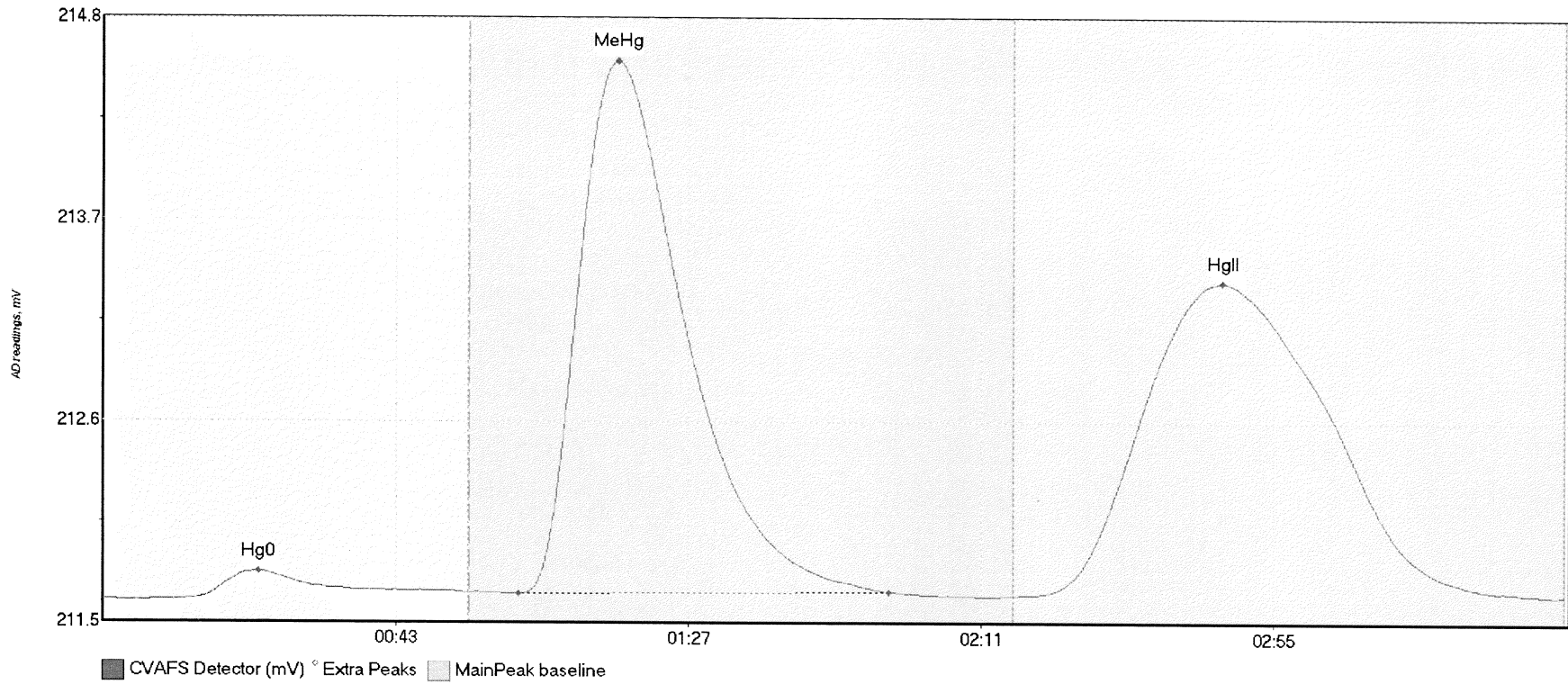
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MS1 Hg0	14.105	12.0	53.4	211.66	211.69	22.2	0.087	OK	211.6589	0.00	0.02	
F710421-MS1 MeH	661.356	62.3	126.4	211.69	211.69	77.3	3.520	OK	211.6589	0.00	0.02	
F710421-MS1 HgI	305.834	137.7	212.4	211.68	211.68	167.9	0.970	OK	211.6589	0.00	0.02	

#60: F710421-MSD1



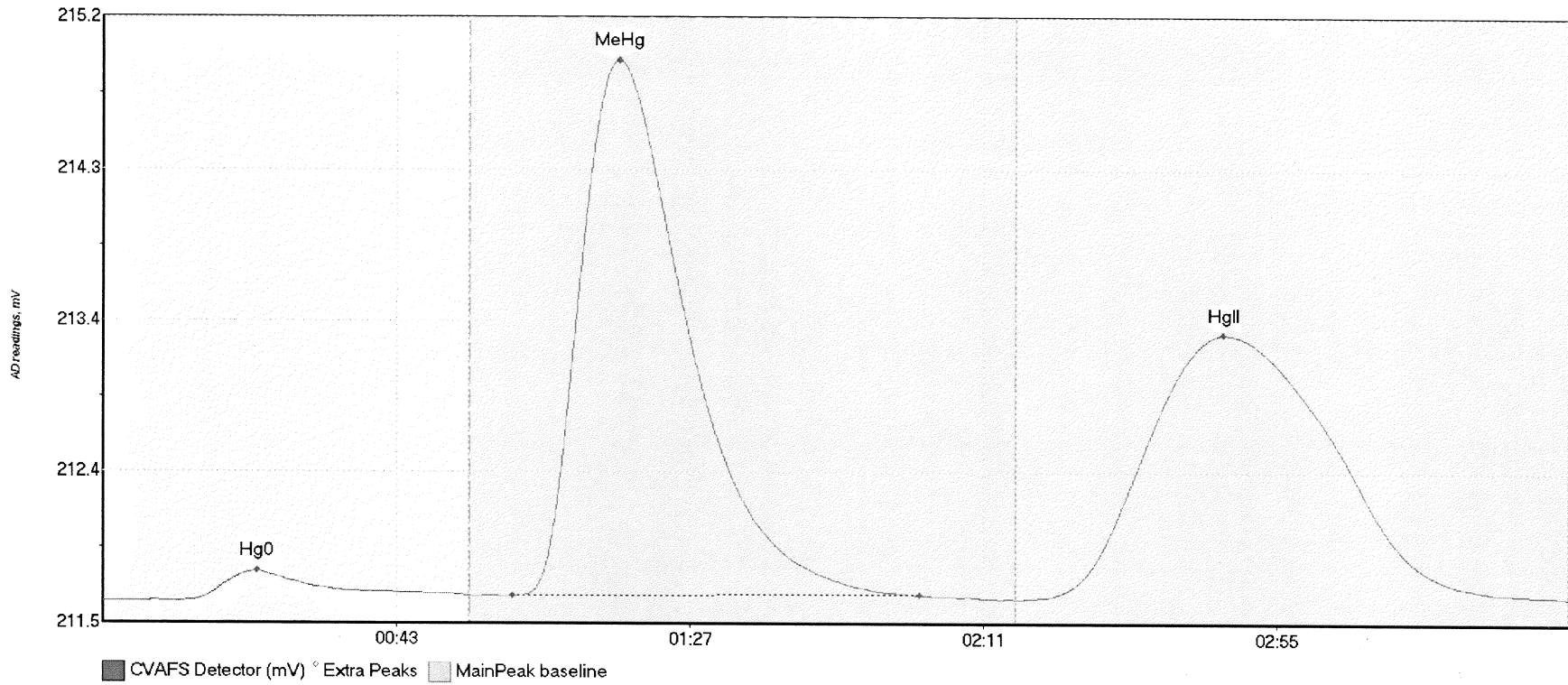
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MSD1 Hg	15.163	11.9	54.9	211.65	211.69	20.8	0.089	OK	211.6596	0.00	0.02	
F710421-MSD1 Me	645.432	61.5	122.6	211.68	211.68	77.4	3.437	OK	211.6596	0.00	0.02	
F710421-MSD1 Hg	302.804	137.6	219.5	211.67	211.67	168.4	0.957	OK	211.6596	0.00	0.02	

#61: F710421-MS2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MS2 Hg0	21.643	10.7	54.9	211.65	211.69	23.4	0.152	OK	211.6515	0.00	0.02	
F710421-MS2 MeH	526.770	62.4	118.2	211.68	211.69	77.4	2.854	OK	211.6515	0.00	0.02	
F710421-MS2 HgI	525.813	140.1	216.9	211.68	211.68	168.3	1.678	OK	211.6515	0.00	0.02	

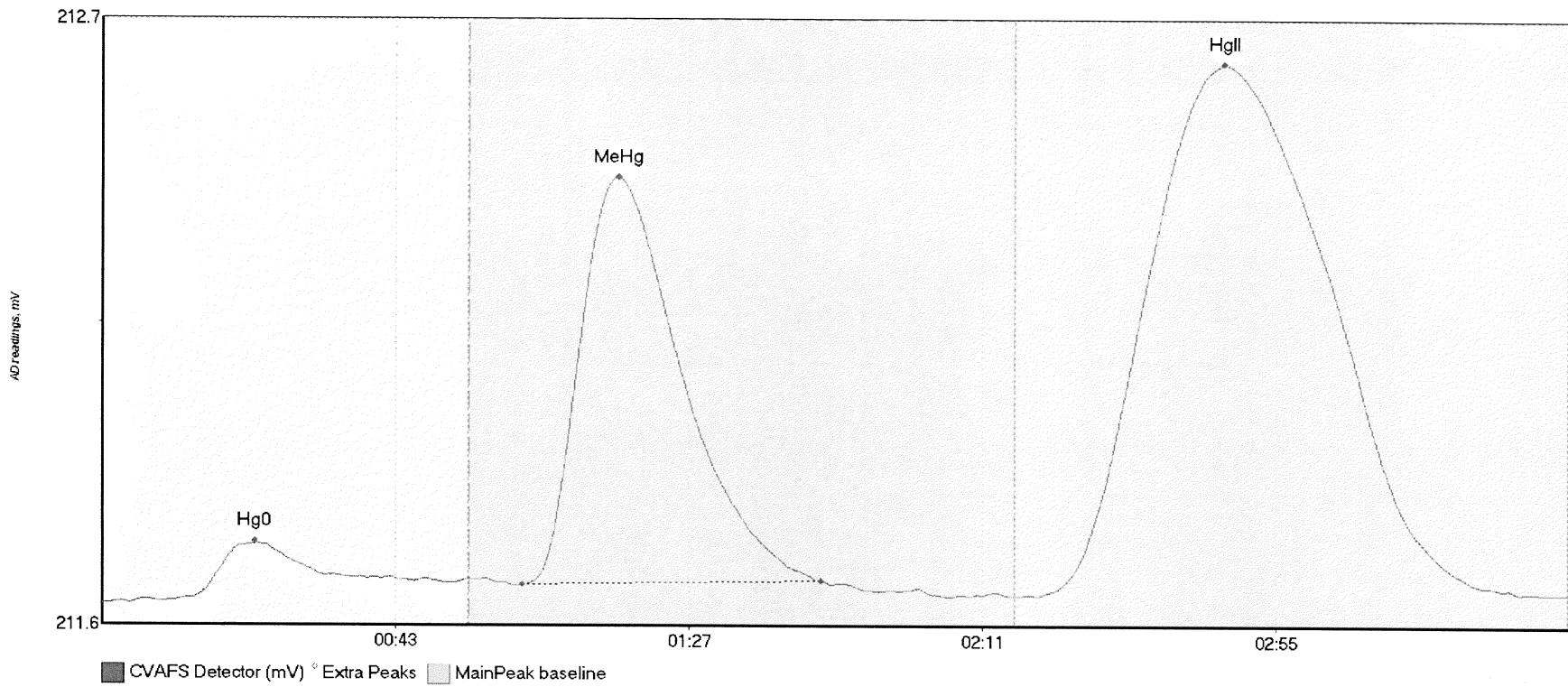
#62: F710421-MSD2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MSD2 Hg	26.881	12.1	55.0	211.65	211.68	23.1	0.180	CT	211.6442	0.00	0.03	
F710421-MSD2 Me	605.330	61.4	122.4	211.67	211.68	77.4	3.256	OK	211.6442	0.00	0.03	
F710421-MSD2 Hg	508.431	137.4	219.6	211.66	211.67	168.0	1.615	OK	211.6442	0.00	0.03	

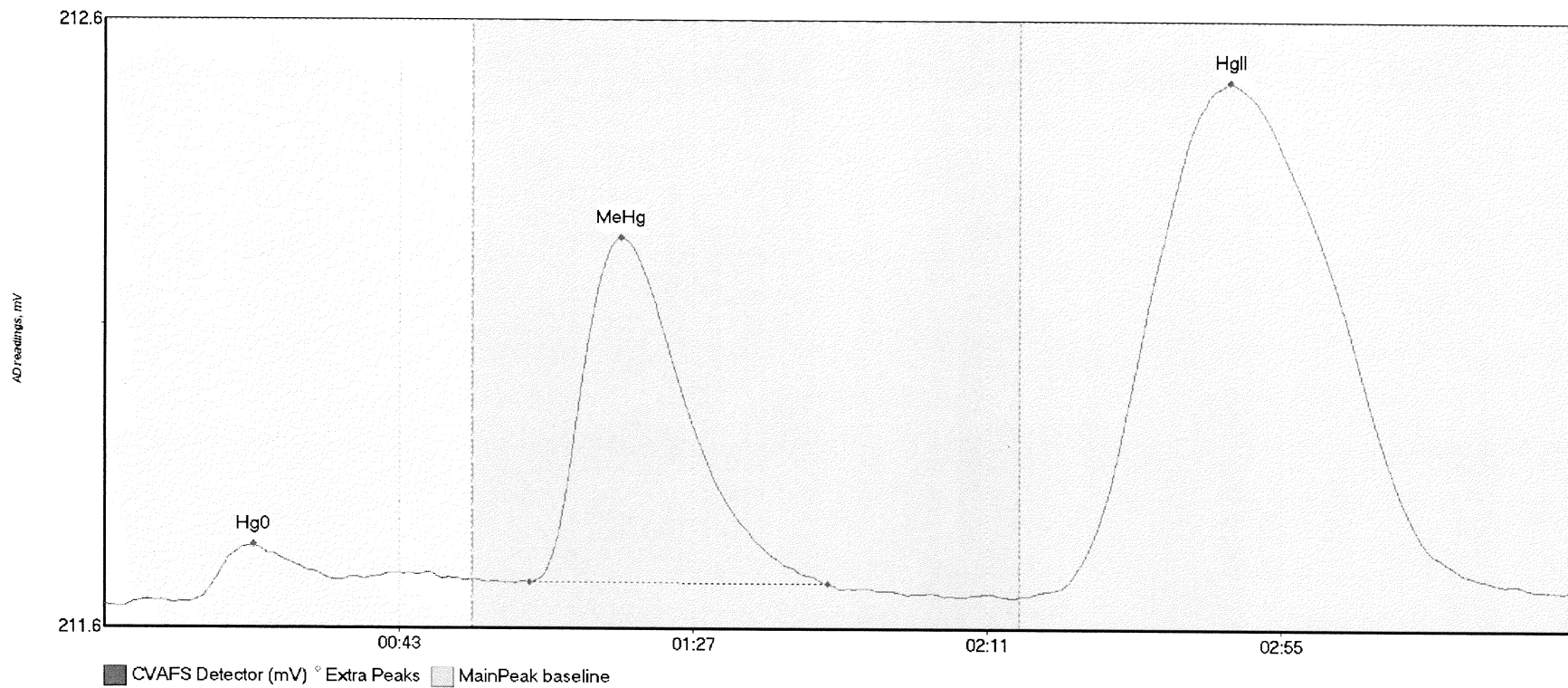
017

#63: 1708118-01



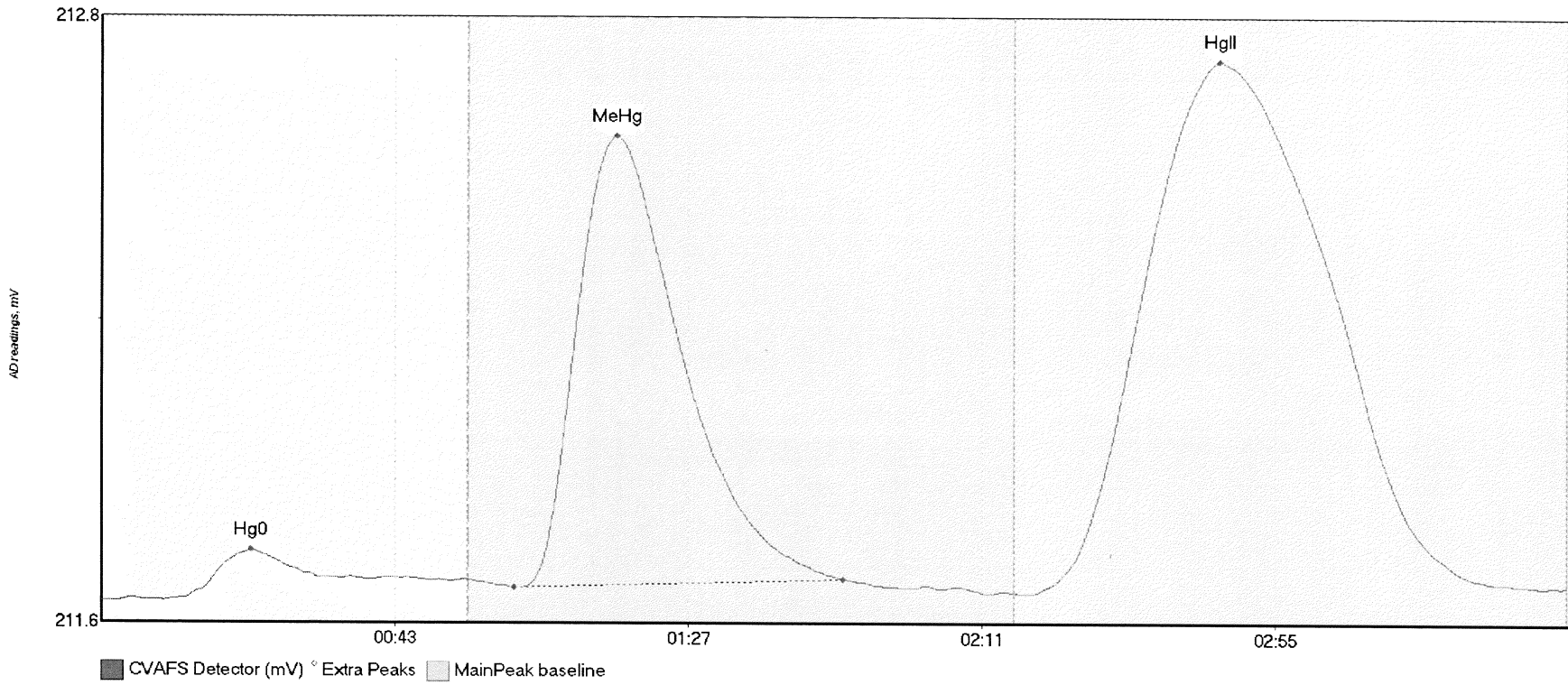
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-01 Hg0	14.445	9.5	51.7	211.64	211.68	22.9	0.105	OK	211.6387	0.00	0.02	
1708118-01 MeHg	129.027	63.0	107.8	211.67	211.68	77.4	0.737	OK	211.6387	0.00	0.02	017
1708118-01 HgII	298.983	140.3	216.3	211.65	211.66	168.2	0.964	OK	211.6387	0.00	0.02	

#64: 1708118-02



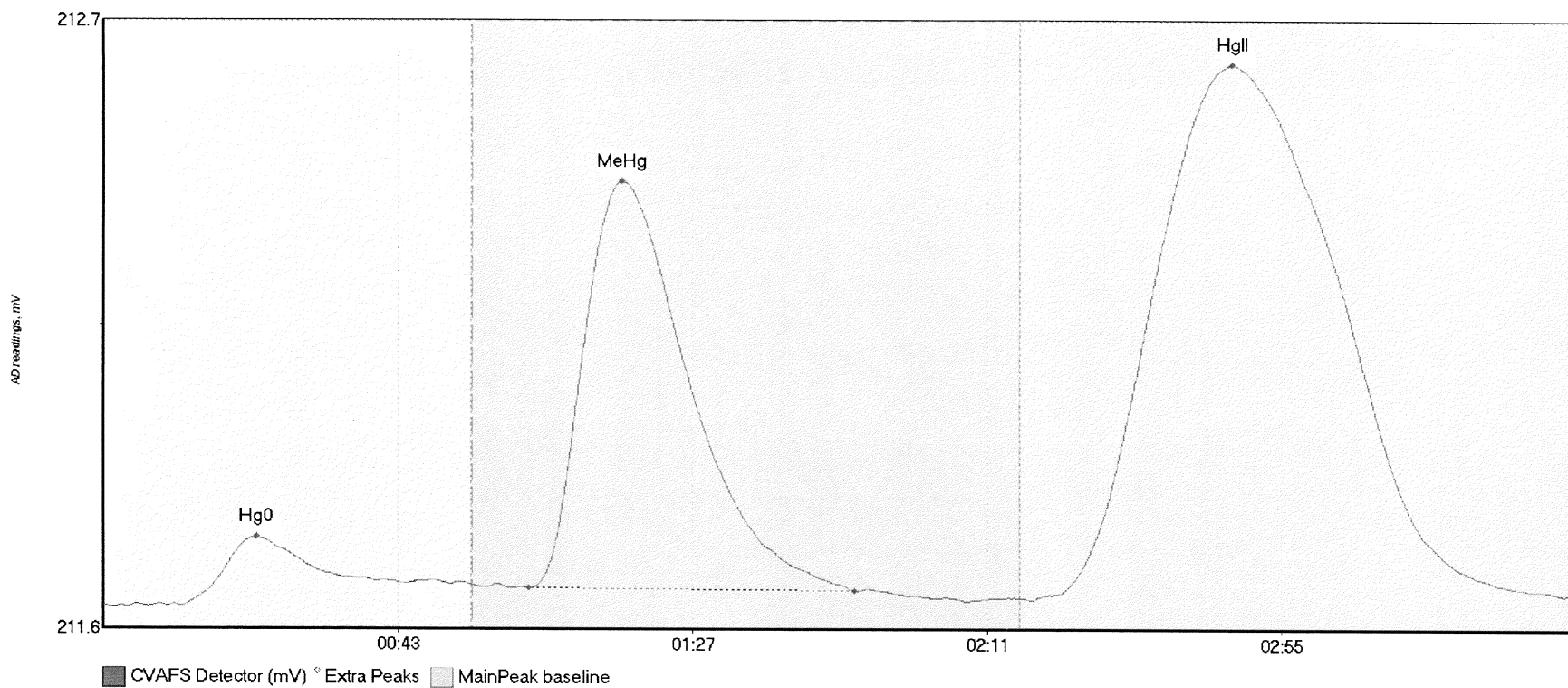
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-02 Hg0	13.315	10.5	53.9	211.63	211.67	22.3	0.095	OK	211.6255	0.00	0.03	
1708118-02 MeHg	100.642	63.6	108.2	211.66	211.66	77.2	0.567	OK	211.6255	0.00	0.03	
1708118-02 HgII	264.955	138.3	218.1	211.64	211.65	168.3	0.847	OK	211.6255	0.00	0.03	

#65: 1708118-03



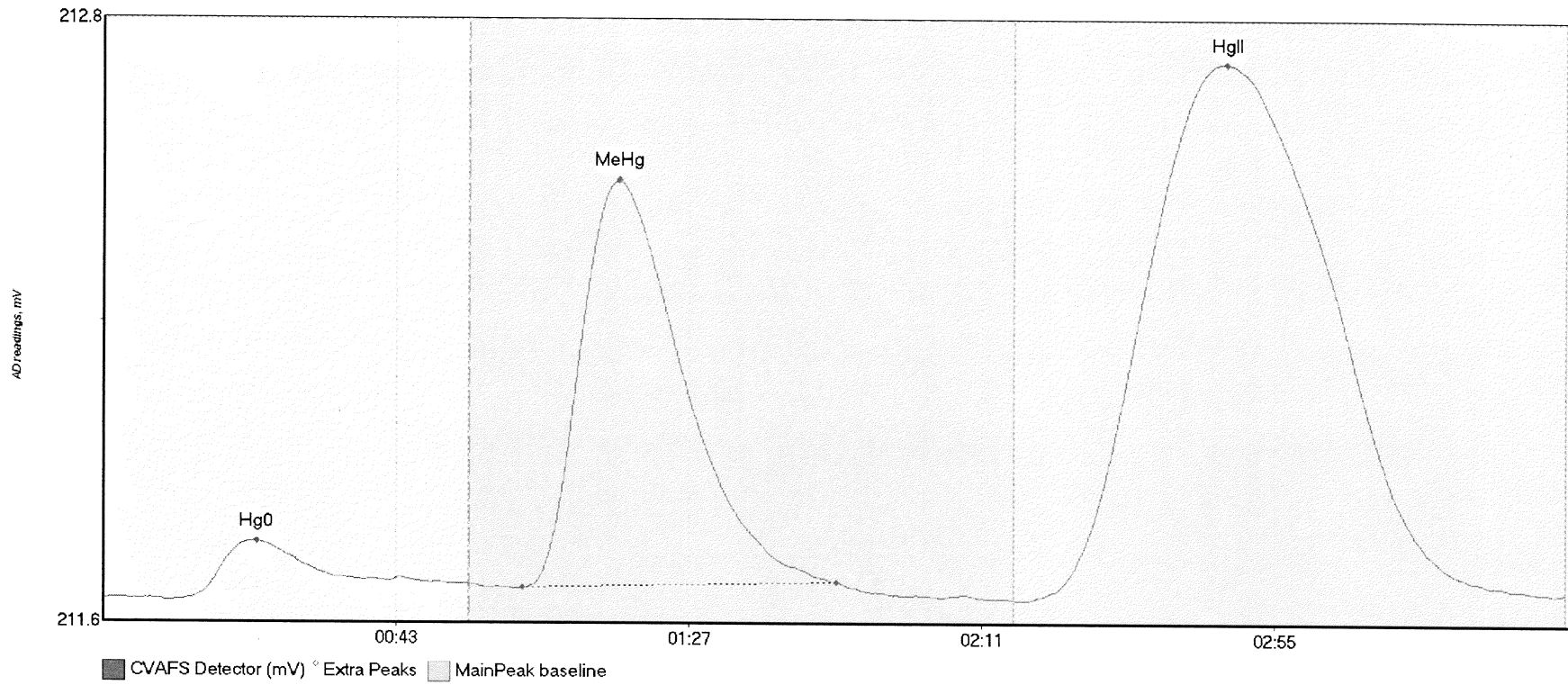
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-03 Hg0	13.022	11.0	52.3	211.62	211.65	22.4	0.096	OK	211.6130	0.00	0.03	
1708118-03 MeHg	161.906	61.9	111.1	211.64	211.66	77.3	0.900	OK	211.6130	0.00	0.03	
1708118-03 HgII	330.356	139.9	216.3	211.63	211.64	167.6	1.059	OK	211.6130	0.00	0.03	

#66: 1708118-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-04 Hg0	18.467	11.6	55.0	211.61	211.65	22.9	0.127	CT	211.6123	0.00	0.02	
1708118-04 MeHg	136.807	63.5	112.2	211.64	211.64	77.4	0.747	OK	211.6123	0.00	0.02	
1708118-04 HgII	309.134	138.6	219.8	211.62	211.63	168.6	0.984	CT	211.6123	0.00	0.02	

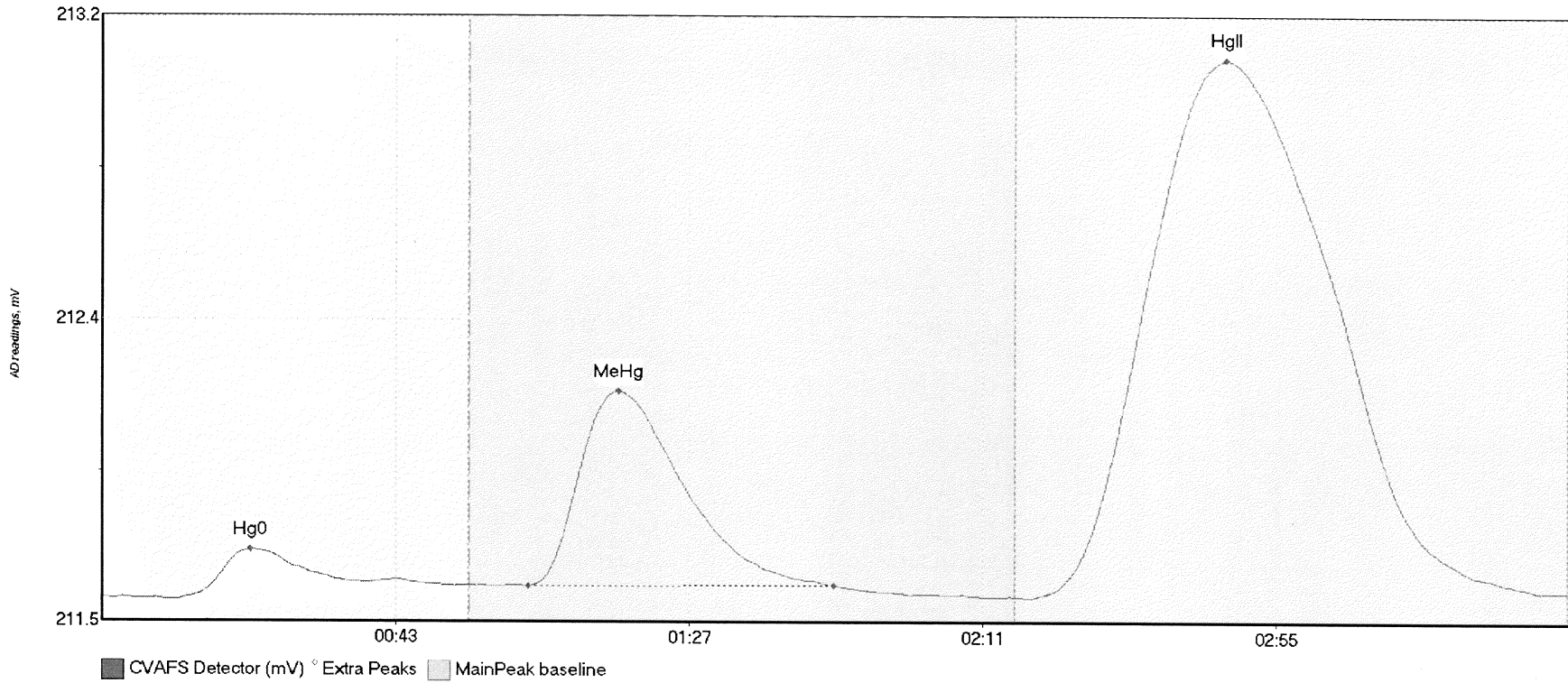
#67: 1708118-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-05 Hg0	17.461	11.1	55.0	211.61	211.64	23.0	0.118	CT	211.6112	0.00	0.01	
1708118-05 MeHg	144.683	63.0	110.2	211.63	211.64	77.5	0.816	OK	211.6112	0.00	0.01	
1708118-05 HgII	339.111	138.9	218.1	211.61	211.62	168.8	1.075	OK	211.6112	0.00	0.01	

017

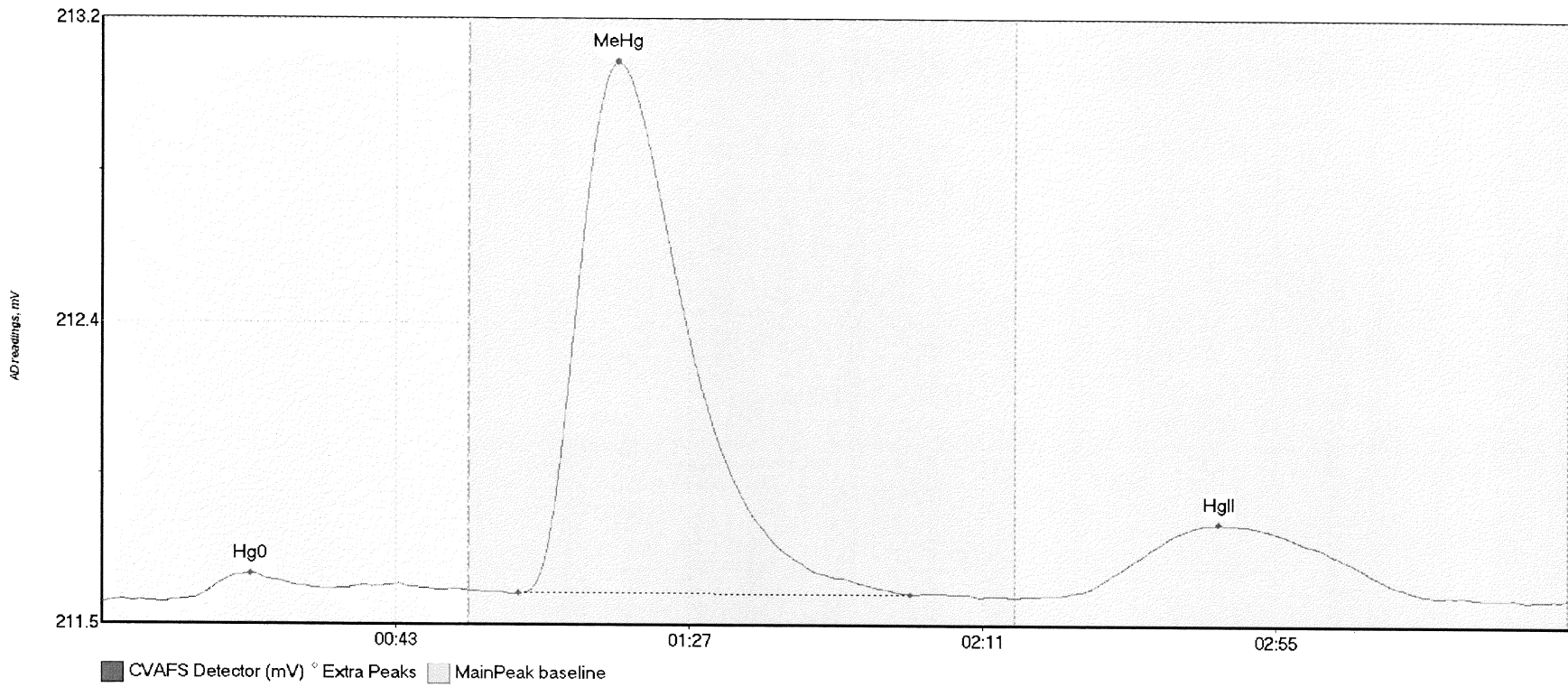
#68: 1708240-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-01 Hg0	19.749	11.2	52.8	211.60	211.64	22.3	0.137	OK	211.6101	0.00	0.02	
1708240-01 MeHg	96.482	63.9	109.7	211.64	211.64	77.5	0.540	OK	211.6101	0.00	0.02	
1708240-01 HgII	462.942	139.1	215.7	211.61	211.63	168.5	1.486	OK	211.6101	0.00	0.02	

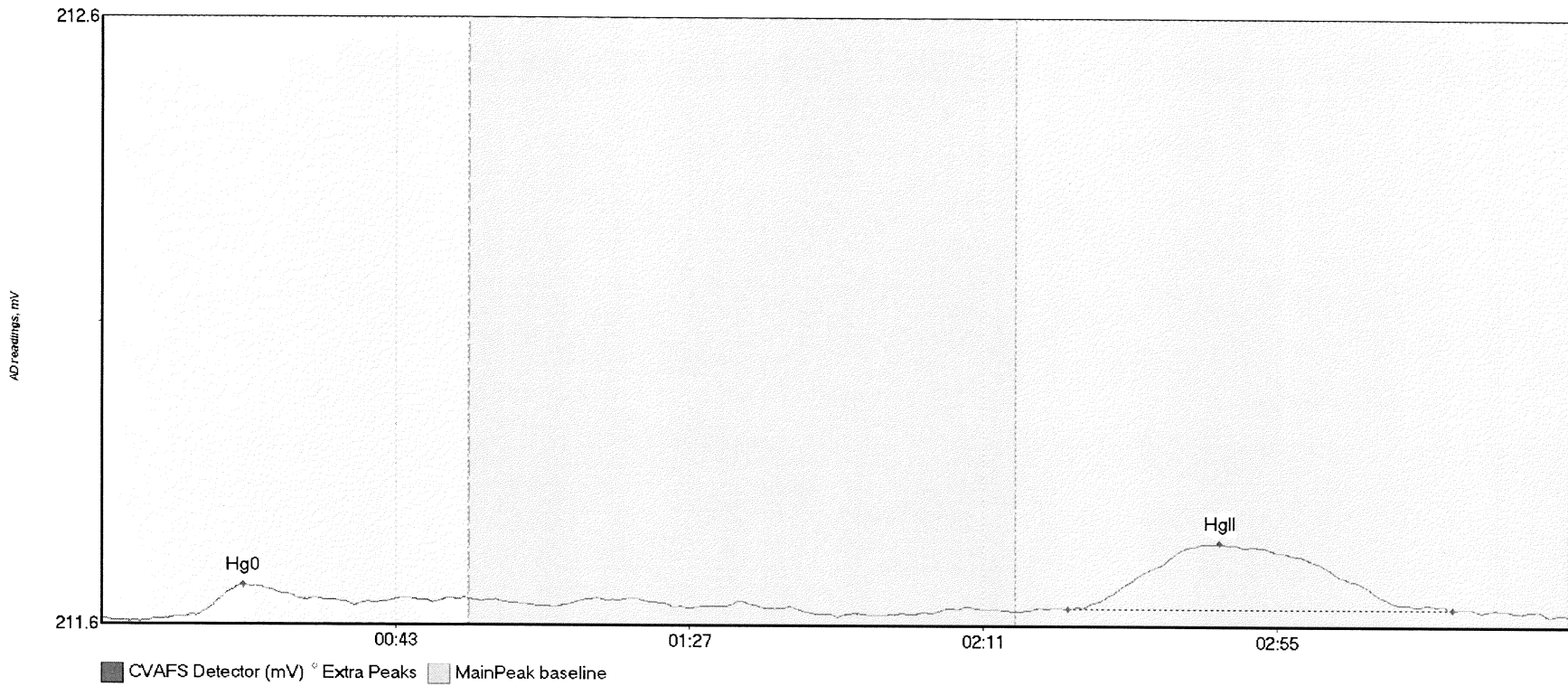
017

#69: SEQ-CCV5



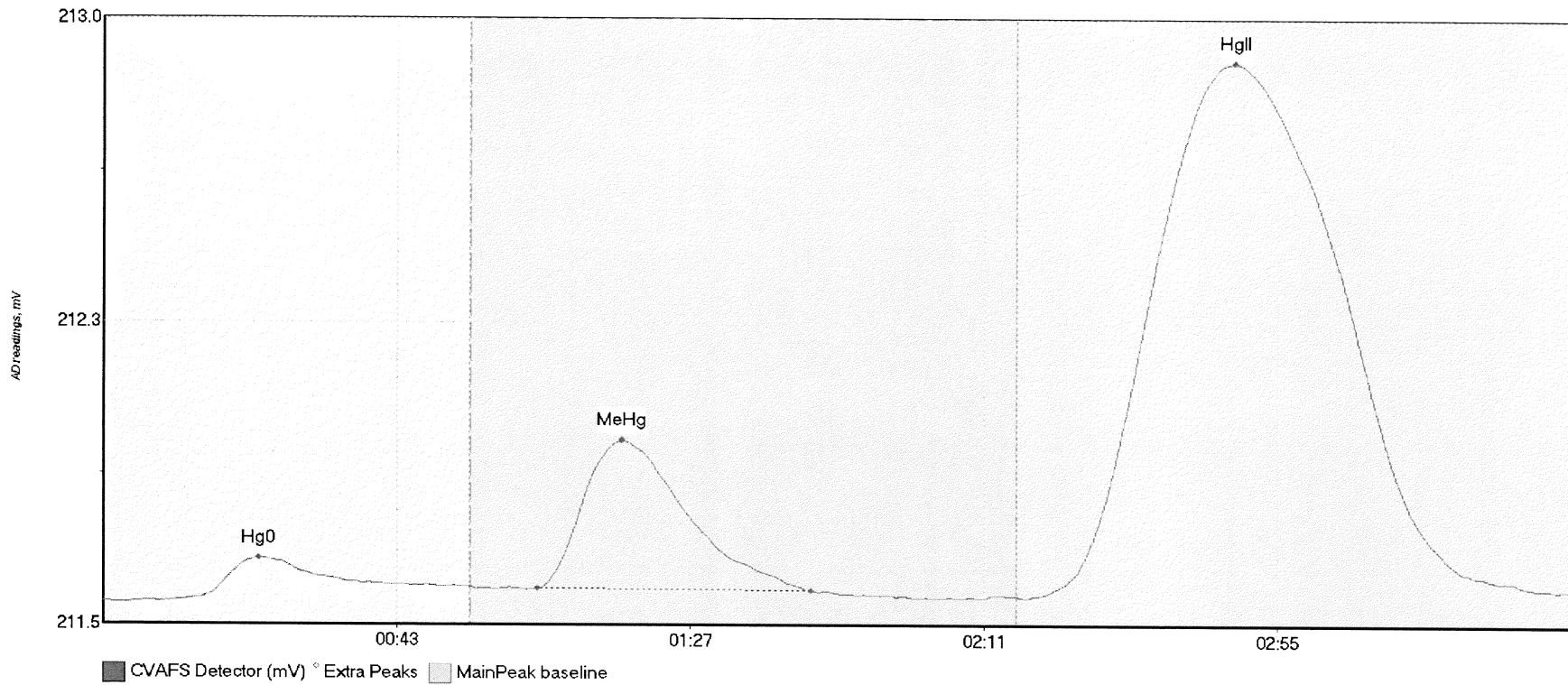
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	10.783	11.3	55.0	211.60	211.63	22.3	0.070	CT	211.6004	0.00	0.01	
SEQ-CCV5 MeHg	266.989	62.4	121.2	211.62	211.62	77.3	1.423	OK	211.6004	0.00	0.01	017
SEQ-CCV5 HgII	59.163	142.9	200.3	211.62	211.62	167.5	0.192	OK	211.6004	0.00	0.01	

#70: SEQ-CCB5



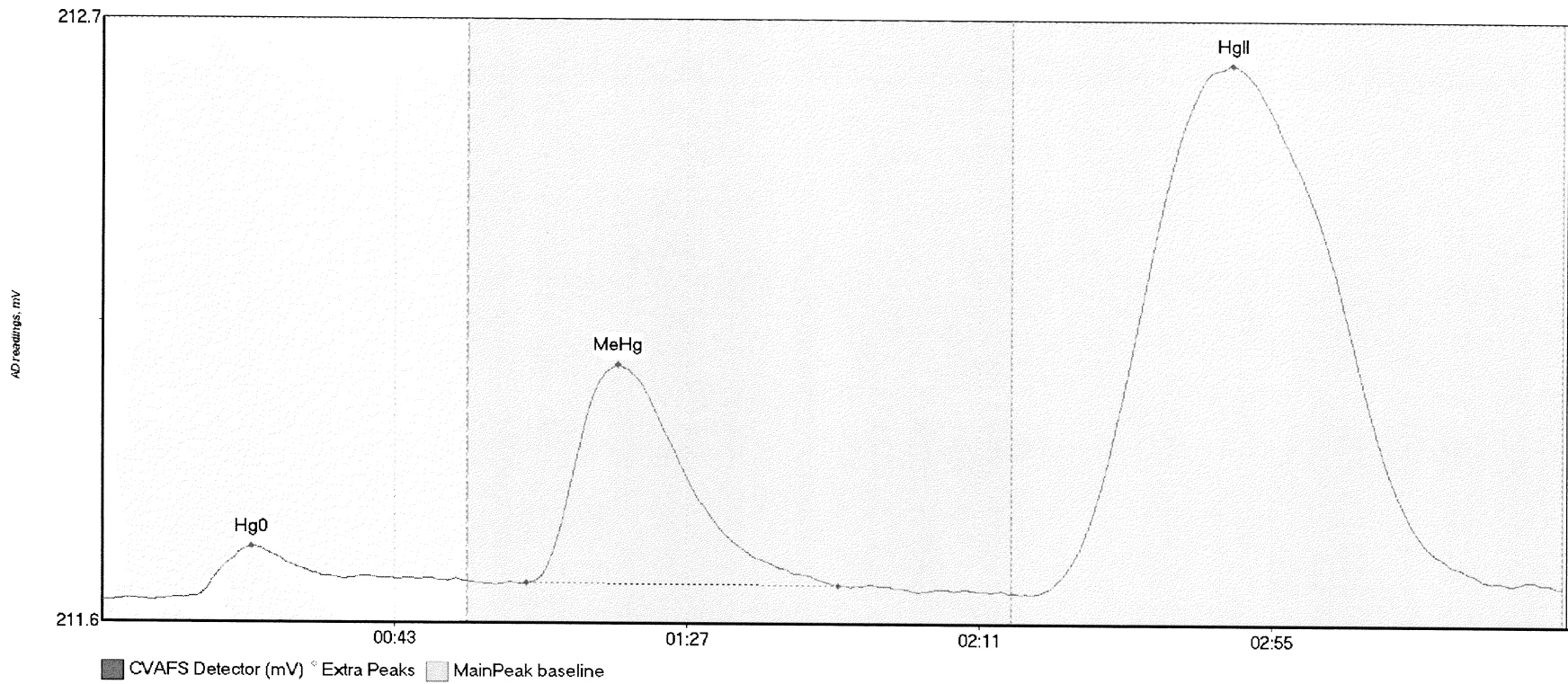
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	5.435	12.7	37.9	211.60	211.62	21.3	0.051	OK	211.5974	0.00	0.01	
SEQ-CCB5 HgII	32.870	144.8	202.4	211.62	211.62	167.4	0.109	OK	211.5974	0.00	0.01	017

#71: 1708240-02



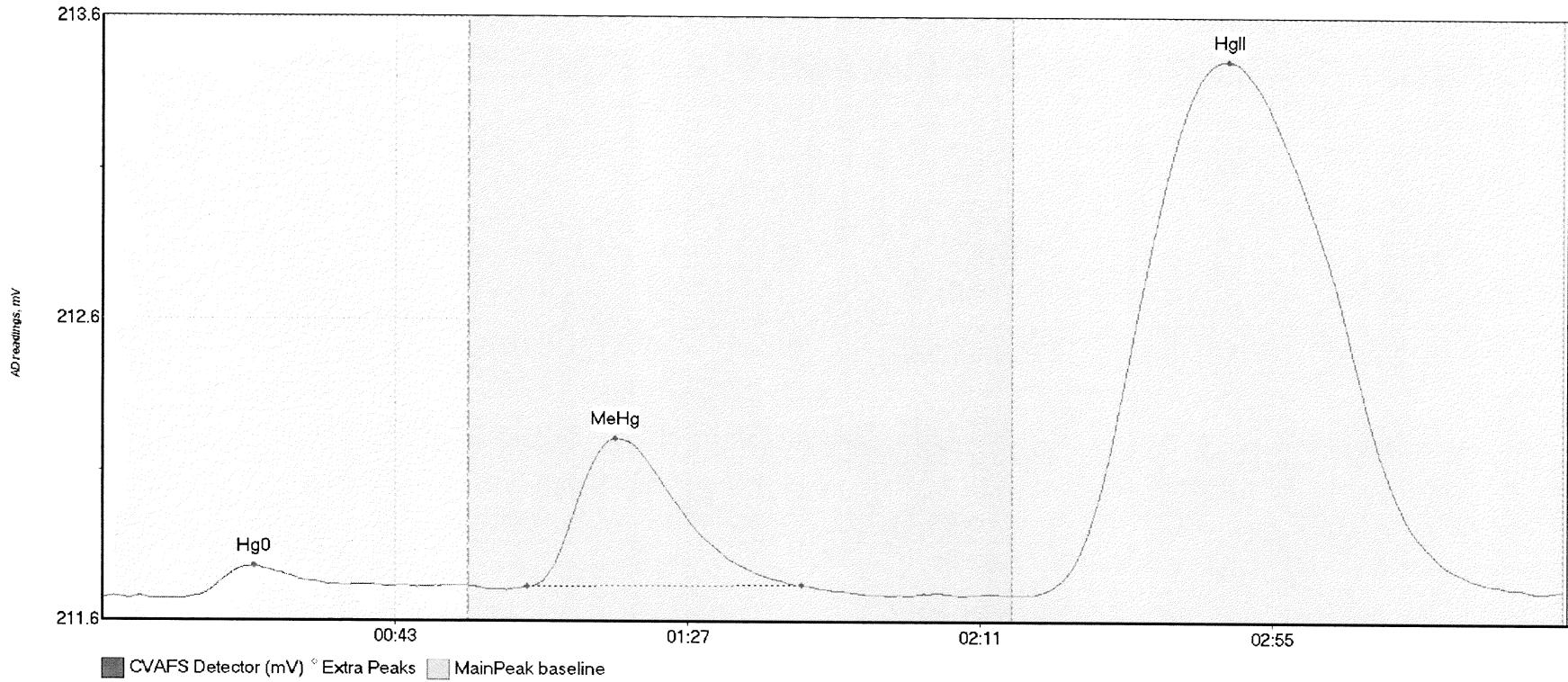
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-02 Hg0	14.961	9.9	55.0	211.61	211.64	23.3	0.103	CT	211.6051	0.00	0.03	
1708240-02 MeHg	63.878	65.0	106.0	211.64	211.63	77.8	0.357	OK	211.6051	0.00	0.03	
1708240-02 HgII	408.347	140.1	218.0	211.62	211.63	169.6	1.286	OK	211.6051	0.00	0.03	

#72: 1708240-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-03 Hg0	12.751	12.3	54.8	211.63	211.66	22.5	0.092	OK	211.6216	0.00	0.03	
1708240-03 MeHg	73.318	63.8	110.8	211.65	211.65	77.6	0.393	OK	211.6216	0.00	0.03	
1708240-03 HgII	306.070	140.5	219.8	211.64	211.65	170.0	0.956	CT	211.6216	0.00	0.03	

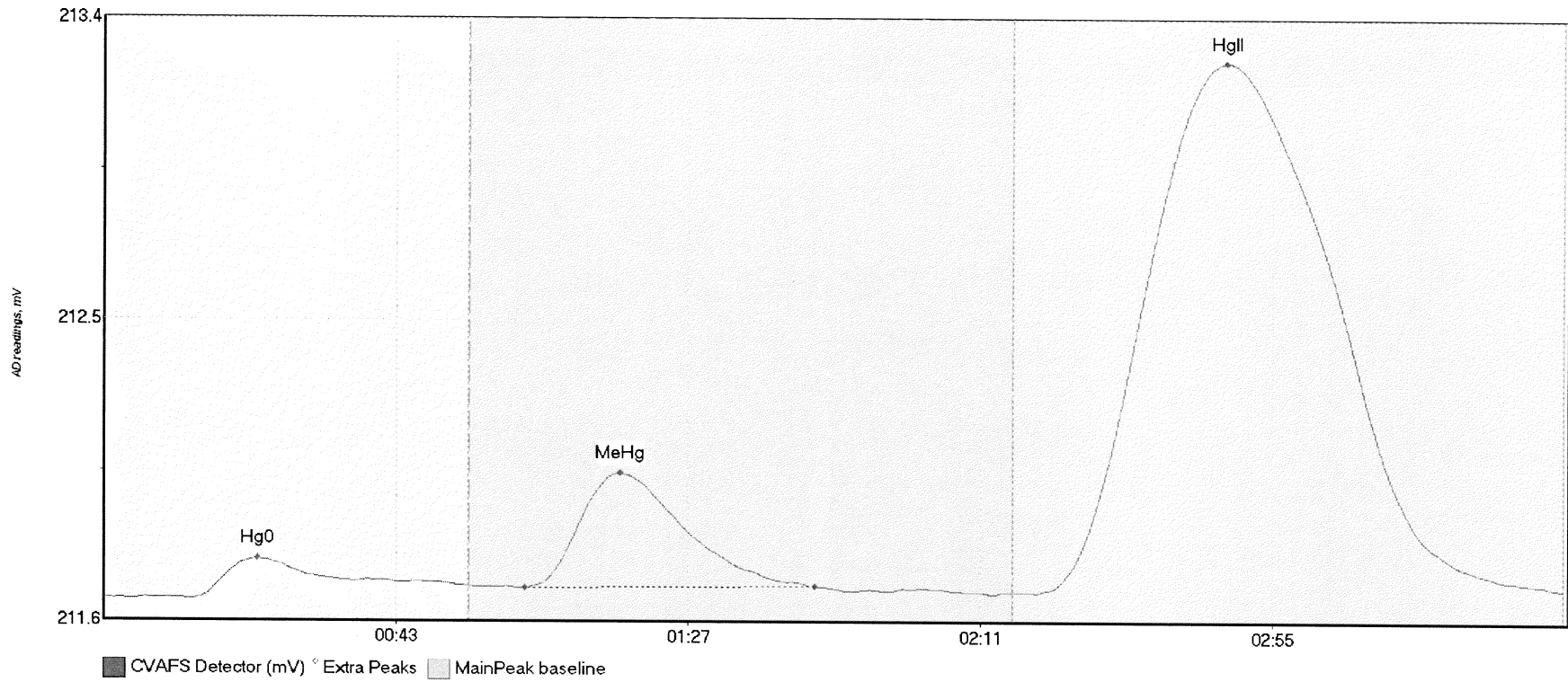
#73: 1708240-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-04 Hg0	13.215	12.2	47.2	211.64	211.68	22.9	0.108	OK	211.6406	0.00	0.03	
1708240-04 MeHg	88.064	63.8	105.1	211.68	211.68	77.2	0.507	OK	211.6406	0.00	0.03	
1708240-04 HgII	578.627	140.0	217.2	211.65	211.66	169.4	1.821	OK	211.6406	0.00	0.03	

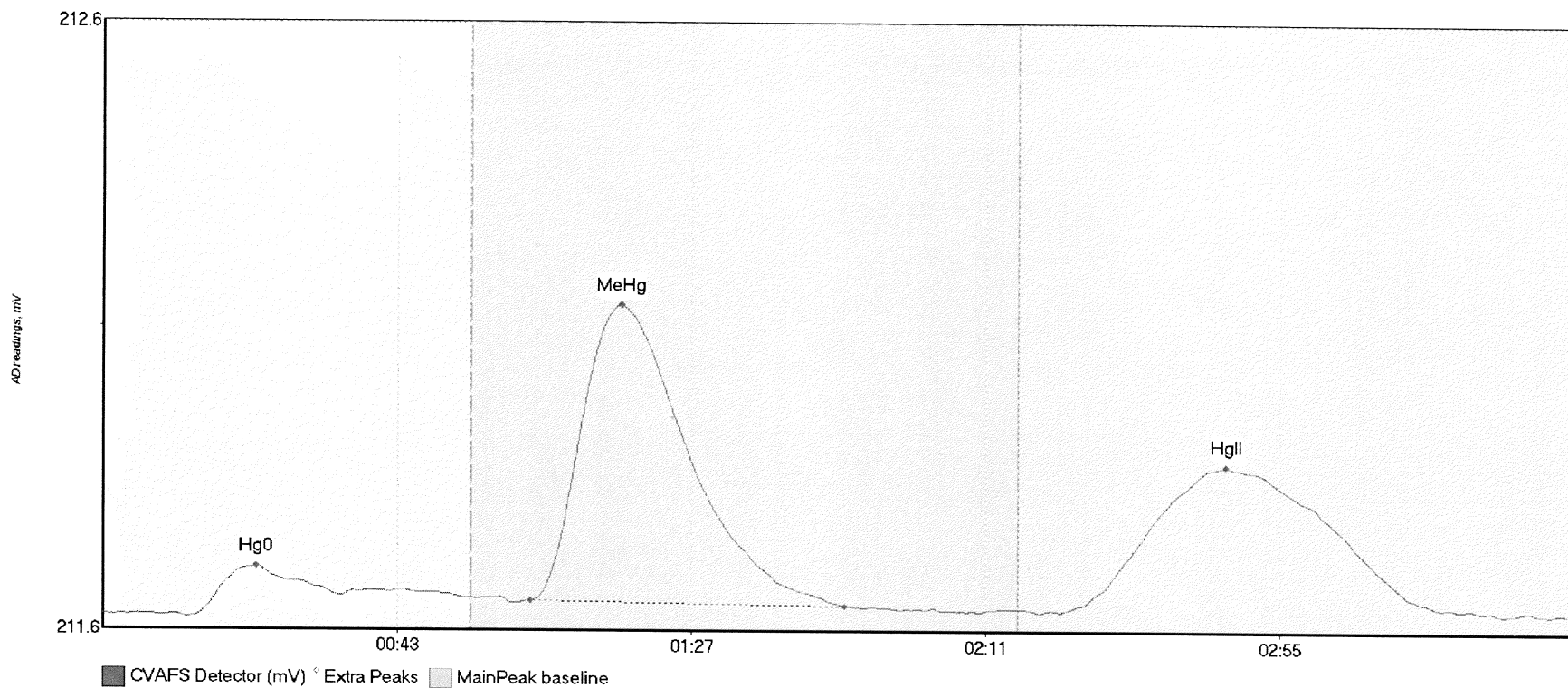
017

#74: 1708240-05



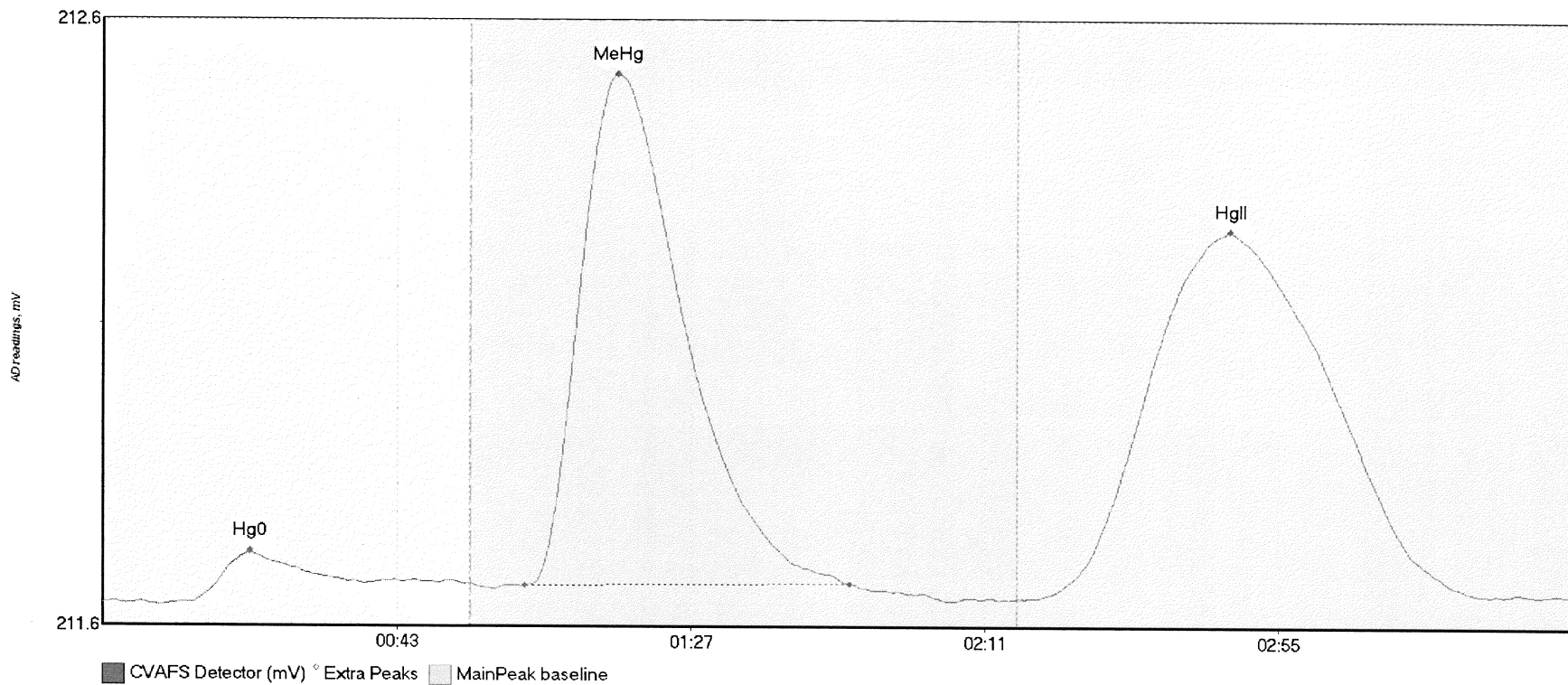
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-05 Hg0	18.780	12.9	55.0	211.64	211.69	23.1	0.121	CT	211.6465	0.00	0.03	
1708240-05 MeHg	61.495	63.4	107.0	211.68	211.68	77.7	0.342	OK	211.6465	0.00	0.03	
1708240-05 HgII	501.249	140.3	219.8	211.66	211.68	169.0	1.583	CT	211.6465	0.00	0.03	

#75: 1708241-01



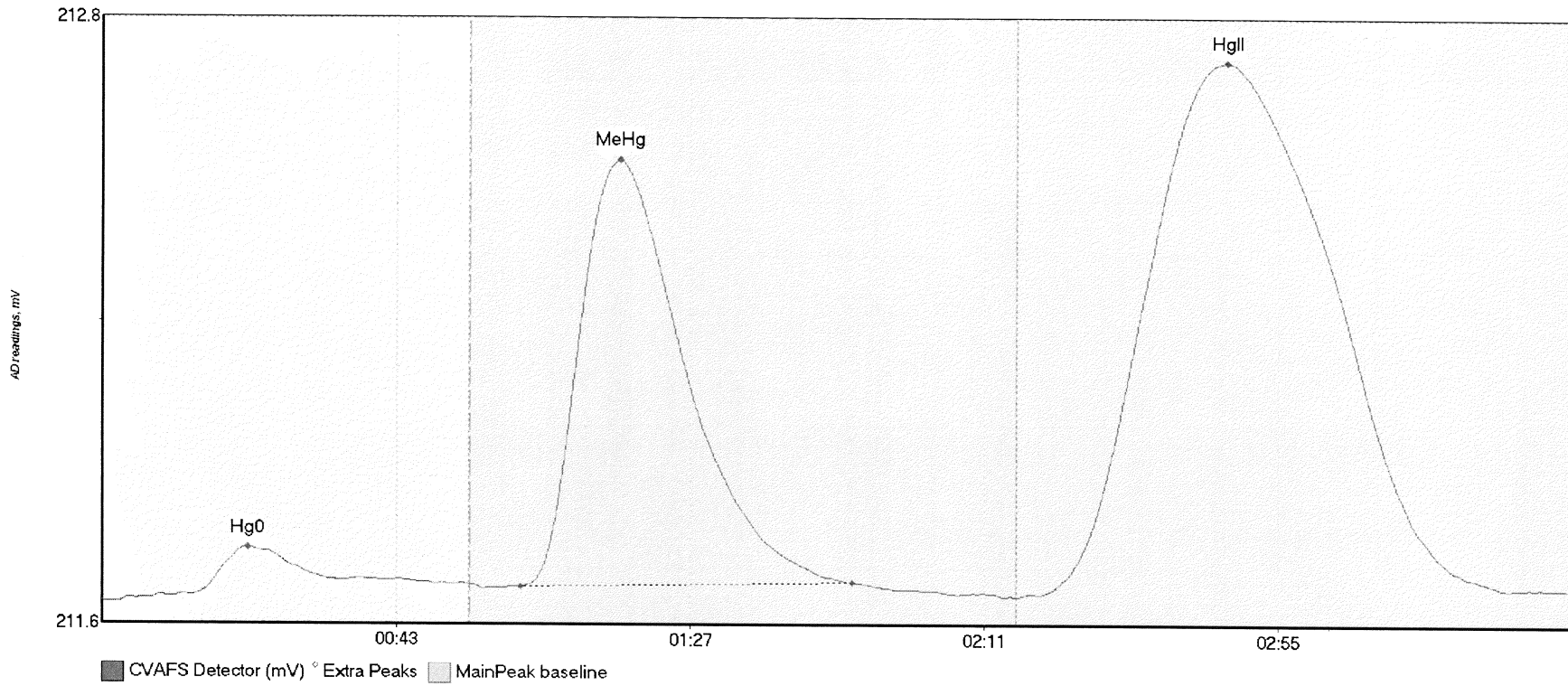
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-01 Hg0	12.979	12.6	54.1	211.65	211.69	22.9	0.085	OK	211.6581	0.00	0.00	
1708241-01 MeHg	89.653	63.8	110.9	211.68	211.67	77.5	0.487	OK	211.6581	0.00	0.00	
1708241-01 HgII	70.497	143.3	200.2	211.67	211.67	167.9	0.240	OK	211.6581	0.00	0.00	

#76: 1708241-02



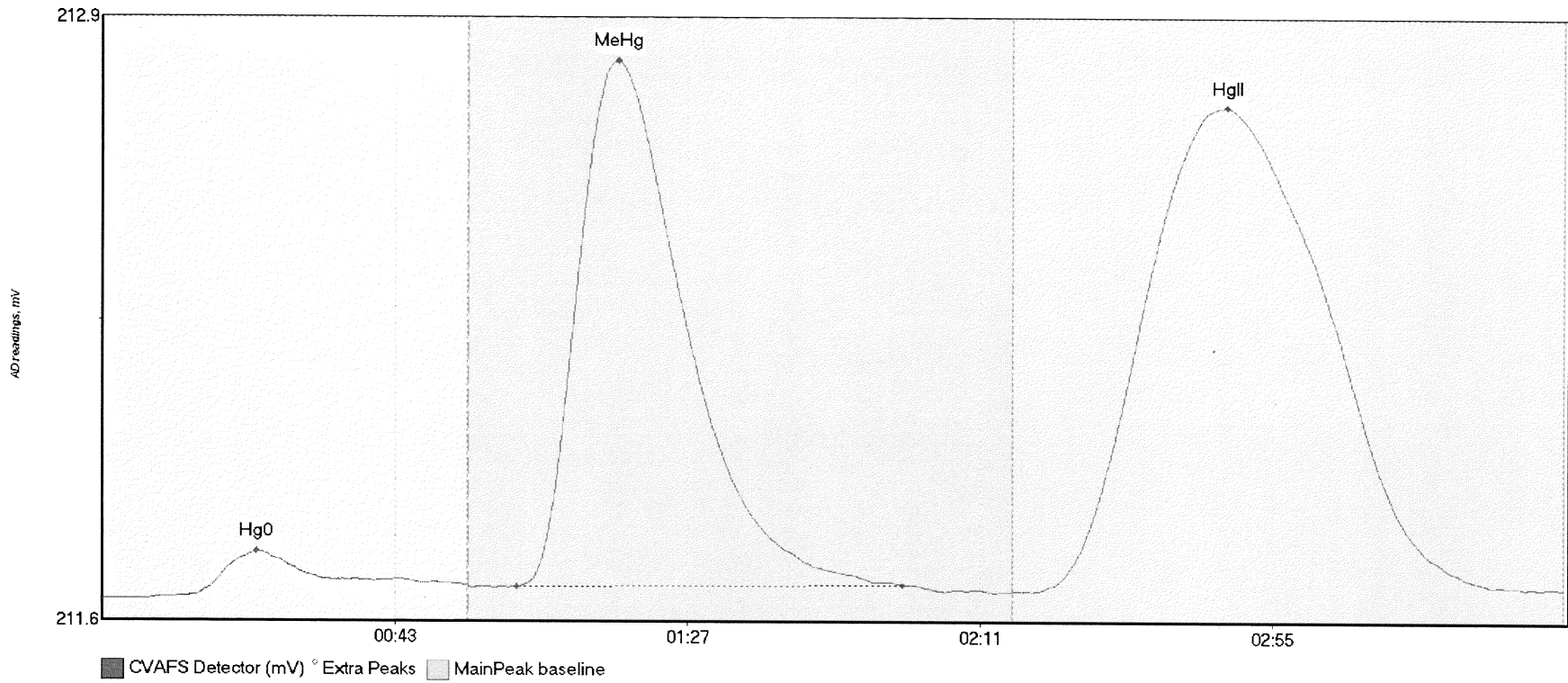
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-02 Hg0	11.598	12.9	54.1	211.66	211.69	22.0	0.082	OK	211.6556	0.00	0.01	
1708241-02 MeHg	151.153	63.1	111.7	211.68	211.69	77.0	0.844	OK	211.6556	0.00	0.01	
1708241-02 HgII	185.532	139.9	214.8	211.66	211.67	168.7	0.606	OK	211.6556	0.00	0.01	

#77: 1708241-03



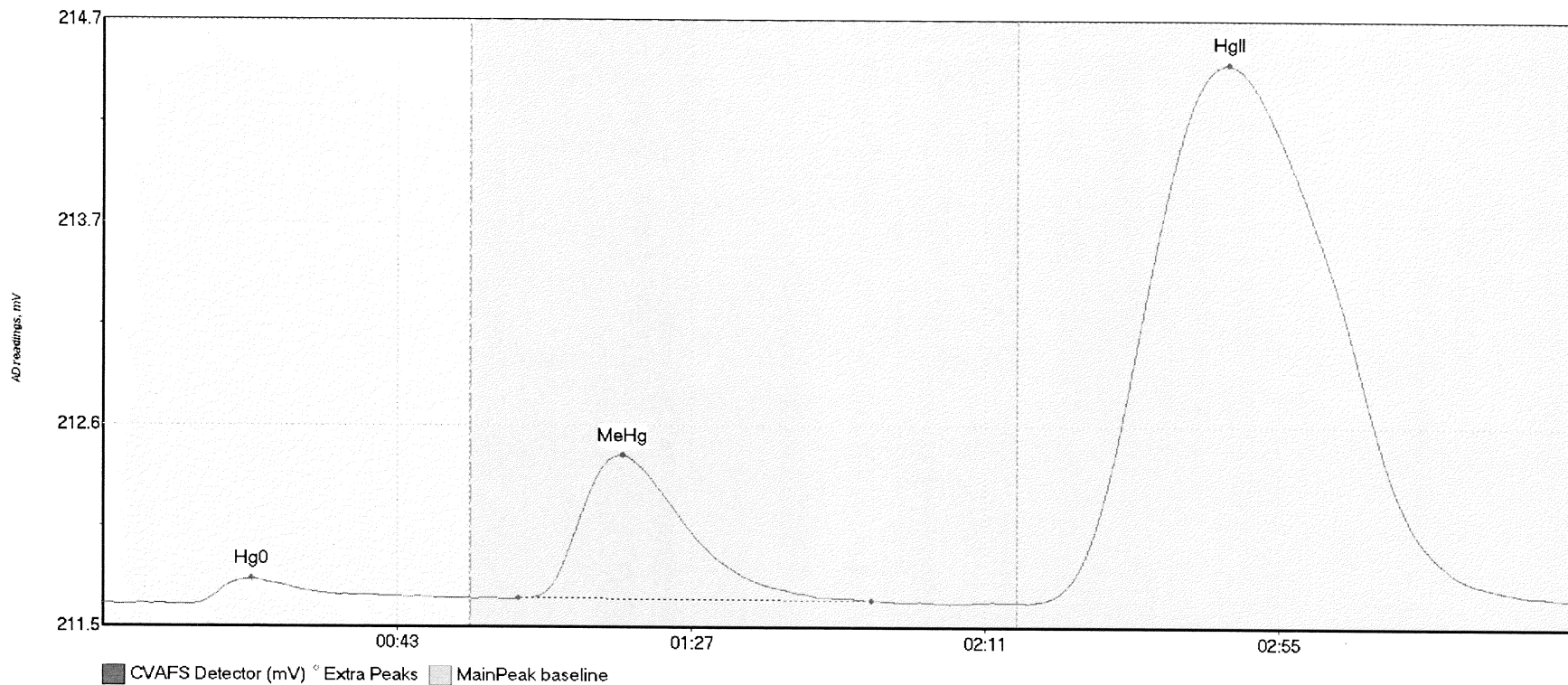
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-03 Hg0	15.324	2.1	55.0	211.65	211.68	21.8	0.108	CT	211.6468	0.00	0.03	
1708241-03 MeHg	152.415	62.6	112.3	211.68	211.68	77.4	0.838	OK	211.6468	0.00	0.03	
1708241-03 HgII	328.844	140.2	219.8	211.66	211.67	168.3	1.048	CT	211.6468	0.00	0.03	017

#78: 1708241-04



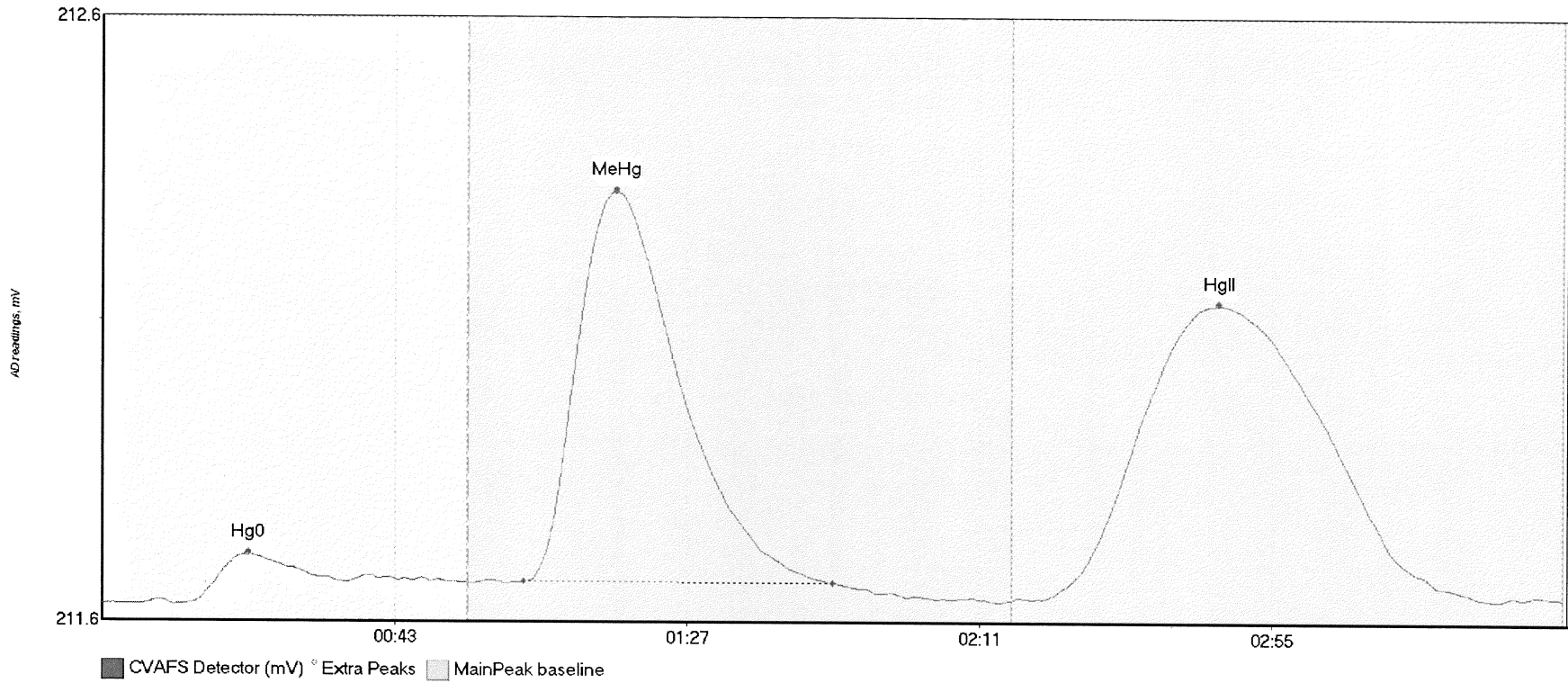
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-04 Hg0	14.465	10.5	55.0	211.66	211.68	23.2	0.098	CT	211.6511	0.00	0.03	
1708241-04 MeHg	213.703	62.3	120.3	211.68	211.68	77.6	1.146	OK	211.6511	0.00	0.03	
1708241-04 HgII	329.904	139.8	219.8	211.67	211.68	169.2	1.057	CT	211.6511	0.00	0.03	

#79: 1708241-05



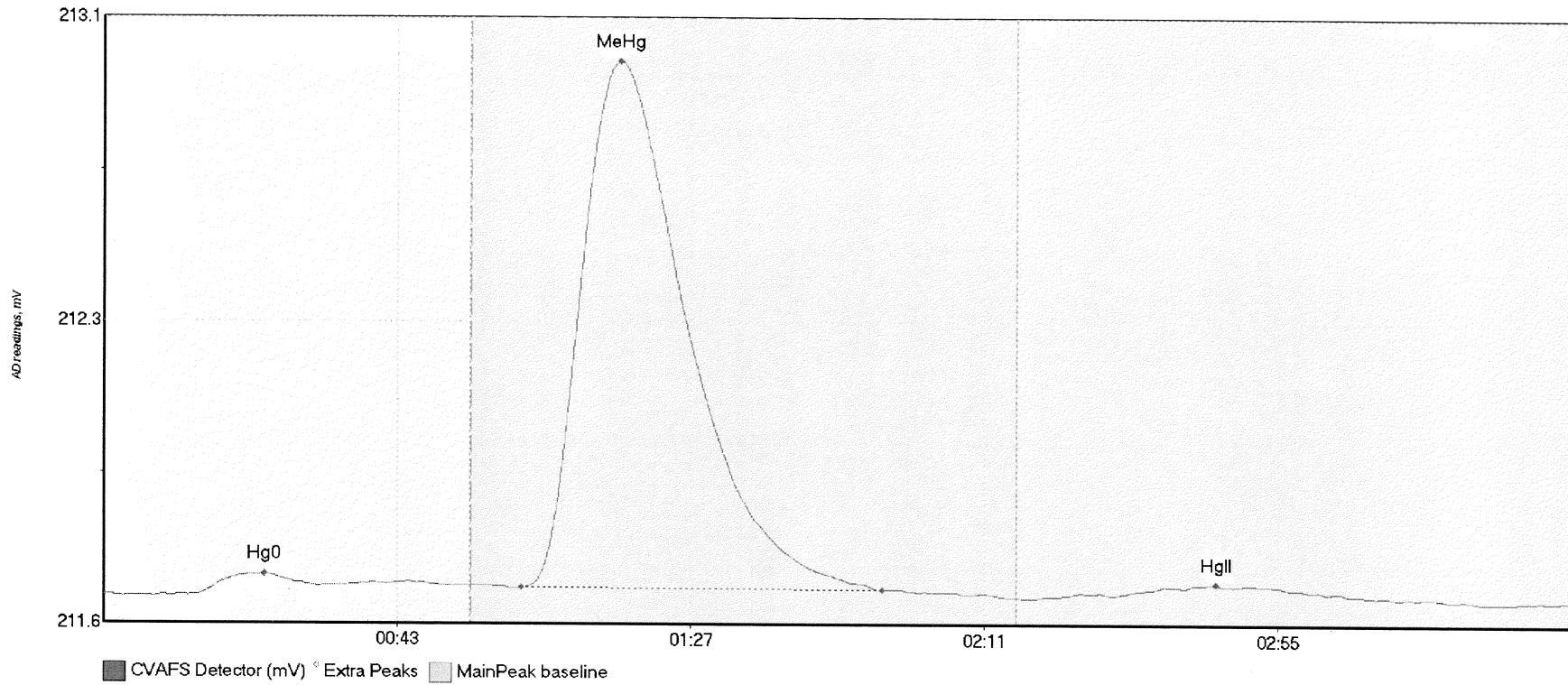
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-05 Hg0	19.237	13.0	52.1	211.65	211.69	22.3	0.136	OK	211.6602	0.00	0.03	
1708241-05 MeHg	137.844	62.1	115.0	211.69	211.68	77.7	0.761	OK	211.6602	0.00	0.03	
1708241-05 HgII	896.698	138.7	219.6	211.67	211.69	168.4	2.851	OK	211.6602	0.00	0.03	

#80: 1708241-11



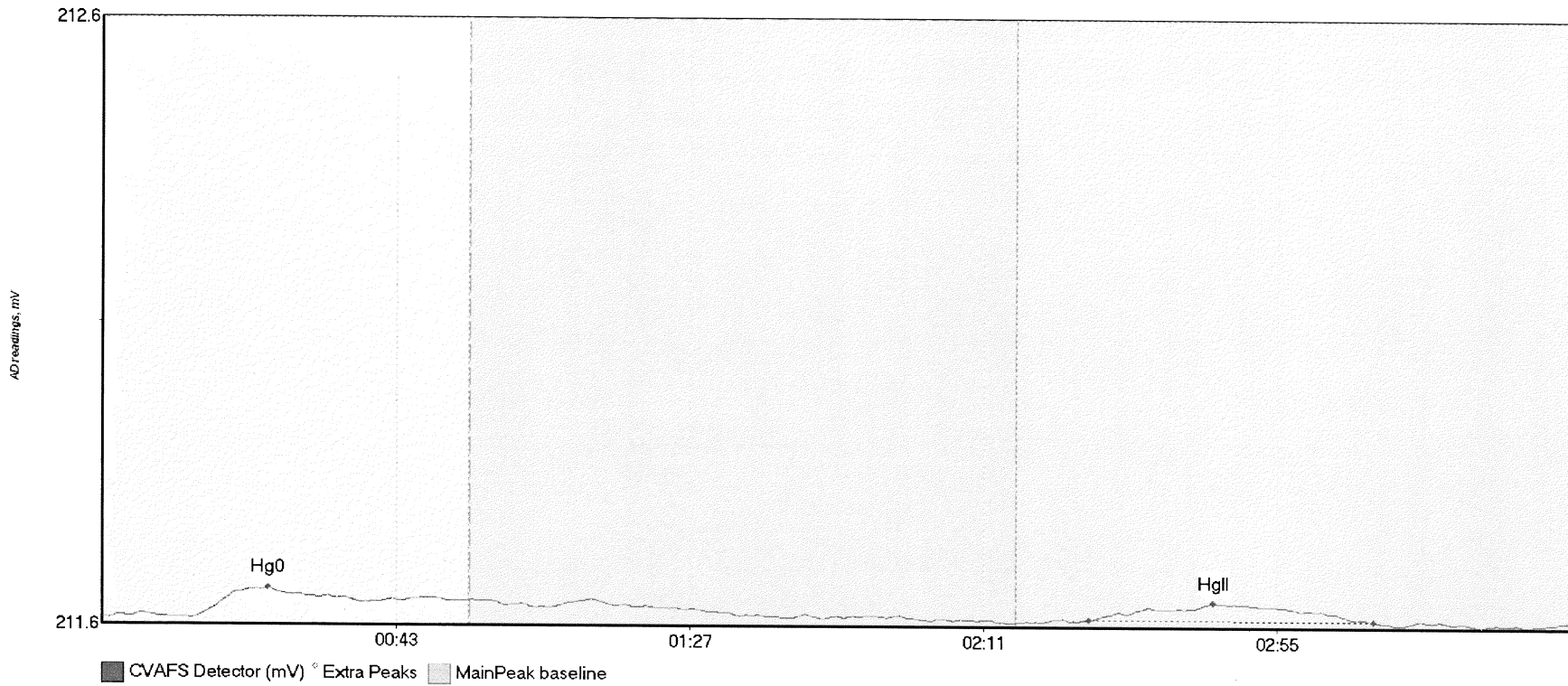
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-11 Hg0	12.210	13.2	55.0	211.64	211.67	22.0	0.081	CT	211.6360	0.00	0.01	
1708241-11 MeHg	114.696	63.4	109.9	211.67	211.67	77.3	0.647	OK	211.6360	0.00	0.01	
1708241-11 HgII	151.975	141.3	207.4	211.65	211.65	168.1	0.490	OK	211.6360	0.00	0.01	

#81: SEQ-CCV6



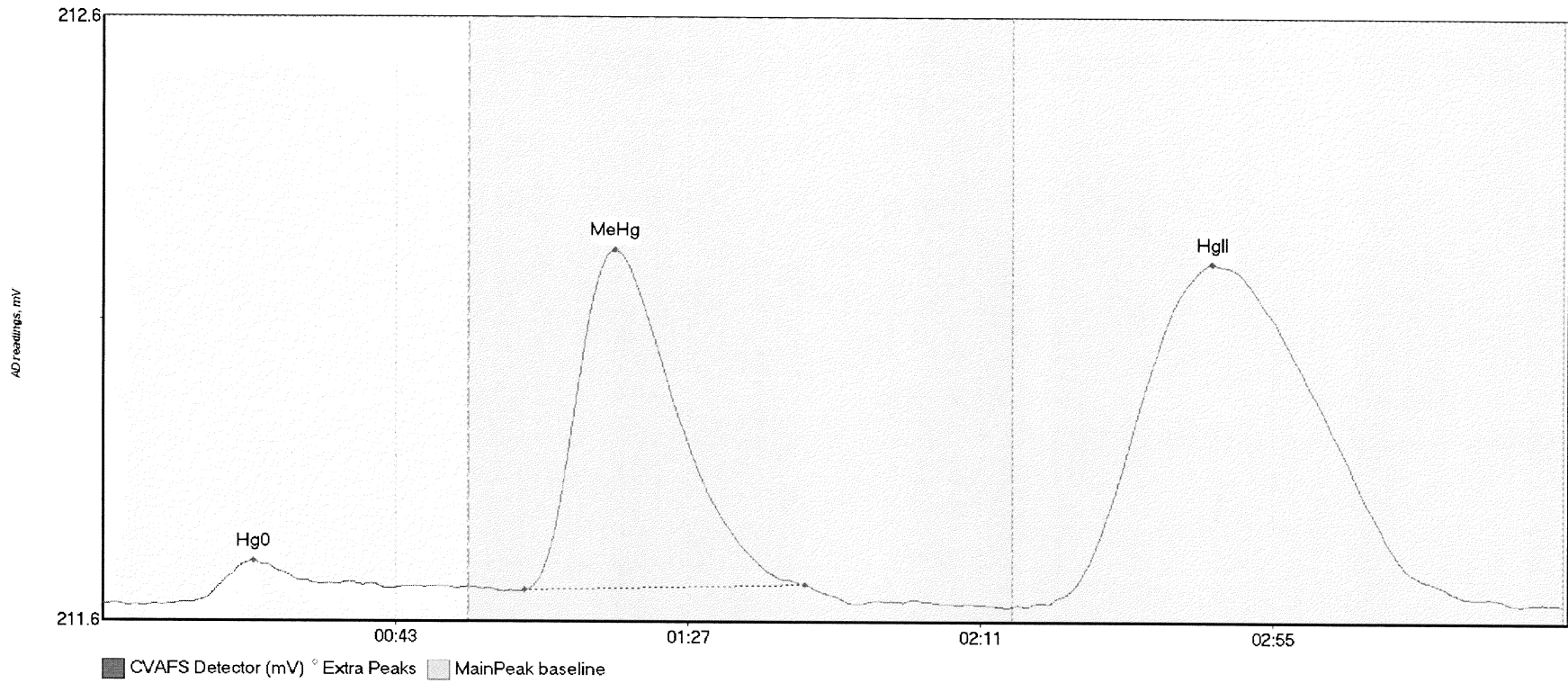
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	4.429	13.7	32.3	211.63	211.66	24.1	0.053	OK	211.6348	0.00	-0.01	
SEQ-CCV6 MeHg	245.624	62.6	116.8	211.65	211.65	77.5	1.344	OK	211.6348	0.00	-0.01	
SEQ-CCV6 HgII	6.839	144.3	187.8	211.63	211.63	166.7	0.030	OK	211.6348	0.00	-0.01	

#82: SEQ-CCB6



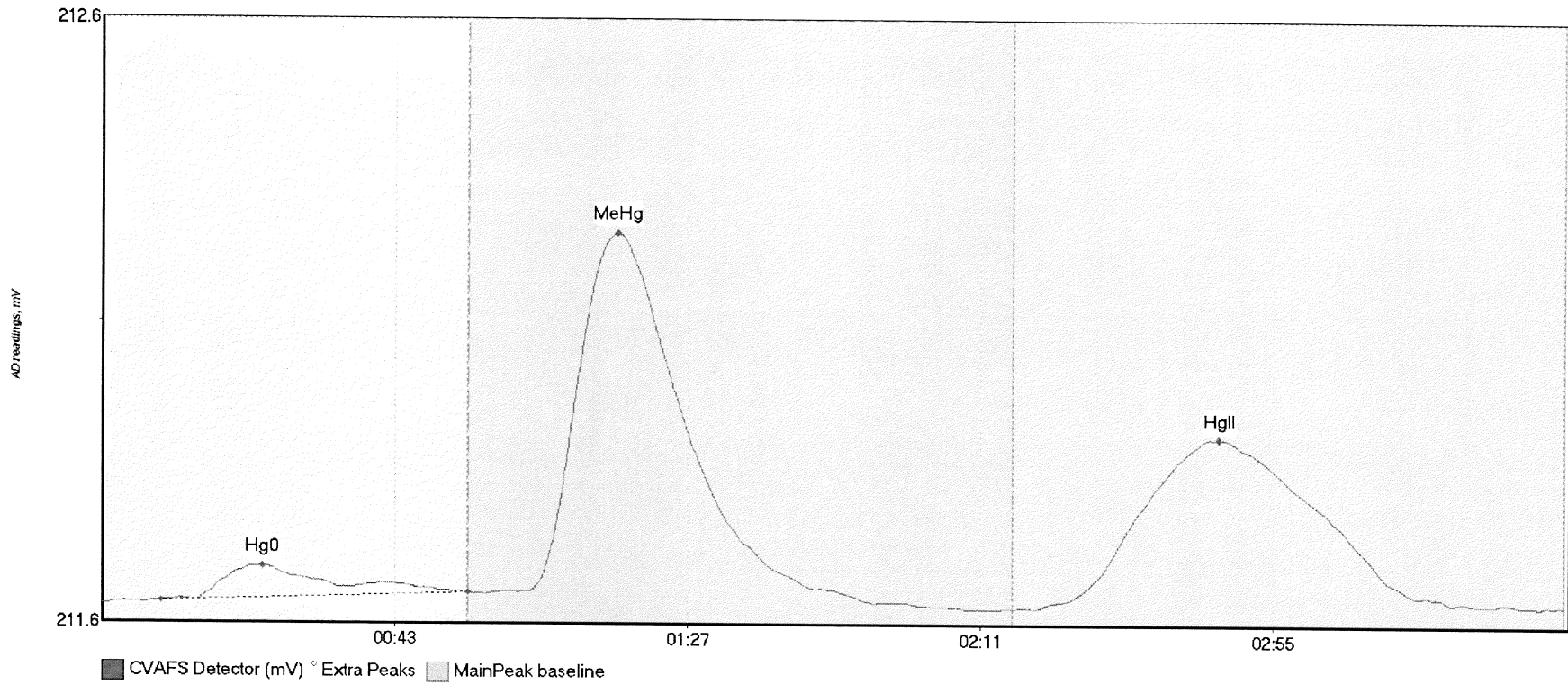
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	5.154	13.5	38.8	211.61	211.64	24.9	0.049	OK	211.6113	0.00	0.00	
SEQ-CCB6 HgII	7.459	147.7	190.4	211.61	211.61	166.5	0.029	OK	211.6113	0.00	0.00	017

#83: 1708241-12



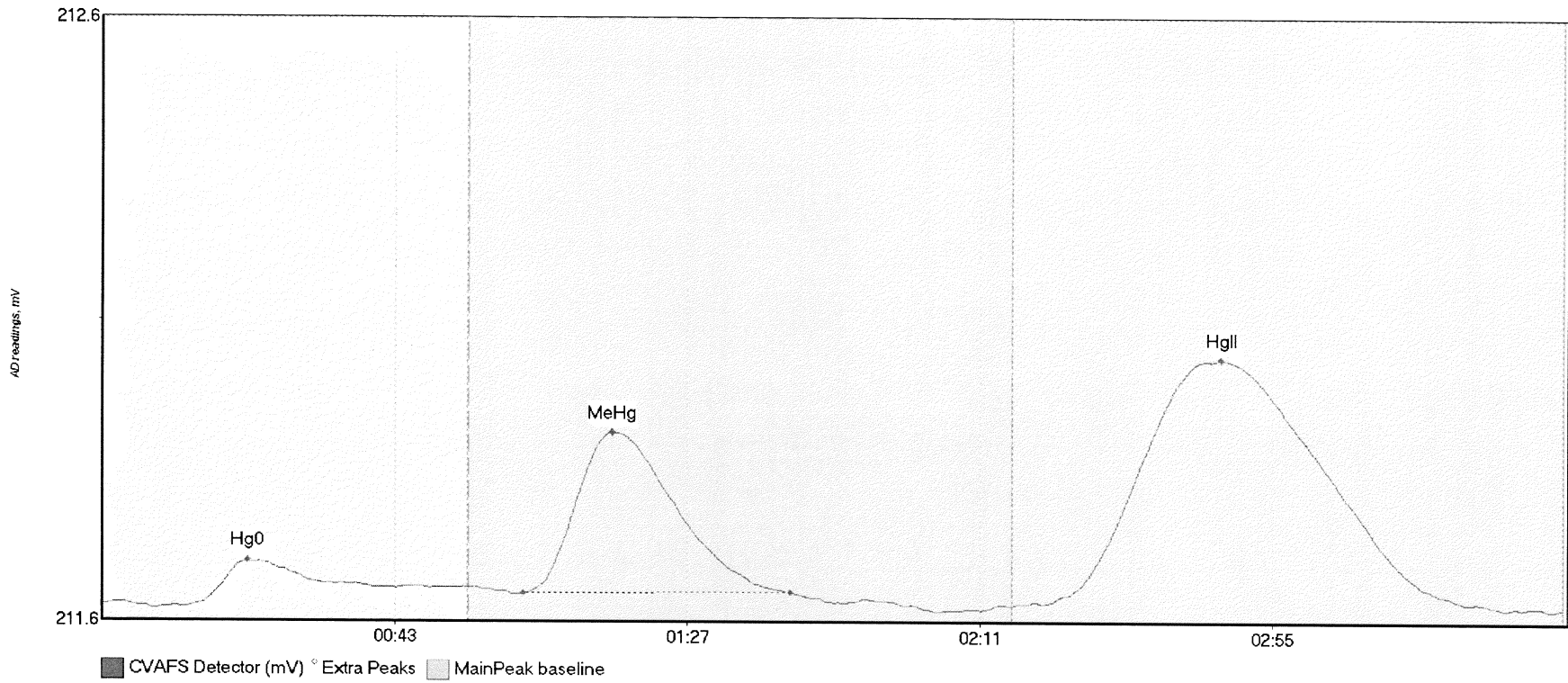
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-12 Hg0	8.889	13.3	53.1	211.61	211.63	22.7	0.068	OK	211.6067	0.00	0.00	
1708241-12 MeHg	95.580	63.4	105.6	211.63	211.64	77.0	0.563	OK	211.6067	0.00	0.00	
1708241-12 HgII	171.905	142.2	213.3	211.61	211.61	166.9	0.563	OK	211.6067	0.00	0.00	

#84: 1708241-13



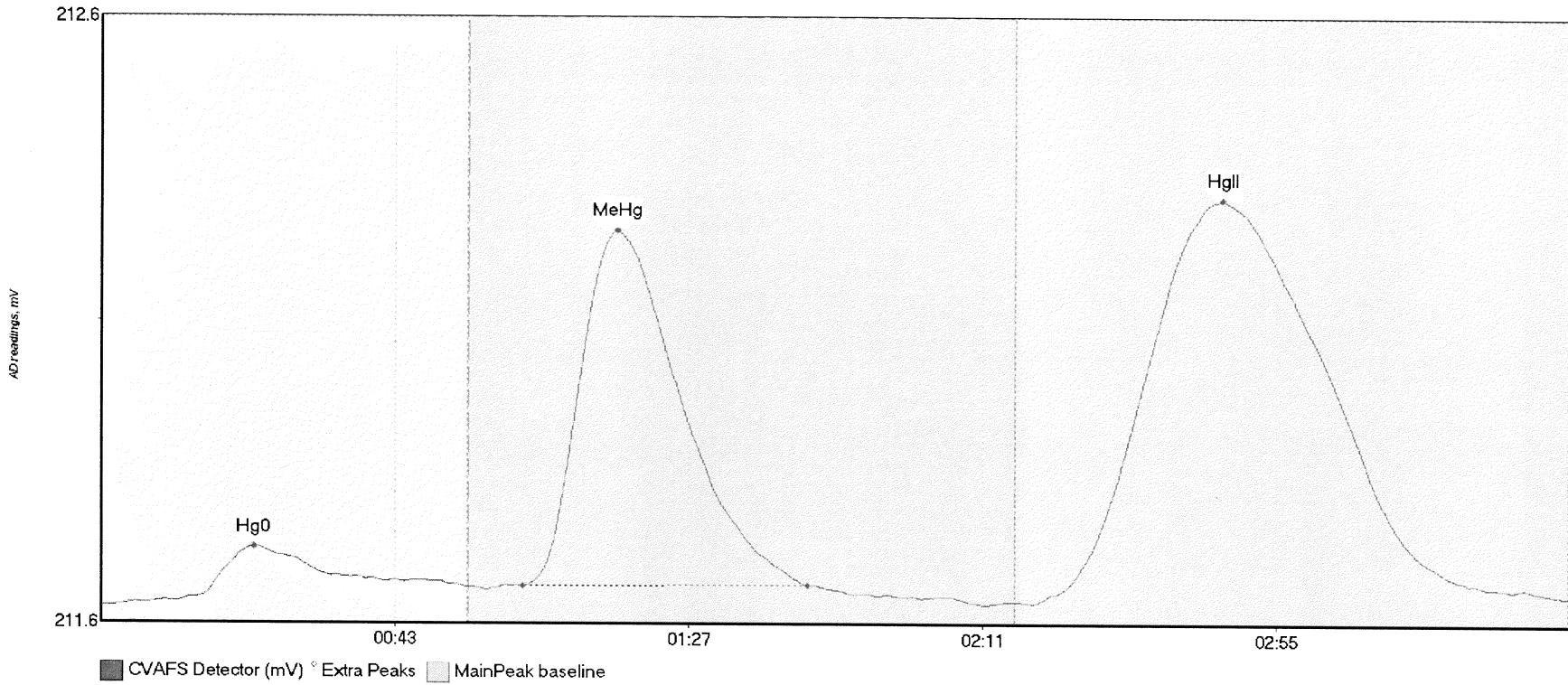
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-13 Hg0	9.744	8.8	55.0	211.61	211.63	24.2	0.058	CT	211.6062	0.00	0.00	
1708241-13 MeHg	104.987	64.1	111.8	211.63	211.62	77.5	0.592	OK	211.6062	0.00	0.00	
1708241-13 HgII	84.463	140.4	216.0	211.60	211.61	167.9	0.283	OK	211.6062	0.00	0.00	

#85: 1708241-14



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-14 Hg0	9.801	12.4	49.2	211.61	211.64	21.8	0.076	OK	211.6125	0.00	-0.01	
1708241-14 MeHg	45.623	63.3	103.5	211.63	211.63	76.8	0.268	OK	211.6125	0.00	-0.01	
1708241-14 HgII	123.422	141.6	205.5	211.61	211.61	168.3	0.407	OK	211.6125	0.00	-0.01	

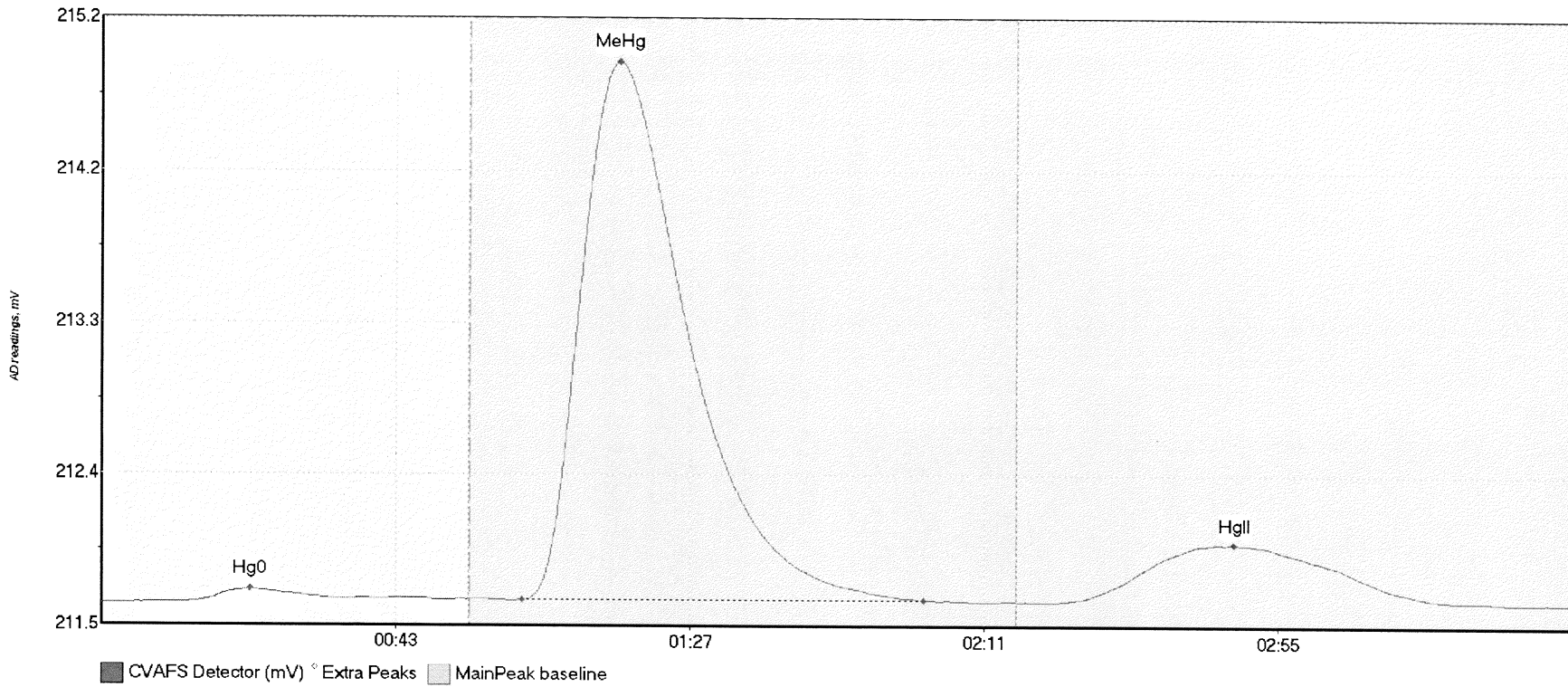
#86: 1708241-15



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-15 Hg0	14.736	6.5	55.0	211.59	211.61	22.9	0.095	CT	211.5824	0.00	0.02	
1708241-15 MeHg	102.008	63.1	105.8	211.62	211.62	77.3	0.587	OK	211.5824	0.00	0.02	
1708241-15 HgII	203.707	139.5	219.5	211.59	211.60	167.9	0.667	OK	211.5824	0.00	0.02	

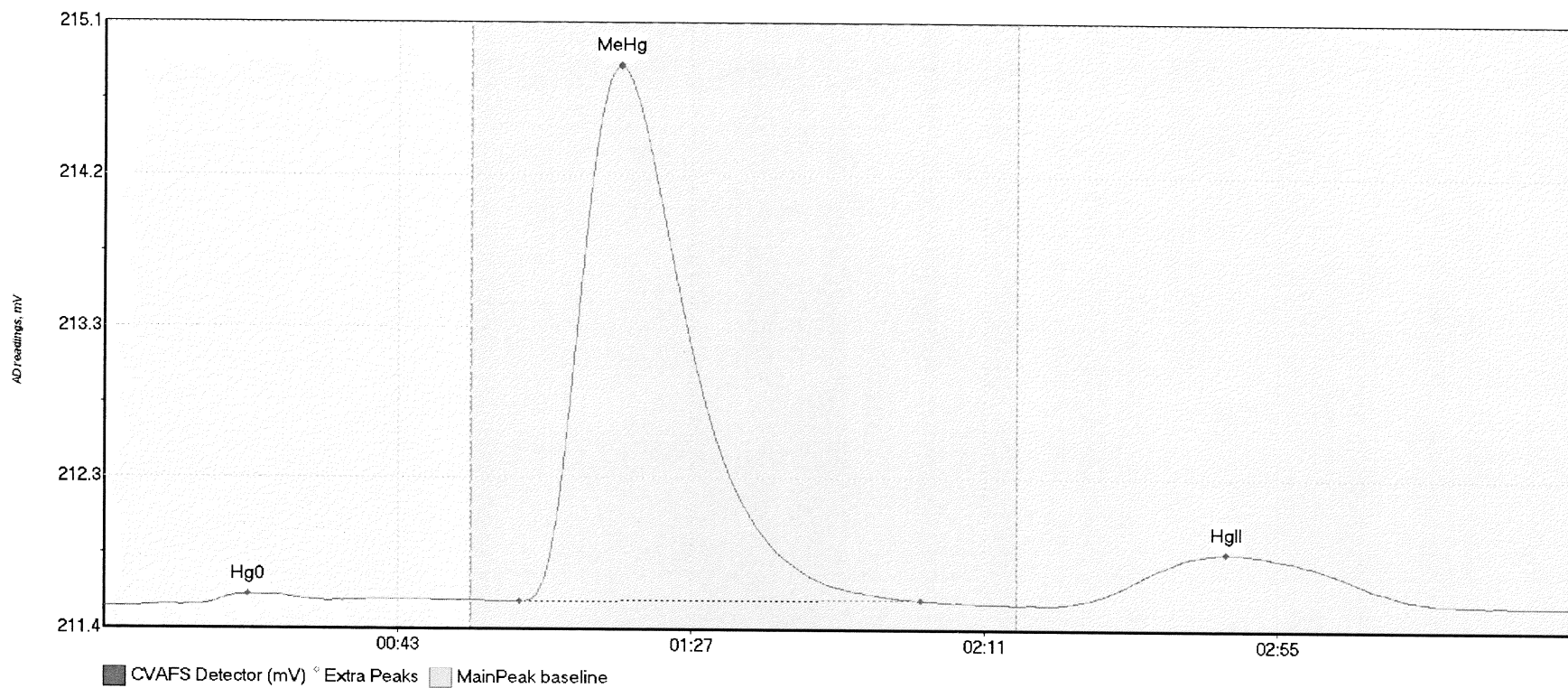
017

#87: F710421-BS2



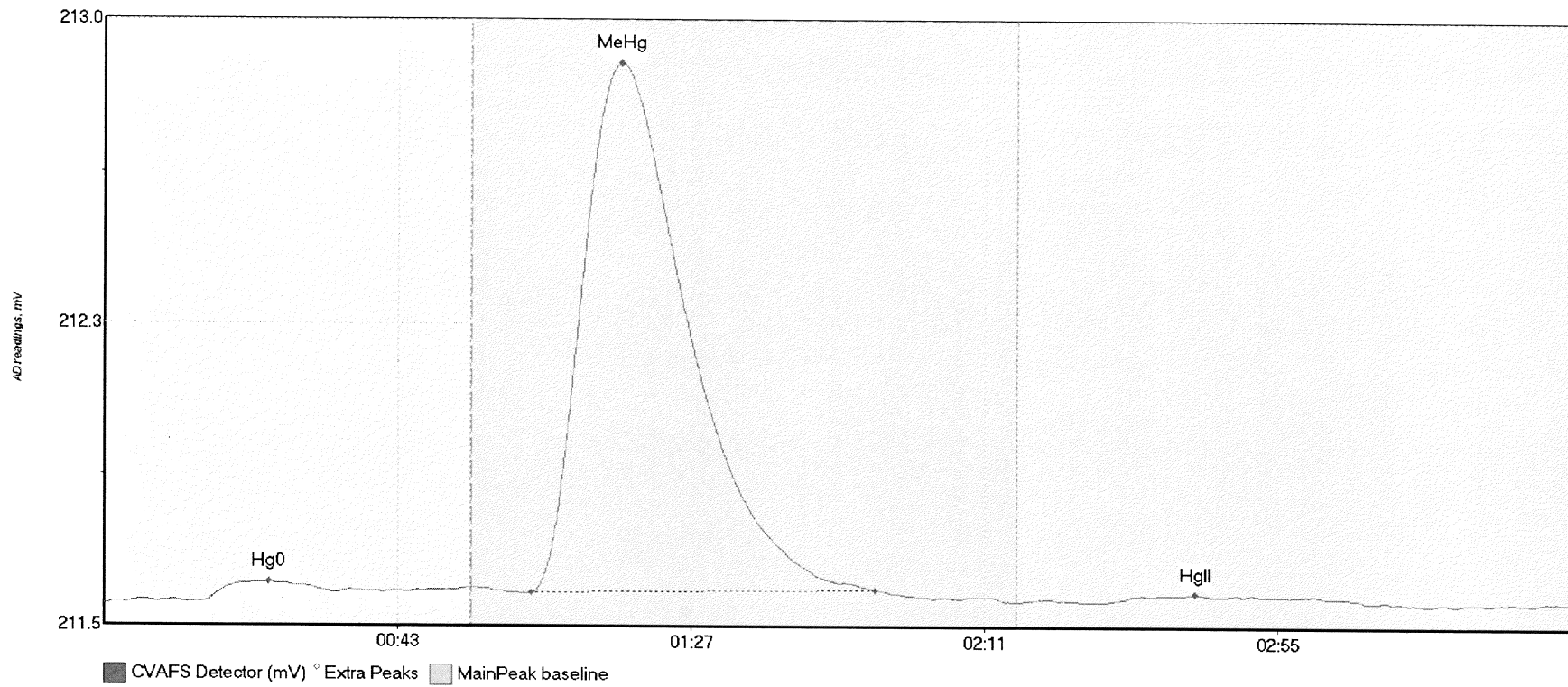
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BS2 Hg0	10.851	11.3	50.3	211.59	211.61	22.3	0.079	OK	211.5872	0.00	0.00	
F710421-BS2 MeH	608.390	62.8	123.0	211.61	211.61	77.5	3.297	OK	211.5872	0.00	0.00	
F710421-BS2 HgI	110.520	142.4	202.8	211.60	211.60	169.4	0.361	OK	211.5872	0.00	0.00	

#88: F710421-BSD2



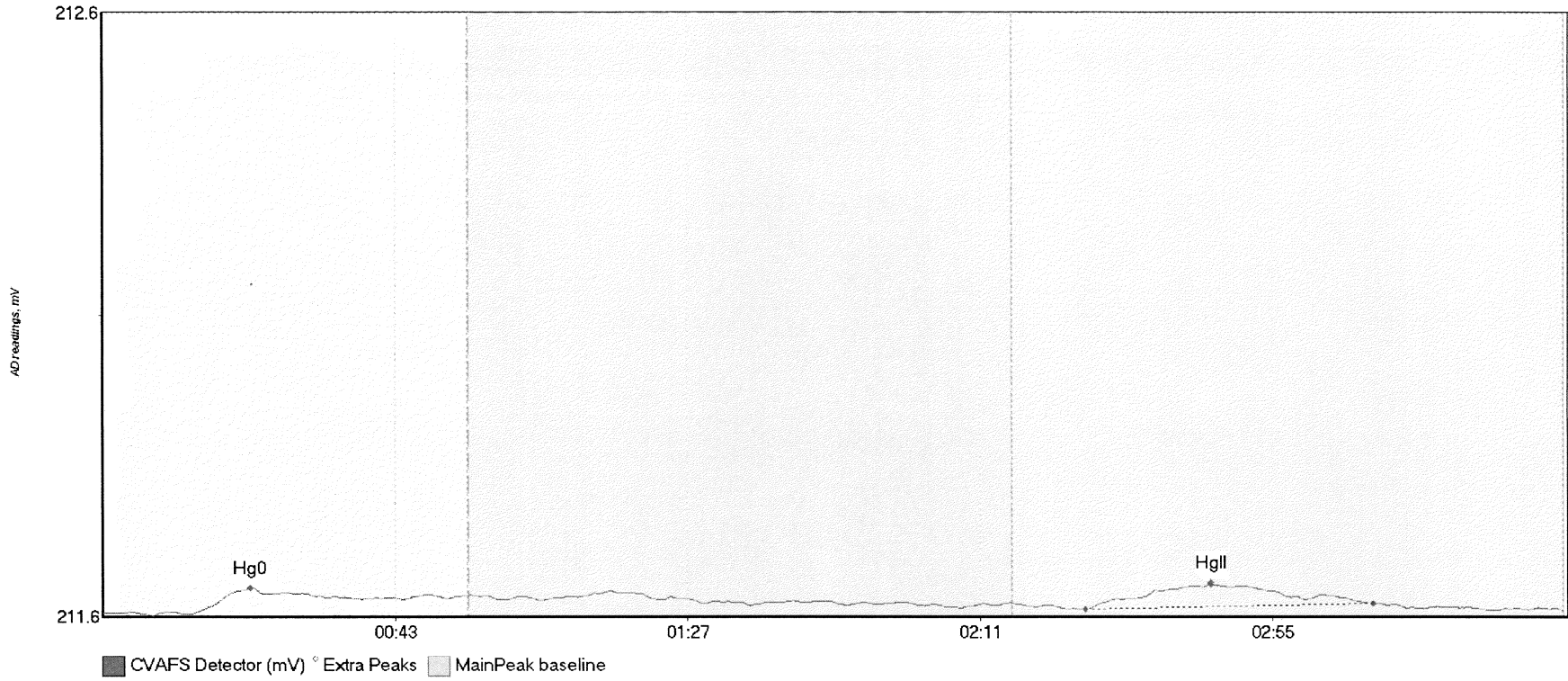
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BSD2 Hg	5.389	6.8	34.0	211.58	211.62	21.6	0.067	OK	211.5796	0.00	0.01	
F710421-BSD2 Me	591.646	62.3	122.5	211.61	211.62	77.4	3.185	OK	211.5796	0.00	0.01	
F710421-BSD2 Hg	95.981	142.4	204.2	211.60	211.60	168.3	0.309	OK	211.5796	0.00	0.01	

#89: SEQ-CCV7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV7 Hg0	4.792	14.4	34.8	211.59	211.61	24.7	0.048	OK	211.5863	0.00	0.01	
SEQ-CCV7 MeHg	236.357	64.0	115.6	211.61	211.62	77.4	1.300	OK	211.5863	0.00	0.01	017
SEQ-CCV7 HgII	5.347	150.1	189.6	211.59	211.59	163.6	0.020	OK	211.5863	0.00	0.01	

#90: SEQ-CCB7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CCB7 Hg0	5.037	12.8	45.2	211.59	211.61	22.1	0.044	OK	211.5901	0.00	0.01	
SEQ-CCB7 HgII	8.987	147.9	191.2	211.60	211.60	166.7	0.041	OK	211.5901	0.00	0.01	017



Frontier Global Sciences

MHg27001-171023-1

Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: October 23, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7J24016

Analyst: DM2

Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	22.10 units	441.92	22.10 units	441.92	84.9 %Rec
SEQ-CAL2	1	0.20 ng/L	95.18 units	475.88	95.18 units	475.88	91.4 %Rec
SEQ-CAL3	1	1.00 ng/L	598.88 units	598.88	598.88 units	598.88	115.0 %Rec
SEQ-CAL4	1	2.00 ng/L	1048.39 units	524.20	1048.39 units	524.20	100.7 %Rec
SEQ-CAL5	1	4.00 ng/L	2248.59 units	562.15	2248.59 units	562.15	108.0 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
520.60	+/- 63.36	12.2% RSD	520.60

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	0.00 units		0.00 ng/L	#VALUE!

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.655 ng/L	±1.793
BLK	2	3	0.000 ng/L	±0.000
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: PR 10/24/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB					Comments
		Type	LabNumber							Correction?	RESP	InitialResult	FinalResult	InitialUnits	
Hg2700-1	DM2	CAL	SEQ-IBL1 ✓	1	10/23/17 11:29	26857-1.RAW	11:29:31	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1 ✓	1	10/23/17 11:40	26858-1.RAW	11:40:01	22.10			22.1	0.042	0.042	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2 ✓	1	10/23/17 11:50	26859-1.RAW	11:50:32	95.18			95.2	0.183	0.183	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3 ✓	1	10/23/17 12:01	26860-1.RAW	12:01:03	598.88			598.9	1.150	1.150	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4 ✓	1	10/23/17 12:11	26861-1.RAW	12:11:33	1048.39			1048.4	2.014	2.014	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5 ✓	1	10/23/17 12:22	26862-1.RAW	12:22:04	2248.59			2248.6	4.319	4.319	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1 ✓	1	10/23/17 12:32	26863-1.RAW	12:32:35	269.01			269.0	0.517	0.517	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1 ✓	1	10/23/17 12:43	26864-1.RAW	12:43:05	1.65			1.6	0.003	0.003	ng/L	
Hg2700-1	DM2	SAM	F710422-BS1 ✓	1000	10/23/17 12:53	26865-1.RAW	12:53:36	1011.88	1		1011.9	1.942	1942.013	ng/L	
Hg2700-1	DM2	SAM	F710422-BSD1 ✓	1000	10/23/17 13:04	26866-1.RAW	13:04:07	1057.63	1		1057.6	2.030	2029.881	ng/L	
Hg2700-1	DM2	SAM	F710421-BS3 ✓	1000	10/23/17 13:14	26867-1.RAW	13:14:37	923.22	2		923.2	1.773	1773.364	ng/L	
Hg2700-1	DM2	SAM	F710421-BSD3 ✓	1000	10/23/17 13:25	26868-1.RAW	13:25:08	933.19	2		933.2	1.793	1792.509	ng/L	
Hg2700-1	DM2	BLK	F710422-BLK1 ✓	500	10/23/17 13:35	26869-1.RAW	13:35:39	3.71	1		3.7	0.007	3.561	ng/L	
Hg2700-1	DM2	BLK	F710422-BLK2 ✓	500	10/23/17 13:46	26870-1.RAW	13:46:10	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F710422-BLK3 ✓	500	10/23/17 13:56	26871-1.RAW	13:56:40	1.46	1		1.5	0.003	1.404	ng/L	
Hg2700-1	DM2	SAM	*F710422-BLK4 ✓	500	10/23/17 14:07	26872-1.RAW	14:07:11	0.00	1		0.0	-0.003	-1.655	ng/L	
Hg2700-1	DM2	SAM	F710422-DUP1 ✓	500	10/23/17 14:17	26873-1.RAW	14:17:41	224.96	1		225.0	0.429	214.401	ng/L	
Hg2700-1	DM2	SAM	F710422-MS1 ✓	500	10/23/17 14:28	26874-1.RAW	14:28:12	778.26	1		778.3	1.492	745.805	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1 ✓	1	10/23/17 14:38	26875-1.RAW	14:38:43	251.53			251.5	0.483	0.483	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1 ✓	1	10/23/17 14:49	26876-1.RAW	14:49:14	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F710422-MSD1 ✓	500	10/23/17 14:59	26877-1.RAW	14:59:44	819.16	1		819.2	1.570	785.090	ng/L	
Hg2700-1	DM2	SAM	F710422-MS2 ✓	500	10/23/17 15:10	26878-1.RAW	15:10:15	695.85	1		695.9	1.333	666.660	ng/L	
Hg2700-1	DM2	SAM	F710422-MSD2 ✓	500	10/23/17 15:20	26879-1.RAW	15:20:46	649.81	1		649.8	1.245	622.441	ng/L	
Hg2700-1	DM2	SAM	1708240-06 ✓	500	10/23/17 15:31	26880-1.RAW	15:31:16	226.61	1		226.6	0.432	215.982	ng/L	
Hg2700-1	DM2	SAM	1708240-07 ✓	500	10/23/17 15:41	26881-1.RAW	15:41:47	87.36	1		87.4	0.164	82.243	ng/L	
Hg2700-1	DM2	SAM	1708240-08 ✓	500	10/23/17 15:52	26882-1.RAW	15:52:18	161.10	1		161.1	0.306	153.073	ng/L	
Hg2700-1	DM2	SAM	1708240-09 ✓	500	10/23/17 16:02	26883-1.RAW	16:02:48	64.49	1		64.5	0.121	60.279	ng/L	
Hg2700-1	DM2	SAM	1708240-10 ✓	500	10/23/17 16:13	26884-1.RAW	16:13:19	233.22	1		233.2	0.445	222.332	ng/L	
Hg2700-1	DM2	SAM	1708240-11 ✓	500	10/23/17 16:23	26885-1.RAW	16:23:50	190.23	1		190.2	0.362	181.044	ng/L	
Hg2700-1	DM2	SAM	1708240-12 ✓	500	10/23/17 16:34	26886-1.RAW	16:34:20	131.76	1		131.8	0.250	124.887	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2 ✓	1	10/23/17 16:44	26887-1.RAW	16:44:51	227.78			227.8	0.438	0.438	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2 ✓	1	10/23/17 16:55	26888-1.RAW	16:55:22	1.63			1.6	0.003	0.003	ng/L	
Hg2700-1	DM2	SAM	1708240-13 ✓	500	10/23/17 17:05	26889-1.RAW	17:05:52	122.57	1		122.6	0.232	116.062	ng/L	
Hg2700-1	DM2	SAM	1708240-14 ✓	500	10/23/17 17:16	26890-1.RAW	17:16:23	128.35	1		128.4	0.243	121.618	ng/L	
Hg2700-1	DM2	SAM	1708240-15 ✓	500	10/23/17 17:26	26891-1.RAW	17:26:54	157.87	1		157.9	0.300	149.966	ng/L	
Hg2700-1	DM2	SAM	1710535-02 ✓	500	10/23/17 17:37	26892-1.RAW	17:37:24	276.79	1		276.8	0.528	264.181	ng/L	
Hg2700-1	DM2	SAM	1710626-01 ✓	500	10/23/17 17:47	26893-1.RAW	17:47:55	75.51	1		75.5	0.142	70.868	ng/L	
Hg2700-1	DM2	BLK	F710421-BLK8 ✓	500	10/23/17 17:58	26894-1.RAW	17:58:26	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F710421-BLK9 ✓	500	10/23/17 18:08	26895-1.RAW	18:08:56	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F710421-BLKA ✓	500	10/23/17 18:19	26896-1.RAW	18:19:27	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLKB ✓	500	10/23/17 18:29	26897-1.RAW	18:29:58	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLKC ✓	500	10/23/17 18:40	26898-1.RAW	18:40:28	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3 ✓	1	10/23/17 18:50	26899-1.RAW	18:50:59	242.66			242.7	0.466	0.466	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3 ✓	1	10/23/17 19:01	26900-1.RAW	19:01:31	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLKD ✓	500	10/23/17 19:12	26901-1.RAW	19:12:02	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLKE ✓	500	10/23/17 19:22	26902-1.RAW	19:22:32	0.00	2		0.0	0.000	0.000	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB					Comments
		Type	LabNumber							Correction?	RESP	InitialResult	FinalResult	InitialUnits	
Hg2700-1	DM2	SAM	F710421-DUP2 ✓	500	10/23/17 19:33	26903-1.RAW	19:33:03	130.01	2		130.0	0.250	124.865	ng/L	
Hg2700-1	DM2	SAM	F710421-MS3 ✓	500	10/23/17 19:43	26904-1.RAW	19:43:34	714.19	2		714.2	1.372	685.920	ng/L	
Hg2700-1	DM2	SAM	F710421-MSD3 ✓	500	10/23/17 19:54	26905-1.RAW	19:54:05	689.63	2		689.6	1.325	662.333	ng/L	
Hg2700-1	DM2	SAM	F710421-MS4 ✓	500	10/23/17 20:04	26906-1.RAW	20:04:35	685.13	2		685.1	1.316	658.015	ng/L	
Hg2700-1	DM2	SAM	F710421-MSD4 ✓	500	10/23/17 20:15	26907-1.RAW	20:15:06	677.20	2		677.2	1.301	650.397	ng/L	
Hg2700-1	DM2	SAM	1708118-01RE1 ✓	500	10/23/17 20:25	26908-1.RAW	20:25:37	130.52	2		130.5	0.251	125.357	ng/L	
Hg2700-1	DM2	SAM	1708118-02RE1 ✓	500	10/23/17 20:36	26909-1.RAW	20:36:08	103.62	2		103.6	0.199	99.524	ng/L	
Hg2700-1	DM2	SAM	1708118-03RE1 ✓	500	10/23/17 20:46	26910-1.RAW	20:46:38	189.70	2		189.7	0.364	182.188	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4 ✓	1	10/23/17 20:57	26911-1.RAW	20:57:09	251.68	✓		251.7	0.483	0.483	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4 ✓	1	10/23/17 21:07	26912-1.RAW	21:07:40	0.00	✓		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1708118-04RE1 ✓	500	10/23/17 21:18	26913-1.RAW	21:18:11	138.47	2		138.5	0.266	132.989	ng/L	
Hg2700-1	DM2	SAM	1708118-05RE1 ✓	500	10/23/17 21:28	26914-1.RAW	21:28:41	165.02	2		165.0	0.317	158.491	ng/L	
Hg2700-1	DM2	SAM	1708240-01RE1 ✓	500	10/23/17 21:39	26915-1.RAW	21:39:12	105.10	2		105.1	0.202	100.939	ng/L	
Hg2700-1	DM2	SAM	1708240-02RE1 ✓	500	10/23/17 21:49	26916-1.RAW	21:49:43	61.17	2		61.2	0.118	58.752	ng/L	
Hg2700-1	DM2	SAM	1708240-03RE1 ✓	500	10/23/17 22:00	26917-1.RAW	22:00:14	81.17	2		81.2	0.156	77.958	ng/L	
Hg2700-1	DM2	SAM	1708240-04RE1 ✓	500	10/23/17 22:10	26918-1.RAW	22:10:44	110.10	2		110.1	0.211	105.747	ng/L	
Hg2700-1	DM2	SAM	1708240-05RE1 ✓	500	10/23/17 22:21	26919-1.RAW	22:21:15	84.78	2		84.8	0.163	81.426	ng/L	
Hg2700-1	DM2	SAM	1708241-01RE1 ✓	500	10/23/17 22:31	26920-1.RAW	22:31:46	83.44	2		83.4	0.160	80.139	ng/L	
Hg2700-1	DM2	SAM	1708241-02RE1 ✓	500	10/23/17 22:42	26921-1.RAW	22:42:17	165.28	2		165.3	0.317	158.742	ng/L	
Hg2700-1	DM2	SAM	1708241-03RE1 ✓	500	10/23/17 22:52	26922-1.RAW	22:52:47	169.80	2		169.8	0.326	163.081	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5 ✓	1	10/23/17 23:03	26923-1.RAW	23:03:18	269.03	✓		269.0	0.517	0.517	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5 ✓	1	10/23/17 23:13	26924-1.RAW	23:13:49	0.00	✓		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1708241-04RE1 ✓	500	10/23/17 23:24	26925-1.RAW	23:24:19	240.26	2		240.3	0.461	230.749	ng/L	
Hg2700-1	DM2	SAM	1708241-05RE1 ✓	500	10/23/17 23:34	26926-1.RAW	23:34:50	153.08	2		153.1	0.294	147.023	ng/L	
Hg2700-1	DM2	SAM	1708241-11RE1 ✓	500	10/23/17 23:45	26927-1.RAW	23:45:21	128.74	2		128.7	0.247	123.644	ng/L	
Hg2700-1	DM2	SAM	1708241-12RE1 ✓	500	10/23/17 23:55	26928-1.RAW	23:55:52	115.14	2		115.1	0.221	110.579	ng/L	
Hg2700-1	DM2	SAM	1708241-13RE1 ✓	500	10/23/17 0:06	26929-1.RAW	0:06:23	106.42	2		106.4	0.204	102.206	ng/L	
Hg2700-1	DM2	SAM	1708241-14RE1 ✓	500	10/23/17 0:16	26930-1.RAW	0:16:53	44.90	2		44.9	0.086	43.121	ng/L	
Hg2700-1	DM2	SAM	1708241-15RE1 ✓	500	10/23/17 0:27	26931-1.RAW	0:27:24	127.98	2		128.0	0.246	122.914	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6 ✓	1	10/23/17 0:37	26932-1.RAW	0:37:55	268.68	✓		268.7	0.516	0.516	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6 ✓	1	10/23/17 0:48	26933-1.RAW	0:48:25	0.00	✓		0.0	0.000	0.000	ng/L	

ANALYSIS SEQUENCE

7J24016

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/23/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J24016-IBL1 ✓	QC	1			
7J24016-CAL1 ✓	QC	2	1706041 ✓		
7J24016-CAL2 ✓	QC	3	1706042 ✓		
7J24016-CAL3 ✓	QC	4	1706043 ✓		
7J24016-CAL4 ✓	QC	5	1706044 ✓		
7J24016-CAL5 ✓	QC	6	1706045 ✓		
7J24016-ICV1 ✓	QC	7	1705084 ✓		
7J24016-ICB1 ✓	QC	8			
F710422-BS1 ✓	QC	9			
F710422-BSD1 ✓	QC	10			
F710421-BS3 ✓	QC	11			
F710421-BSD3 ✓	QC	12			
F710422-BLK1 ✓	QC	13			
F710422-BLK2 ✓	QC	14			
F710422-BLK3 ✓	QC	15			
F710422-BLK4 ✓	QC	16			
F710422-DUP1 ✓	QC	17			
F710422-MS1 ✓	QC	18			
7J24016-CCV1 ✓	QC	19	1705084 ✓		
7J24016-CCB1 ✓	QC	20			
F710422-MSD1 ✓	QC	21			
F710422-MS2 ✓	QC	22			
F710422-MSD2 ✓	QC	23			
1708240-06 ✓	MHg-CVAFS-T-KOH	24			
1708240-07 ✓	MHg-CVAFS-T-KOH	25			
1708240-08 ✓	MHg-CVAFS-T-KOH	26			
1708240-09 ✓	MHg-CVAFS-T-KOH	27			
1708240-10 ✓	MHg-CVAFS-T-KOH	28			
1708240-11 ✓	MHg-CVAFS-T-KOH	29			
1708240-12 ✓	MHg-CVAFS-T-KOH	30			
7J24016-CCV2 ✓	QC	31	1705084 ✓		
7J24016-CCB2 ✓	QC	32			
1708240-13 ✓	MHg-CVAFS-T-KOH	33			
1708240-14 ✓	MHg-CVAFS-T-KOH	34			
1708240-15 ✓	MHg-CVAFS-T-KOH	35			

Due Date: 11/15/2017

ANALYSIS SEQUENCE

7J24016

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/23/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1710535-02 ✓	MHg-CVAFS-T-KOH	36			
1710626-01 ✓	MHg-CVAFS-T-KOH	37			Scan all data for level IV report
F710421-BLK8 ✓	QC	38			
F710421-BLK9 ✓	QC	39			
F710421-BLKA ✓	QC	40			
F710421-BLKB ✓	QC	41			
F710421-BLKC ✓	QC	42			
7J24016-CCV3 ✓	QC	43	1705084	✓	
7J24016-CCB3 ✓	QC	44			
F710421-BLKD ✓	QC	45			
F710421-BLKE ✓	QC	46			
F710421-DUP2 ✓	QC	47			
F710421-MS3 ✓	QC	48			
F710421-MSD3 ✓	QC	49			
F710421-MS4 ✓	QC	50			
F710421-MSD4 ✓	QC	51			
1708118-01RE1 ✓	MHg-CVAFS-T-KOH	52			Added 10/23/2017 by DM2
1708118-02RE1 ✓	MHg-CVAFS-T-KOH	53			Added 10/23/2017 by DM2
1708118-03RE1 ✓	MHg-CVAFS-T-KOH	54			Added 10/23/2017 by DM2
7J24016-CCV4 ✓	QC	55	1705084	✓	
7J24016-CCB4 ✓	QC	56			
1708118-04RE1 ✓	MHg-CVAFS-T-KOH	57			Added 10/23/2017 by DM2
1708118-05RE1 ✓	MHg-CVAFS-T-KOH	58			Added 10/23/2017 by DM2
1708240-01RE1 ✓	MHg-CVAFS-T-KOH	59			Added 10/23/2017 by DM2
1708240-02RE1 ✓	MHg-CVAFS-T-KOH	60			Added 10/23/2017 by DM2
1708240-03RE1 ✓	MHg-CVAFS-T-KOH	61			Added 10/23/2017 by DM2
1708240-04RE1 ✓	MHg-CVAFS-T-KOH	62			Added 10/23/2017 by DM2
1708240-05RE1 ✓	MHg-CVAFS-T-KOH	63			Added 10/23/2017 by DM2
1708241-01RE1 ✓	MHg-CVAFS-T-KOH	64			Added 10/23/2017 by DM2
1708241-02RE1 ✓	MHg-CVAFS-T-KOH	65			Added 10/23/2017 by DM2
1708241-03RE1 ✓	MHg-CVAFS-T-KOH	66			Added 10/23/2017 by DM2
7J24016-CCV5 ✓	QC	67	1705084	✓	
7J24016-CCB5 ✓	QC	68			
1708241-04RE1 ✓	MHg-CVAFS-T-KOH	69			Added 10/23/2017 by DM2
1708241-05RE1 ✓	MHg-CVAFS-T-KOH	70			Added 10/23/2017 by DM2

Due Date: 11/15/2017

PREPARATION BENCH SHEET

F710422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710422-BLK1	Blank	0.25	20					
F710422-BLK2	Blank	0.25	20					
F710422-BLK3	Blank	0.25	20					
F710422-BLK4	Blank	0.287	20					Filter Blank for 1710626
F710422-BS1	LCS	0.1272	20	1705412	127.2			
F710422-BSD1	LCS Dup	0.1272	20	1705412	127.2			
F710422-DUP1	Duplicate [1708240-10]	0.284	20					
F710422-MS1	Matrix Spike [1708240-10]	0.279	20	1705977	100			
F710422-MS2	Matrix Spike [1708240-15]	0.267	20	1705977	100			
F710422-MSD1	Matrix Spike Dup [1708240-10]	0.267	20	1705977	100			
F710422-MSD2	Matrix Spike Dup [1708240-15]	0.276	20	1705977	100			

Standard ID(s):
1705412
1705977

Description:
DORM-4
MHg New Primary 100 ng/mL spike

Expiration:
06-Jan-20 00:00
15-Sep-18 00:00

Reagent ID(s):
1702551
1705427
1705837
1706016
1706109

Description:
Boiling Chips for AFS prep
Methanol, HPLC Grade
25% KOH/Methanol
Ethylating Agent (For Methyl Mercury Analysis)
Acetate Buffer

Expiration:
31-Dec-17 00:00
08-Sep-20 00:00
03-Feb-18 00:00
08-Apr-18 00:00
11-Apr-18 00:00

PREPARATION BENCH SHEET

F710422

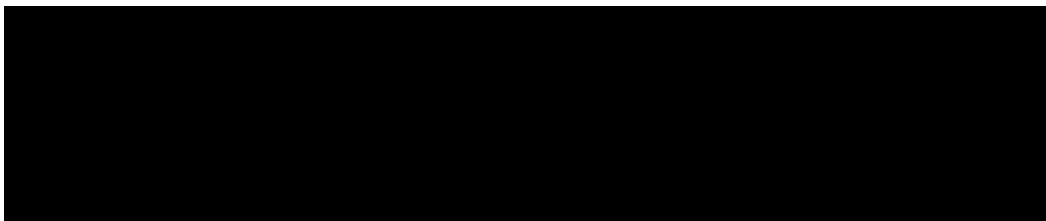
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708240-06	PI-01_17HC001_080217_POL_01_WB	0.255	20	-	-	-		
1708240-07	PI-01_17HC001_080217_POL_02_WB	0.277	20	-	-	-		
1708240-08	PI-01_17HC001_080217_POL_03_WB	0.264	20	-	-	-		
1708240-09	PI-01_17HC001_080217_POL_04_WB	0.262	20	-	-	-		
1708240-10	PI-01_17HC001_080217_POL_05_WB	0.278	20	QC	-	-	MS/MSD	
1708240-11	SVE-02INT_17HC001_080217_POL_01_WB	0.287	20	-	-	-		
1708240-12	SVE-02INT_17HC001_080217_POL_02_WB	0.257	20	-	-	-		
1708240-13	SVE-02INT_17HC001_080217_POL_03_WB	0.267	20	-	-	-		
1708240-14	SVE-02INT_17HC001_080217_POL_04_WB	0.262	20	-	-	-		
1708240-15	SVE-02INT_17HC001_080217_POL_05_WB	0.269	20	QC	-	-	MS/MSD	
1710535-02	221177 salmon S-170907-00113	0.276	20	-	-	-	Retest of 1709673-07 (@500x)	
1710626-01	OL-2688-01	0.258	20	-	-	-	Scan all data for level IV report	



PREPARATION BENCH SHEET

2700-1

F710422

10/23/17 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710422-BLK1	Blank	0.25	20					500X ✓
F710422-BLK2	Blank	0.25	20					500X ✓
F710422-BLK3	Blank	0.25	20					500X ✓
F710422-BLK4	Blank	0.287	20					Filter Blank for 1710626 500X ✓
F710422-BS1	LCS	0.1272	20	1705412	127.2			1000X ✓
F710422-BSD1	LCS Dup	0.1272	20	1705412	127.2			1000X ✓
F710422-DUP1	Duplicate [1708240-10]	0.284	20					500X ✓
F710422-MS1	Matrix Spike [1708240-10]	0.279	20	1705977	100			500X ✓
F710422-MS2	Matrix Spike [1708240-15]	0.267	20	1705977	100			500X ✓
F710422-MSD1	Matrix Spike Dup [1708240-10]	0.267	20	1705977	100			500X ✓
F710422-MSD2	Matrix Spike Dup [1708240-15]	0.276	20	1705977	100			500X ✓

Standard ID(s):
1705412
1705977

Description:
DORM-4
MHg New Primary 100 ng/mL spike

Expiration:
06-Jan-20 00:00
15-Sep-18 00:00

Reagent ID(s):
1702551
1705427
1705837

Description:
Boiling Chips for AFS prep
Methanol, HPLC Grade
25% KOH/Methanol

Expiration:
31-Dec-17 00:00
08-Sep-20 00:00
03-Feb-18 00:00

1706109
1706016

Due Date: 11/14/2017

PREPARATION BENCH SHEET

2700-1

10/23/17 DM

F710422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708240-06	PI-01_17HC001_080217_POL_01_WB	0.255	20	-	-	-		500x
1708240-07	PI-01_17HC001_080217_POL_02_WB	0.277	20	-	-	-		500x
1708240-08	PI-01_17HC001_080217_POL_03_WB	0.264	20	-	-	-		500x
1708240-09	PI-01_17HC001_080217_POL_04_WB	0.262	20	-	-	-		500x
1708240-10	PI-01_17HC001_080217_POL_05_WB	0.278	20	QC	-	-	MS/MSD	500x
1708240-11	SVE-02INT_17HC001_080217_POL_01_WB	0.287	20	-	-	-		500x
1708240-12	SVE-02INT_17HC001_080217_POL_02_WB	0.257	20	-	-	-		500x
1708240-13	SVE-02INT_17HC001_080217_POL_03_WB	0.267	20	-	-	-		500x
1708240-14	SVE-02INT_17HC001_080217_POL_04_WB	0.262	20	-	-	-		500x
1708240-15	SVE-02INT_17HC001_080217_POL_05_WB	0.269	20	QC	-	-	MS/MSD	500x
1710535-02	221177 salmon S-170907-00113	0.276	20	-	-	-	Retest of 1709673-07 (@500x)	500x
1710626-01	OL-2688-01	0.258	20	-	-	-	Scan all data for level IV report	500x

Technician: WF Batch#: F710422 Date: 10/19/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6,19105244 Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 9:15 Actual Temp. (raw): 76.0 °C w/ CF: 76.0 °C
 Time out: 22:15 Actual Temp. (raw): Times °C w/ CF: Timer °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705427) Spike vol.: 100 µL (LIMS ID: 1705977)
 Spike Witness: DM 10/19/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: N1104693 Calibration Date: 10/18/17
 HNO₃ LIMS ID: N/A Pipette SN#: M101152 Calibration Date: 10/18/17
 70/30 LIMS ID: N/A Dispenser #: 02148426 Calibrated? Yes No
 Other Acid LIMS ID: Kott/Methanol-1705837 Dispenser #: N/A
 Glass Vial # 00068847 Boiling Chip lot # 1702551 *Hotblock Position: A6

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710422 F710422 - BLK1	0.276	23	170626 - 01	0.258	BS1/BSD1 = duplicate LIMS: 1705427 Balance: 1g
2	F710422 - BLK2	0.283	24			
3	F710422 - BLK3	0.262	25			Comments
4	F710422 - BLK4	0.287	26			
5	F710422 - BS1	0.1272	27			MS/MSD spiked with 100µL of 1705977
6	F710422 - BSD1	0.1272	28			
7	1708240 - 06	0.255	29			BLK4 is filter blank for 170626-01
8	1708240 - 07	0.277	30			
9	1708240 - 08	0.264	31			
10	1708240 - 09	0.262	32			
11	1708240 - 10	0.278	33			DUP1/MS1/MSD1 source: 1708240-10
12	F710422 - DUP1	0.284	34			
13	F710422 - MS1	0.279	35			MS2/MSD2 source: 1708240-15
14	F710422 - MSD1	0.267	36			
15	1708240 - 11	0.287	37			
16	1708240 - 12	0.257	38			
17	1708240 - 13	0.267	39			
18	1708240 - 14	0.262	40			
19	1708240 - 15	0.269	41			
20	F710422 - MS2	0.267	42			
21	F710422 - MSD2	0.272	43			
22	1710535 - 02	0.272	44			

PREPARATION BENCH SHEET

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710421-BLK1	Blank	0.25	20					
F710421-BLK2	Blank	0.25	20					
F710421-BLK3	Blank	0.25	20					
F710421-BLK4	Blank	0.282	20					Pre-homogenization Blank for 1708118/1708119
F710421-BLK5	Blank	0.27	20					Post-homogenization Blank for 1708118/1708119
F710421-BLK6	Blank	0.283	20					Pre-homogenization Blank for 1708240/1708241
F710421-BLK7	Blank	0.278	20					Pre-homogenization Blank for 1708240/1708241
F710421-BLK8	Blank	0.25	20					
F710421-BLK9	Blank	0.25	20					
F710421-BLKA	Blank	0.25	20					
F710421-BLKB	Blank	0.282	20					
F710421-BLKC	Blank	0.27	20					
F710421-BLKD	Blank	0.283	20					
F710421-BLKE	Blank	0.278	20					
F710421-BS1	LCS	0.1259	20	1705412	125.9			
F710421-BS2	LCS	0.1259	20	1705412	125.9			
F710421-BS3	LCS	0.1259	20	1705412	125.9			
F710421-BSD1	LCS Dup	0.1275	20	1705412	127.5			
F710421-BSD2	LCS Dup	0.1275	20	1705412	127.5			
F710421-BSD3	LCS Dup	0.1275	20	1705412	127.5			
F710421-DUP1	Duplicate [1708118-01]	0.263	20					
F710421-DUP2	Duplicate [1708118-01RE1]	0.263	20					
F710421-MS1	Matrix Spike [1708118-01]	0.262	20	1705977	100			

Due Date: 11/15/2017

PREPARATION BENCH SHEET

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

F710421-MS2	Matrix Spike [1708241-01]	0.275	20	1705977	100			
F710421-MS3	Matrix Spike [1708118-01RE1]	0.262	20	1705977	100			
F710421-MS4	Matrix Spike [1708241-01RE1]	0.275	20	1705977	100			
F710421-MSD1	Matrix Spike Dup [1708118-01]	0.256	20	1705977	100			
F710421-MSD2	Matrix Spike Dup [1708241-01]	0.265	20	1705977	100			
F710421-MSD3	Matrix Spike Dup [1708118-01RE1]	0.256	20	1705977	100			
F710421-MSD4	Matrix Spike Dup [1708241-01RE1]	0.265	20	1705977	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705412	DORM-4	06-Jan-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
		06-Jan-20 00:00	1704707	Acetate Buffer	29-Jan-18 00:00
1705977	MHg New Primary 100 ng/mL spike	15-Sep-18 00:00	1705427	Methanol, HPLC Grade	08-Sep-20 00:00
			1705837	25% KOH/Methanol	03-Feb-18 00:00
			1706016	Ethylating Agent (For Methyl Mercury Analysis)	08-Apr-18 00:00
			1706109	Acetate Buffer	11-Apr-18 00:00

PREPARATION BENCH SHEET

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708118-01	OB-01_17HC001_072517_POL_01_WB	0.254	20	QC	-	-	MS/MSD	
1708118-01RE1	OB-01_17HC001_072517_POL_01_WB	0.254	20	QC	-	-	MS/MSD Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708118-02	OB-01_17HC001_072517_POL_02_WB	0.265	20	-	-	-		
1708118-02RE1	OB-01_17HC001_072517_POL_02_WB	0.265	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708118-03	OB-01_17HC001_072517_POL_03_WB	0.288	20	-	-	-		
1708118-03RE1	OB-01_17HC001_072517_POL_03_WB	0.288	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708118-04	OB-01_17HC001_072517_POL_04_WB	0.256	20	-	-	-		
1708118-04RE1	OB-01_17HC001_072517_POL_04_WB	0.256	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708118-05	OB-01_17HC001_072517_POL_05_WB	0.258	20	-	-	-		
1708118-05RE1	OB-01_17HC001_072517_POL_05_WB	0.258	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708240-01	MM-MR_INT_17HC001_080117_POL_01_WB	0.268	20	-	-	-		
1708240-01RE1	MM-MR_INT_17HC001_080117_POL_01_WB	0.268	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708240-02	MM-MR_INT_17HC001_080117_POL_02_WB	0.285	20	-	-	-		
1708240-02RE1	MM-MR_INT_17HC001_080117_POL_02_WB	0.285	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708240-03	MM-MR_INT_17HC001_080117_POL_03_WB	0.275	20	-	-	-		
1708240-03RE1	MM-MR_INT_17HC001_080117_POL_03_WB	0.275	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708240-04	MM-MR_INT_17HC001_080117_POL_04_WB	0.273	20	-	-	-		
1708240-04RE1	MM-MR_INT_17HC001_080117_POL_04_WB	0.273	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708240-05	MM-MR_INT_17HC001_080117_POL_05_WB	0.268	20	-	-	-		

Due Date: 11/15/2017

PREPARATION BENCH SHEET

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

1708240-05RE1	MM-MR_INT_17HC001_080117_POL_05_WB	0.268	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-01	ES-02E_17HC001_073117_POL_01_WB	0.26	20	QC	-	-	MS/MSD	
1708241-01RE1	ES-02E_17HC001_073117_POL_01_WB	0.26	20	QC	-	-	MS/MSD Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-02	ES-02E_17HC001_073117_POL_02_WB	0.269	20	-	-	-		
1708241-02RE1	ES-02E_17HC001_073117_POL_02_WB	0.269	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-03	ES-02E_17HC001_073117_POL_03_WB	0.287	20	-	-	-		
1708241-03RE1	ES-02E_17HC001_073117_POL_03_WB	0.287	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-04	ES-02E_17HC001_073117_POL_04_WB	0.26	20	-	-	-		
1708241-04RE1	ES-02E_17HC001_073117_POL_04_WB	0.26	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-05	ES-02E_17HC001_073117_POL_05_WB	0.273	20	-	-	-		
1708241-05RE1	ES-02E_17HC001_073117_POL_05_WB	0.273	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-11	BFK_17HC001_073117_POL_01_WB	0.26	20	-	-	-		
1708241-11RE1	BFK_17HC001_073117_POL_01_WB	0.26	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-12	BFK_17HC001_073117_POL_02_WB	0.255	20	-	-	-		
1708241-12RE1	BFK_17HC001_073117_POL_02_WB	0.255	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-13	BFK_17HC001_073117_POL_03_WB	0.257	20	-	-	-		
1708241-13RE1	BFK_17HC001_073117_POL_03_WB	0.257	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-14	BFK_17HC001_073117_POL_04_WB	0.254	20	-	-	-		
1708241-14RE1	BFK_17HC001_073117_POL_04_WB	0.254	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-15	BFK_17HC001_073117_POL_05_WB	0.258	20	-	-	-		
1708241-15RE1	BFK_17HC001_073117_POL_05_WB	0.258	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2

Due Date: 11/15/2017

PREPARATION BENCH SHEET

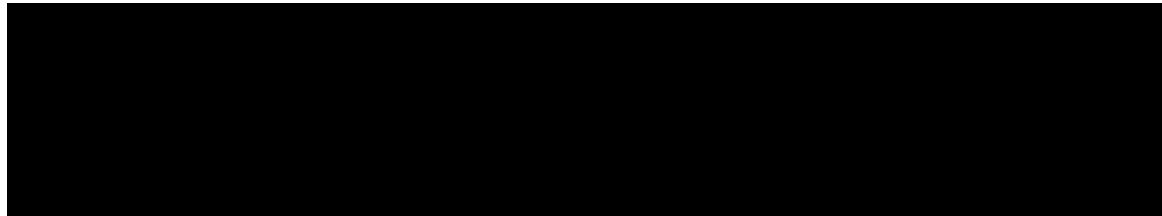
F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017



PREPARATION BENCH SHEET

2700-1

F710421

10/23/17 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710421-BLK1	Blank	0.25	20					
F710421-BLK2	Blank	0.25	20					
F710421-BLK3	Blank	0.25	20					
F710421-BLK4	Blank	0.282	20					Pre-homogenization Blank for 1708118/1708119
F710421-BLK5	Blank	0.27	20					Post-homogenization Blank for 1708118/1708119
F710421-BLK6	Blank	0.283	20					Pre-homogenization Blank for 1708240/1708241
F710421-BLK7	Blank	0.278	20					Pre-homogenization Blank for 1708240/1708241
F710421-BLK8	Blank	0.25	20					500X -
F710421-BLK9	Blank	0.25	20					500X -
F710421-BLKA	Blank	0.25	20					500X -
F710421-BLKB	Blank	0.282	20					500X -
F710421-BLKC	Blank	0.27	20					500X -
F710421-BLKD	Blank	0.283	20					500X -
F710421-BLKE	Blank	0.278	20					500X -
F710421-BS1	LCS	0.1259	20	1705412	125.9			
F710421-BS2	LCS	0.1259	20	1705412	125.9			
F710421-BS3	LCS	0.1259	20	1705412	125.9			1000X -
F710421-BSD1	LCS Dup	0.1275	20	1705412	127.5			
F710421-BSD2	LCS Dup	0.1275	20	1705412	127.5			
F710421-BSD3	LCS Dup	0.1275	20	1705412	127.5			1000X -
F710421-DUP1	Duplicate [1708118-01]	0.263	20					
F710421-DUP2	Duplicate [1708118-01RE1]	0.263	20					500X -
F710421-MS1	Matrix Spike [1708118-01]	0.262	20	1705977	100			

Due Date: 11/15/2017

PREPARATION BENCH SHEET

2700-1

10/23/17 DM

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

F710421-MS2	Matrix Spike [1708241-01]	0.275	20	1705977	100			
F710421-MS3	Matrix Spike [1708118-01RE1]	0.262	20	1705977	100			500X -
F710421-MS4	Matrix Spike [1708241-01RE1]	0.275	20	1705977	100			500X -
F710421-MSD1	Matrix Spike Dup [1708118-01]	0.256	20	1705977	100			
F710421-MSD2	Matrix Spike Dup [1708241-01]	0.265	20	1705977	100			
F710421-MSD3	Matrix Spike Dup [1708118-01RE1]	0.256	20	1705977	100			500X -
F710421-MSD4	Matrix Spike Dup [1708241-01RE1]	0.265	20	1705977	100			500X -

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
1705412	DORM-4	06-Jan-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705977	MHg New Primary 100 ng/mL spike	06-Jan-20 00:00	1704707	Acetate Buffer	29-Jan-18 00:00
		15-Sep-18 00:00	1705427	Methanol, HPLC Grade	08-Sep-20 00:00
			1705837	25% KOH/Methanol	03-Feb-18 00:00
			1706016	Ethylating Agent (For Methyl Mercury Analysis)	08-Apr-18 00:00

1706100

PREPARATION BENCH SHEET

2700-1
10/23/17 DM

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708118-01	OB-01_17HC001_072517_POL_01_WB	0.254	20	QC	-	-	MS/MSD	
1708118-01RE1	OB-01_17HC001_072517_POL_01_WB	0.254	20	QC	-	-	MS/MSD Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708118-02	OB-01_17HC001_072517_POL_02_WB	0.265	20	-	-	-		
1708118-02RE1	OB-01_17HC001_072517_POL_02_WB	0.265	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708118-03	OB-01_17HC001_072517_POL_03_WB	0.288	20	-	-	-		
1708118-03RE1	OB-01_17HC001_072517_POL_03_WB	0.288	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708118-04	OB-01_17HC001_072517_POL_04_WB	0.256	20	-	-	-		
1708118-04RE1	OB-01_17HC001_072517_POL_04_WB	0.256	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708118-05	OB-01_17HC001_072517_POL_05_WB	0.258	20	-	-	-		
1708118-05RE1	OB-01_17HC001_072517_POL_05_WB	0.258	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708240-01	MM-MR_INT_17HC001_080117_POL_01_WB	0.268	20	-	-	-		
1708240-01RE1	MM-MR_INT_17HC001_080117_POL_01_WB	0.268	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708240-02	MM-MR_INT_17HC001_080117_POL_02_WB	0.285	20	-	-	-		
1708240-02RE1	MM-MR_INT_17HC001_080117_POL_02_WB	0.285	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708240-03	MM-MR_INT_17HC001_080117_POL_03_WB	0.275	20	-	-	-		
1708240-03RE1	MM-MR_INT_17HC001_080117_POL_03_WB	0.275	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708240-04	MM-MR_INT_17HC001_080117_POL_04_WB	0.273	20	-	-	-		
1708240-04RE1	MM-MR_INT_17HC001_080117_POL_04_WB	0.273	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708240-05	MM-MR_INT_17HC001_080117_POL_05_WB	0.268	20	-	-	-		

Due Date: 11/15/2017

PREPARATION BENCH SHEET

2700-1

F710421

10/23/17 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

1708240-05RE1	MM-MR_INT_17HC001_080117_POL_05_WB	0.268	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-01	ES-02E_17HC001_073117_POL_01_WB	0.26	20	QC	-	-	MS/MSD		
1708241-01RE1	ES-02E_17HC001_073117_POL_01_WB	0.26	20	QC	-	-	MS/MSD Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-02	ES-02E_17HC001_073117_POL_02_WB	0.269	20	-	-	-			
1708241-02RE1	ES-02E_17HC001_073117_POL_02_WB	0.269	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-03	ES-02E_17HC001_073117_POL_03_WB	0.287	20	-	-	-			
1708241-03RE1	ES-02E_17HC001_073117_POL_03_WB	0.287	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-04	ES-02E_17HC001_073117_POL_04_WB	0.26	20	-	-	-			
1708241-04RE1	ES-02E_17HC001_073117_POL_04_WB	0.26	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-05	ES-02E_17HC001_073117_POL_05_WB	0.273	20	-	-	-			
1708241-05RE1	ES-02E_17HC001_073117_POL_05_WB	0.273	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-11	BFK_17HC001_073117_POL_01_WB	0.26	20	-	-	-			
1708241-11RE1	BFK_17HC001_073117_POL_01_WB	0.26	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-12	BFK_17HC001_073117_POL_02_WB	0.255	20	-	-	-			
1708241-12RE1	BFK_17HC001_073117_POL_02_WB	0.255	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-13	BFK_17HC001_073117_POL_03_WB	0.257	20	-	-	-			
1708241-13RE1	BFK_17HC001_073117_POL_03_WB	0.257	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-14	BFK_17HC001_073117_POL_04_WB	0.254	20	-	-	-			
1708241-14RE1	BFK_17HC001_073117_POL_04_WB	0.254	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-15	BFK_17HC001_073117_POL_05_WB	0.258	20	-	-	-			
1708241-15RE1	BFK_17HC001_073117_POL_05_WB	0.258	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X

Due Date: 11/15/2017

PREPARATION BENCH SHEET

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Due Date: 11/15/2017

Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)

Analyst: DON MORAN	Sequence #: 7J24016
Reviewer: R 10/24/17	Dataset ID #: MHG27001-171023-1
Date: 10/24/17	WO #: VARIOUS
Batch #(s): F710422, F710421	Client(s): VARIOUS

• Select the correct preparation method.

Additional Comments:

Analyte	Prep Method	Matrix
<input type="checkbox"/> MHg	SOP2797 MHg Distillation	Water
<input checked="" type="checkbox"/> MHg	SOP2986 KOH/MeOH Digest	Tissue
<input type="checkbox"/> MHg	SOP5134 MeCl Extraction	Sed/Soil
<input type="checkbox"/> DMHg	SOP2816 (None Accredited method)	ALL

Analyst Initials:

DM

Reviewer Initials:

R 10/24/17

- | | | | |
|---|--|--|---|
| 1. Compare Sample ID with Bench sheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Bench sheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Reviewer: 100% of peak heights checked | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Are there peak height errors? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (c) Error on a sample: Do peak heights, responses, & initial results match corrected data? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| (d) Error on a Cal Pt, ICB/CCB, or PB: Has the data been reimported? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| (e) Check standards & reagents in sequence & bench sheet for correct usage (i.e. expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (f) Check and compare masses (review prep bench sheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (g) Check and compare initial and final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (h) Do aliquots and dilutions written on benchsheet match those in Excel? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (i) Is the pH>3.0 for all distilled samples? _____ | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A |
| (j) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (k) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (l) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (m) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5. 20 or fewer samples in batch? _____ | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) 3 PBs, 1 LCS/LCSD (or BS/BSD), 2 MS/MSD/MD per batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) 1 CCV and 1 CCB every 10 analytical runs? _____ | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | |
| 6. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A |
| Comments: _____ | | | |
| 7. 1st Calibration Standard % Recoveries (65-135%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A |
| Comments: _____ | | | |
| 8. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |

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Analyst:	DON MORAN	Sequence #:	7J24016
Reviewer:	0 <i>R 10/24/17</i>	Dataset ID #:	MHG27001-171023-1
Date:	10/24/2017	WO #:	VARIOUS
Batch #(s):	F710422, F710421	Client(s):	VARIOUS

Analyst Initials:

DM

Reviewer Initials:

R 10/24/17

- | | | | |
|--|--|-------------------------------|---|
| 9. ICV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 10. CCV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 11. Are the absolute value of the ICB and CCBs < PQL? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 13. LCS/LCSD or BS/BSD RPD (< 25%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 14. Water: Average of Preparation Blanks < 0.045 ng/L and standard deviation of 0.015 ng/L? | <input type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 15. Sediment/Tissue: Individually, are the Preparation Blanks < PQL for the matrix? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| 16. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 17. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 18. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 19. MD RPD/MT RSD(< 35%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 20. Is there one set of MS/MSD per every 10 samples? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. MS/MSD RPD(< 35%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. MS (AS) % Recoveries (65-130%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. MSD (ASD) % Recoveries (65-130%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 25. Are all samples within instrument calibration range (or at maximum aliquot size)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. For instrumental dilutions, is the dilution factor in excel correct? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Is the sample volume, diluents, and final volume of the dilution noted on benchsheet? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 27. Dissolved < Total metals (if applicable) | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Effluent < Influent metals (visually confirm if needed) | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |

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Analyst: DON MORAN	Sequence #: 7J24016
Reviewer: 0 <i>R 10/24/17</i>	Dataset ID #: MHG27001-171023-1
Date: 10/24/2017	WO #: VARIOUS
Batch #(s): F710422, F710421	Client(s): VARIOUS

Analyst Initials:

DM

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R 10/24/17

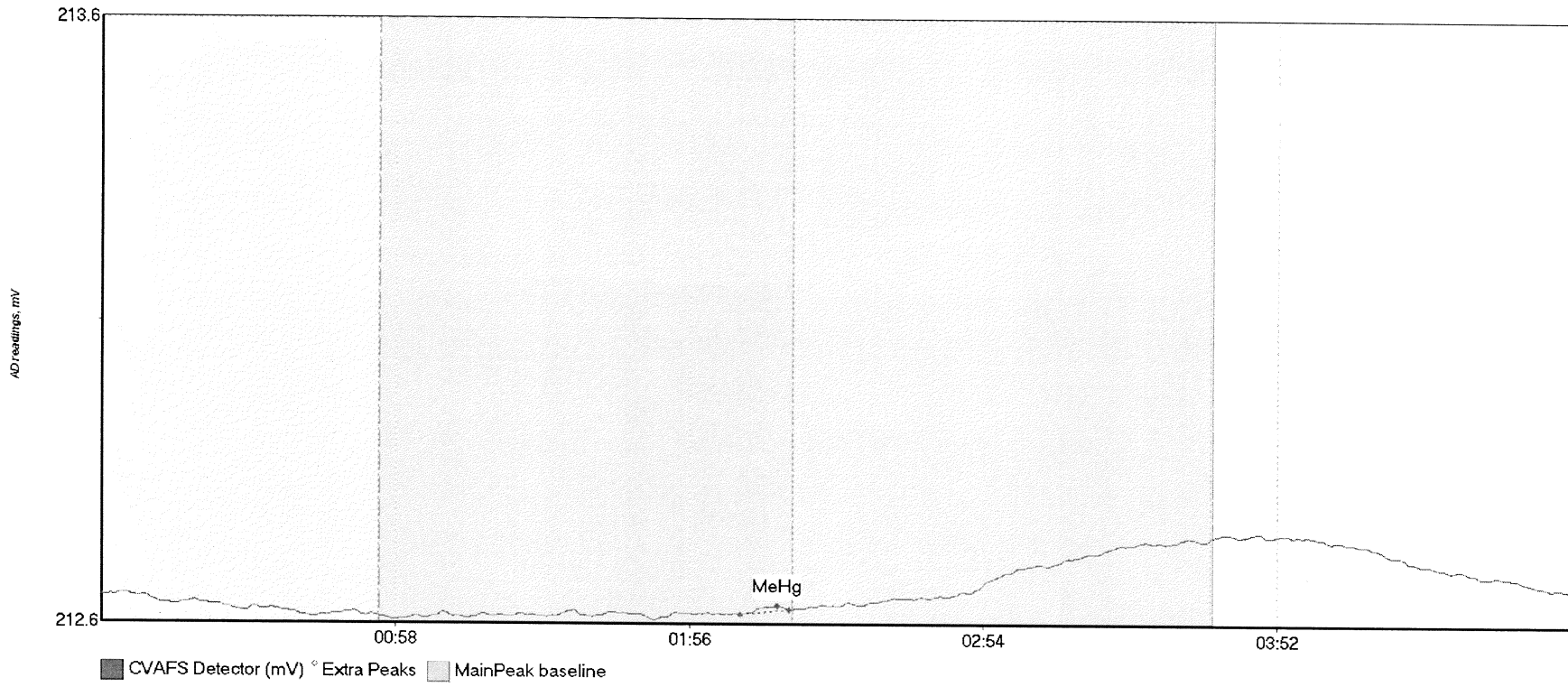
29. Are re-runs noted with reason? YES NO N/A
- Comments: _____
30. For failing QC (CCV, CCB, PB, BS/BSD, CAL): YES NO N/A
- Was a bubbler and trap test run before the analytical run continued?
- Comments: _____
31. Do re-run results compare to initial analysis (< 35% RPD)? YES NO N/A
- Comments: _____
32. Are qualifiers consistent with the data review flowcharts? YES NO N/A
- Comments: _____
33. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
- Comments: _____
34. Have re-extracts been created for non-reportable samples? YES NO N/A
35. Narrations in MMO box in LIMS?
- Comments: _____
36. Are there any HIGH QA projects within the data? YES NO
- If so, place dataset to the QA office.
37. Does the data set need scanning? YES N/A
- Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs**
38. Date of analyst IDOC/CDOC: 6/13/2017 IDOC/CDOC within last 12 months? YES NO
39. Date of analyst's SOP reading: 2/9/2017 Current SOP revision? YES NO
40. Date of LOD: 4/24/2017 LOD within last 3 months (within 12 months for MDN)? YES NO N/A
41. Date of LOQ: 4/24/2017 LOQ within last 3 months (within 12 months for MDN)? YES NO N/A
42. If MDN samples, date of last MDL study: _____
43. MDL study within last 12 months? YES NO N/A
- Data can not be reported without a current IDOC/CDOC, LOD or LOQ.**
- Additional Comments: YES NO

MethylMercury EPA1630 Operat DM BlankSub: Calib Eqn: Run Date: ##### Blank SD: Workst MHG27 CalibFactor: Status: Calblank error: Zero Pe: Run Time: 0:00:00 Blank RSD%: Methoc 2010-01 R: R?: CalibAnalyte: CF SD: Descrif MHG27001-171023-1 CF RSD%:

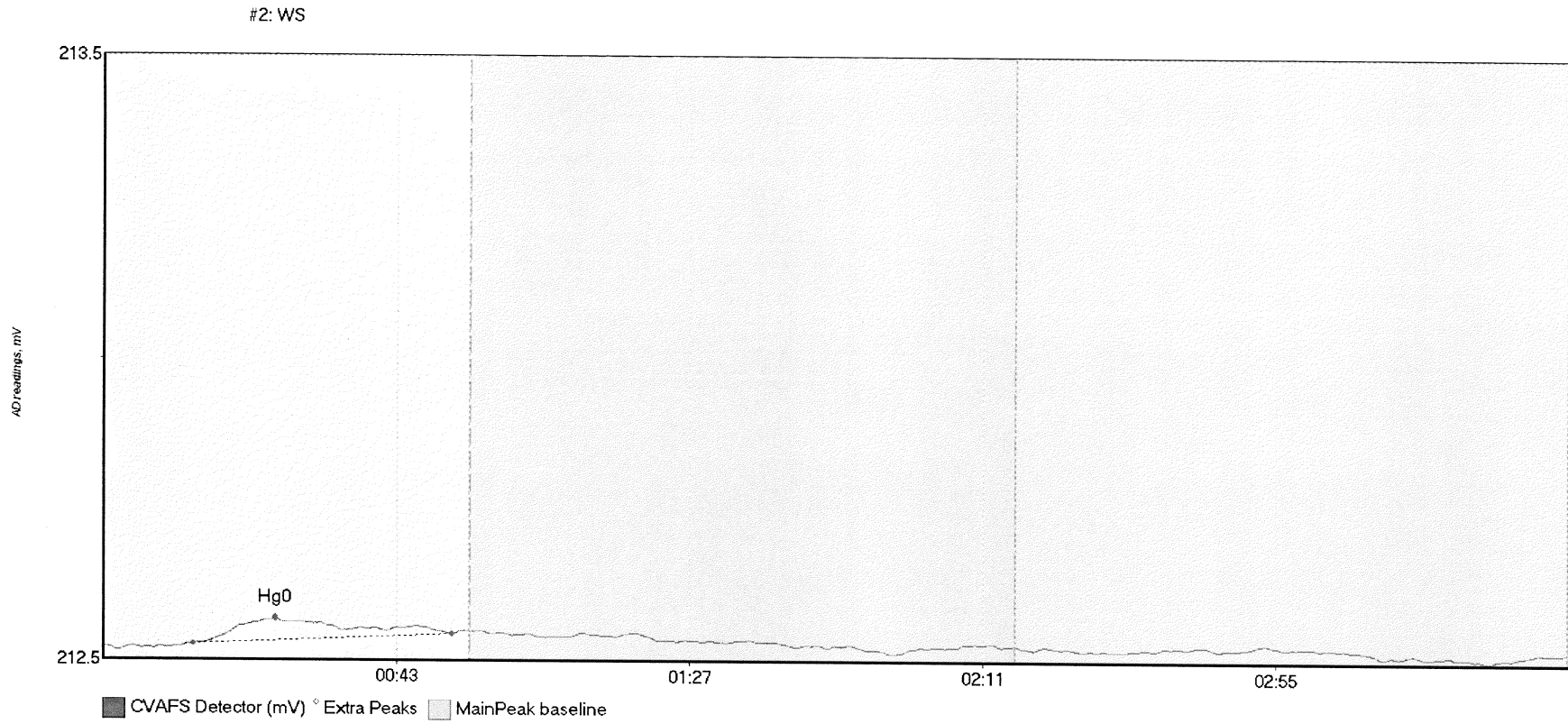
Sample/ID	Locator	Rinse	Dilute	Blank	ConcHq(p)	ConcMeHq	ConcHq2(p)	ConcPrHq(r)	Rec%	QA	RawData	RunEnd	PeakHq0 (Raw)	PeakMeHq (R)	PeakHq2(Raw)	PeakPrHq(Raw)	Control (etf)	Flags	RunCount
Clear																			
WS	A1										26855-1.RAW	11:08:29	0.00	0.51	0.00	0.00	cleandry	OK	1
SEQ-1BL1	A2			1							26856-1.RAW	11:19:00	7.07	0.00	0.00	0.00	psample10	OK	1
SEQ-CAL1	A3			1							26857-1.RAW	11:29:31	6.28	0.00	6.52	0.00	psample10	OK	1
SEQ-CAL2	A4			1							26858-1.RAW	11:40:01	4.38	22.10	0.00	0.00	psample10	OK	1
SEQ-CAL3	A5			1							26859-1.RAW	11:50:32	7.39	95.18	0.81	0.00	psample10	CT	1
SEQ-CAL4	A6			1							26860-1.RAW	12:01:03	8.99	598.88	10.47	0.00	psample10	CT	1
SEQ-CAL5	A7			1							26861-1.RAW	12:11:33	4.72	1048.39	32.56	0.00	psample10	OK	1
SEQ-ICV1	A8			1							26862-1.RAW	12:22:04	16.74	2248.59	37.21	0.00	psample10	CT	1
SEQ-ICB1	A9			1							26863-1.RAW	12:32:35	3.99	269.01	0.23	0.00	psample10	OK	1
F710422-BS1	A12		1000								26864-1.RAW	12:43:05	4.93	1.65	0.57	0.00	psample10	CT	1
F710422-BSD1	A13		1000								26865-1.RAW	12:53:36	3.67	1011.88	121.97	0.00	psample10	OK	1
F710421-BS3	A10		1000								26866-1.RAW	13:04:07	6.91	1057.63	130.24	0.00	psample10	OK	1
F710421-BSD3	A11		1000								26867-1.RAW	13:14:37	4.36	923.22	108.89	0.00	psample10	OK	1
F710422-BLK1	A14		500								26868-1.RAW	13:25:08	5.14	933.19	114.52	0.00	psample10	OK	1
F710422-BLK2	A15		500								26869-1.RAW	13:35:39	2.84	3.71	1.90	0.00	psample10	OK	1
F710422-BLK3	A16		500								26870-1.RAW	13:46:10	2.07	0.00	0.00	0.00	psample10	OK	1
*F710422-BLK4	A17		500								26871-1.RAW	13:56:40	2.41	1.46	7.19	0.00	psample10	OK	1
F710422-DUP1	A18		500								26872-1.RAW	14:07:11	3.78	0.00	3.40	0.00	psample10	CT	1
F710422-MS1	A19		500								26873-1.RAW	14:17:41	5.11	224.96	302.50	0.00	psample10	OK	1
SEQ-CCV1	A20		1								26874-1.RAW	14:28:12	13.48	778.26	303.03	0.00	psample10	OK	1
SEQ-CCB1	A21		1								26875-1.RAW	14:38:43	8.22	251.53	0.00	0.00	psample10	CT	1
F710422-MSD1	B1		500								26876-1.RAW	14:49:14	2.98	0.00	0.00	0.00	psample10	OK	1
F710422-MS2	B2		500								26877-1.RAW	14:59:44	9.52	819.16	306.46	0.00	psample10	CT	1
F710422-MSD2	B3		500								26878-1.RAW	15:10:15	7.60	695.85	198.12	0.00	psample10	OK	1
1708240-06	B4		500								26879-1.RAW	15:20:46	10.67	649.81	187.38	0.00	psample10	OK	1
1708240-07	B5		500								26880-1.RAW	15:31:16	10.64	226.61	229.53	0.00	psample10	OK	1
1708240-08	B6		500								26881-1.RAW	15:41:47	13.08	87.36	478.45	0.00	psample10	OK	1
1708240-09	B7		500								26882-1.RAW	15:52:18	10.01	161.10	293.51	0.00	psample10	OK	1
1708240-10	B8		500								26883-1.RAW	16:02:48	9.46	64.49	223.13	0.00	psample10	OK	1
1708240-11	B9		500								26884-1.RAW	16:13:19	11.02	233.22	240.27	0.00	psample10	OK	1
1708240-12	B10		500								26885-1.RAW	16:23:50	10.22	190.23	166.29	0.00	psample10	CT	1
SEQ-CCV2	B11		1								26886-1.RAW	16:34:20	9.04	131.76	174.95	0.00	psample10	OK	1
SEQ-CCB2	B12		1								26887-1.RAW	16:44:51	8.29	227.78	1.20	0.00	psample10	CT	1
1708240-13	B13		500								26888-1.RAW	16:55:22	7.15	1.63	3.28	0.00	psample10	OK	1
1708240-14	B14		500								26889-1.RAW	17:05:52	4.11	122.57	154.21	0.00	psample10	OK	1
1708240-15	B15		500								26890-1.RAW	17:16:23	7.29	128.35	150.31	0.00	psample10	OK	1
1710535-02	B16		500								26891-1.RAW	17:26:54	9.36	157.87	204.16	0.00	psample10	OK	1
1710626-01	B17		500								26892-1.RAW	17:37:24	6.08	276.79	3.17	0.00	psample10	OK	1
F710421-BLK8	B18		500								26893-1.RAW	17:47:55	9.35	75.51	386.86	0.00	psample10	OK	1
F710421-BLK9	B19		500								26894-1.RAW	17:58:26	3.77	0.00	10.09	0.00	psample10	OK	1
F710421-BLK A	B20		500								26895-1.RAW	18:08:56	2.88	0.00	4.42	0.00	psample10	OK	1
*F710421-BLK B	B21		500								26896-1.RAW	18:19:27	2.57	0.00	5.39	0.00	psample10	OK	1
*F710421-BLK C	C1		500								26897-1.RAW	18:29:58	2.78	0.00	15.28	0.00	psample10	OK	1
SEQ-CCV3	C2		1								26898-1.RAW	18:40:28	5.46	0.00	4.04	0.00	psample10	CT	1
SEQ-CCB3	C3		1								26899-1.RAW	18:50:59	6.21	242.66	3.64	0.00	psample10	CT	1
*F710421-BLK D	C4		500								26900-1.RAW	19:01:31	4.96	0.00	3.81	0.00	psample10	CT	1
*F710421-BLK E	C5		500								26901-1.RAW	19:12:02	3.76	0.00	0.00	0.00	psample10	OK	1
F710421-DUP2	C6		500								26902-1.RAW	19:22:32	5.16	0.00	5.87	0.00	psample10	OK	1
F710421-MS3	C7		500								26903-1.RAW	19:33:03	3.90	130.01	256.09	0.00	psample10	OK	1
F710421-MSD3	C8		500								26904-1.RAW	19:43:34	6.62	714.19	291.92	0.00	psample10	OK	1
F710421-MS4	C9		500								26905-1.RAW	19:54:05	10.42	689.63	280.91	0.00	psample10	OK	1
F710421-MSD4	C10		500								26906-1.RAW	20:04:35	14.32	685.13	539.44	0.00	psample10	OK	1
1708118-01RE1	C11		500								26907-1.RAW	20:15:06	13.99	677.20	480.20	0.00	psample10	CT	1
1708118-02RE1	C12		500								26908-1.RAW	20:25:37	9.81	130.52	267.17	0.00	psample10	CT	1
1708118-03RE1	C13		500								26909-1.RAW	20:36:08	8.67	103.62	237.03	0.00	psample10	OK	1
SEQ-CCV4	C14		1								26910-1.RAW	20:46:38	12.14	189.70	294.35	0.00	psample10	CT	1
SEQ-CCB4	C15		1								26911-1.RAW	20:57:09	3.93	251.68	1.60	0.00	psample10	OK	1
1708118-04RE1	C16		500								26912-1.RAW	21:07:40	3.59	0.00	2.41	0.00	psample10	OK	1
1708118-05RE1	C17		500								26913-1.RAW	21:18:11	9.47	138.47	261.11	0.00	psample10	OK	1
1708240-01RE1	C18		500								26914-1.RAW	21:28:41	11.66	165.02	304.68	0.00	psample10	CT	1
1708240-02RE1	C19		500								26915-1.RAW	21:39:12	12.21	105.10	413.67	0.00	psample10	CT	1
1708240-03RE1	C20		500								26916-1.RAW	21:49:43	13.50	61.17	344.52	0.00	psample10	OK	1
1708240-04RE1	C21		500								26917-1.RAW	22:00:14	7.37	81.17	304.95	0.00	psample10	OK	1
1708240-05RE1	A1		500								26918-1.RAW	22:10:44	13.01	110.10	590.35	0.00	psample10	CT	1
1708241-01RE1	A2		500								26919-1.RAW	22:21:15	13.59	84.78	509.21	0.00	psample10	OK	1
1708241-02RE1	A3		500								26920-1.RAW	22:31:46	5.03	83.44	71.19	0.00	psample10	OK	1
1708241-03RE1	A4		500								26921-1.RAW	22:42:17	6.15	165.28	179.98	0.00	psample10	OK	1
SEQ-CCV5	A5		1								26922-1.RAW	22:52:47	11.31	169.80	312.66	0.00	psample10	CT	1
SEQ-CCB5	A6		1								26923-1.RAW	23:03:18	6.93	269.03	4.57	0.00	psample10	OK	1
1708241-04RE1	A7		500								26924-1.RAW	23:13:49	4.99	0.00	3.05	0.00	psample10	OK	1
1708241-05RE1	A8		500								26925-1.RAW	23:24:19	9.56	240.26	350.79	0.00	psample10	OK	1
1708241-11RE1	A9		500								26926-1.RAW	23:34:50	14.06	153.08	876.27	0.00	psample10	CT	1
1708241-12RE1	A10		500								26927-1.RAW	23:45:21	6.88	128.74	147.46	0.00	psample10	OK	1
											26928-1.RAW	23:55:52	7.01	115.14	185.07	0.00	psample10	OK	1

1708241-13RE1	A11	500										
1708241-14RE1	A12	500	26929-1.RAW	0:06:23	9.66	106.42	78.53	0.00	psample10	OK	1	
1708241-15RE1	A13	500	26930-1.RAW	0:16:53	6.76	44.90	127.60	0.00	psample10	OK	1	
SEQ-CCV6	A14	1	26931-1.RAW	0:27:24	7.17	127.98	229.20	0.00	psample10	OK	1	
SEQ-CCB6	A15	1	26932-1.RAW	0:37:55	8.71	268.68	99.38	0.00	psample10	OK	1	
			26933-1.RAW	0:48:25	4.73	0.00	2.49	0.00	psample10	OK	1	

#1: Clean

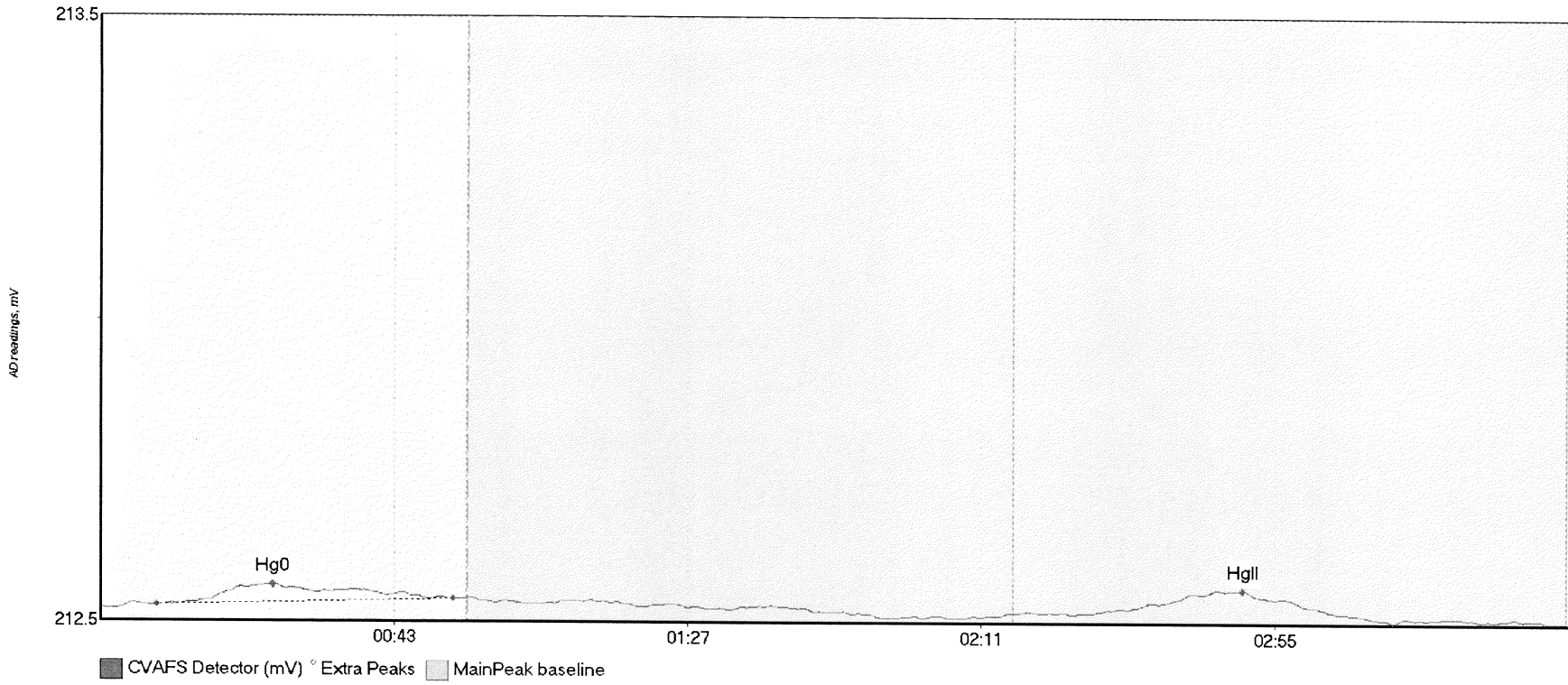


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean	0.507	126.5	136.2	212.64	212.65	133.9	0.014	OK	212.6722	0.00	0.01	017



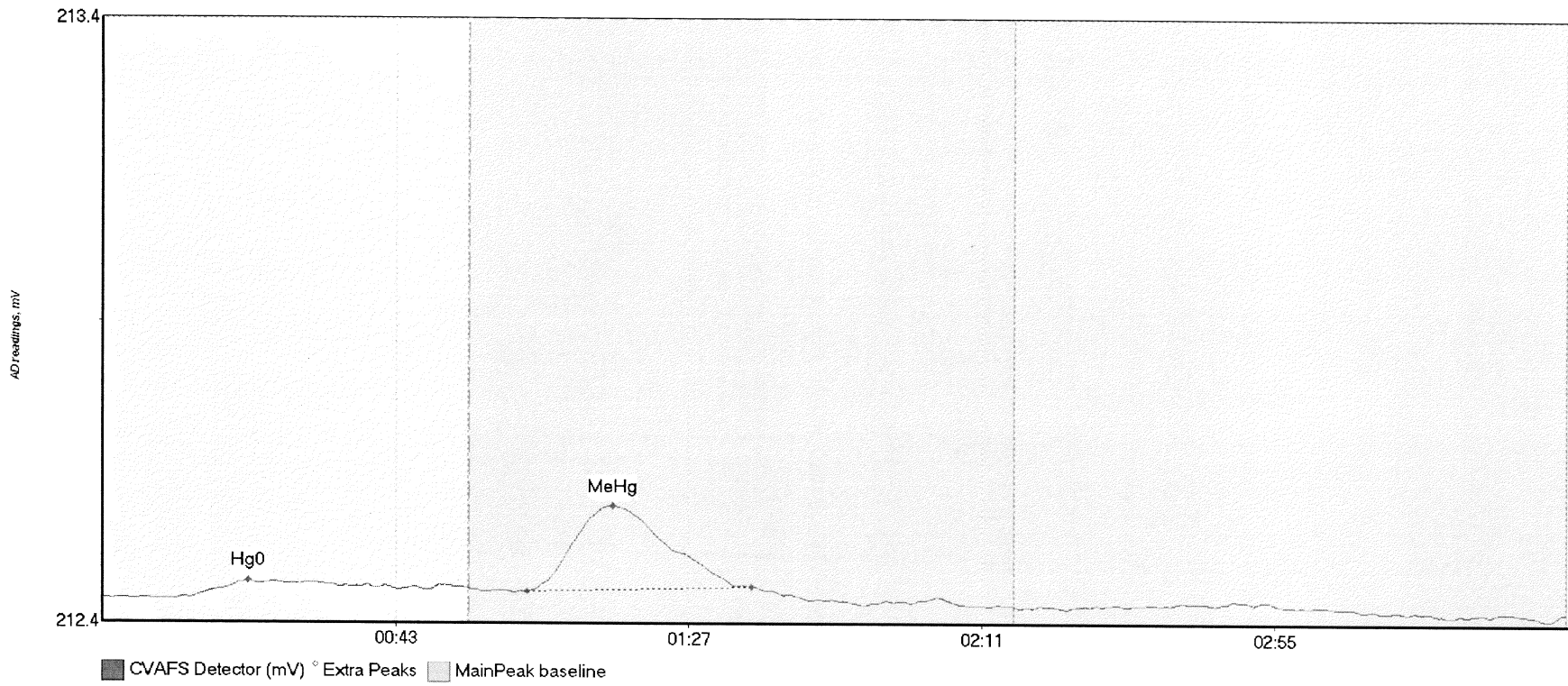
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS	7.073	13.4	52.3	212.56	212.57	25.7	0.042	OK	212.5524	0.00	-0.01	017

#3: SEQ-IBL1



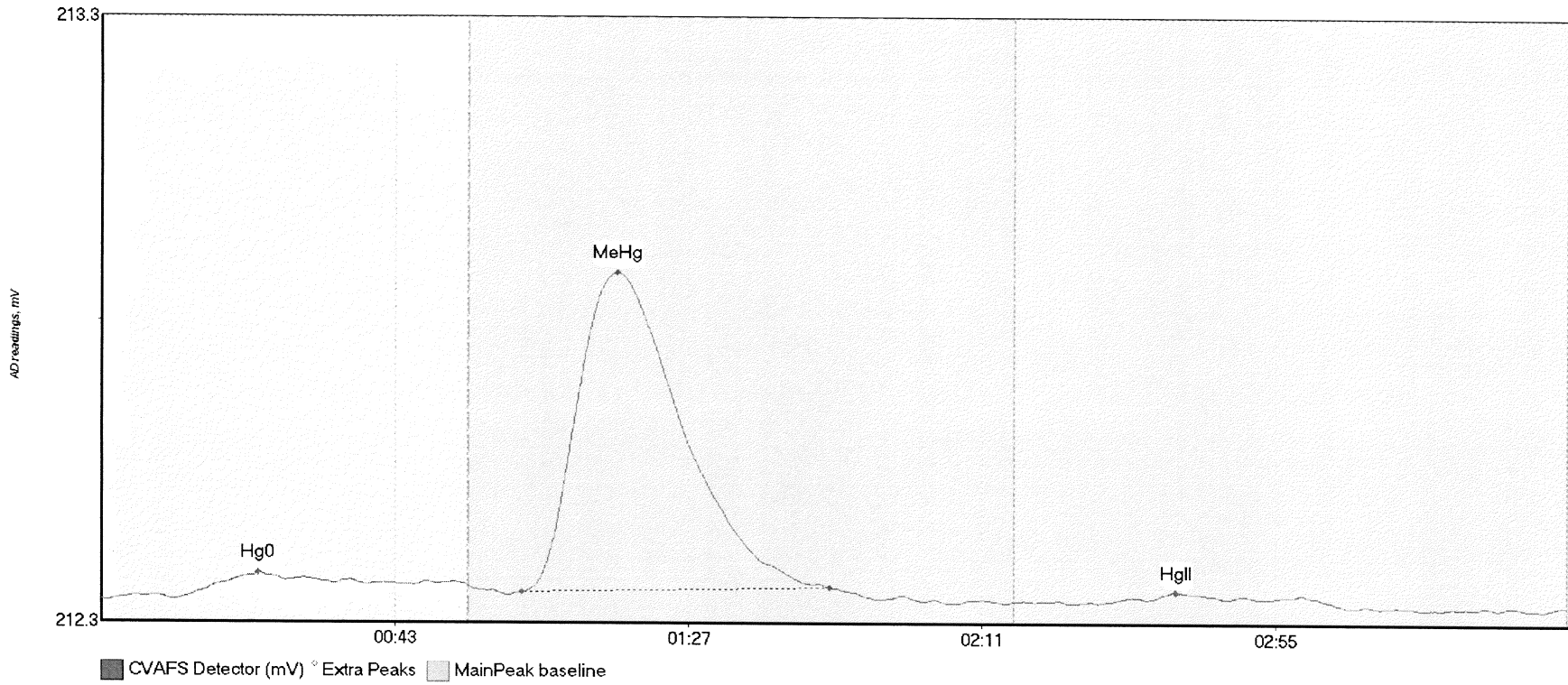
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	6.284	8.5	52.8	212.50	212.51	25.8	0.036	OK	212.4941	0.00	-0.02	
SEQ-IBL1 HgII	6.525	149.8	184.5	212.49	212.49	171.2	0.037	OK	212.4941	0.00	-0.02	017

#4: SEQ-CAL1



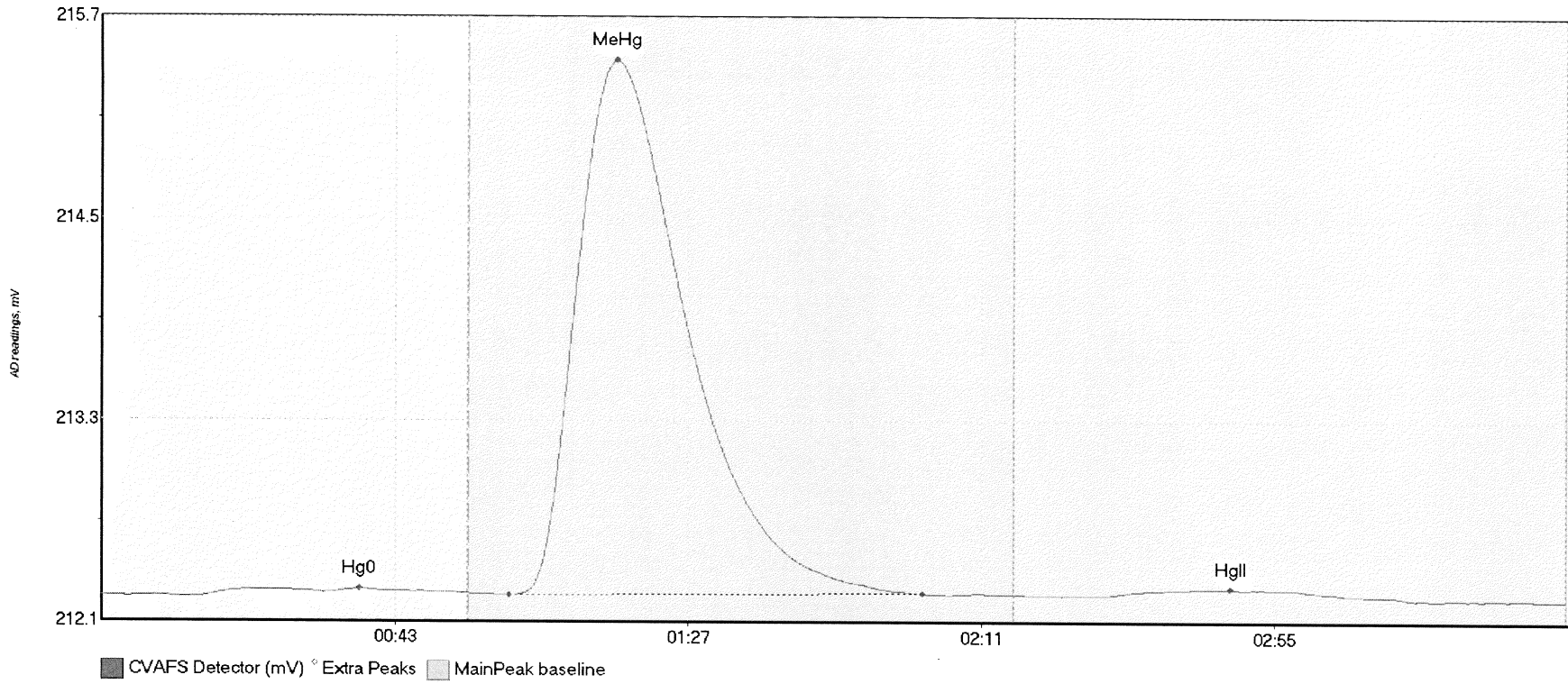
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	4.376	13.1	48.9	212.42	212.44	21.9	0.027	OK	212.4204	0.00	-0.02	
SEQ-CAL1 MeHg	22.096	63.7	97.4	212.43	212.44	76.6	0.142	OK	212.4204	0.00	-0.02	017

#5: SEQ-CAL2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	7.386	10.9	55.0	212.34	212.37	23.5	0.043	CT	212.3426	0.00	-0.01	
SEQ-CAL2 MeHg	95.176	63.0	109.2	212.35	212.36	77.3	0.530	OK	212.3426	0.00	-0.01	017
SEQ-CAL2 HgII	0.806	156.8	168.8	212.35	212.35	161.2	0.013	OK	212.3426	0.00	-0.01	

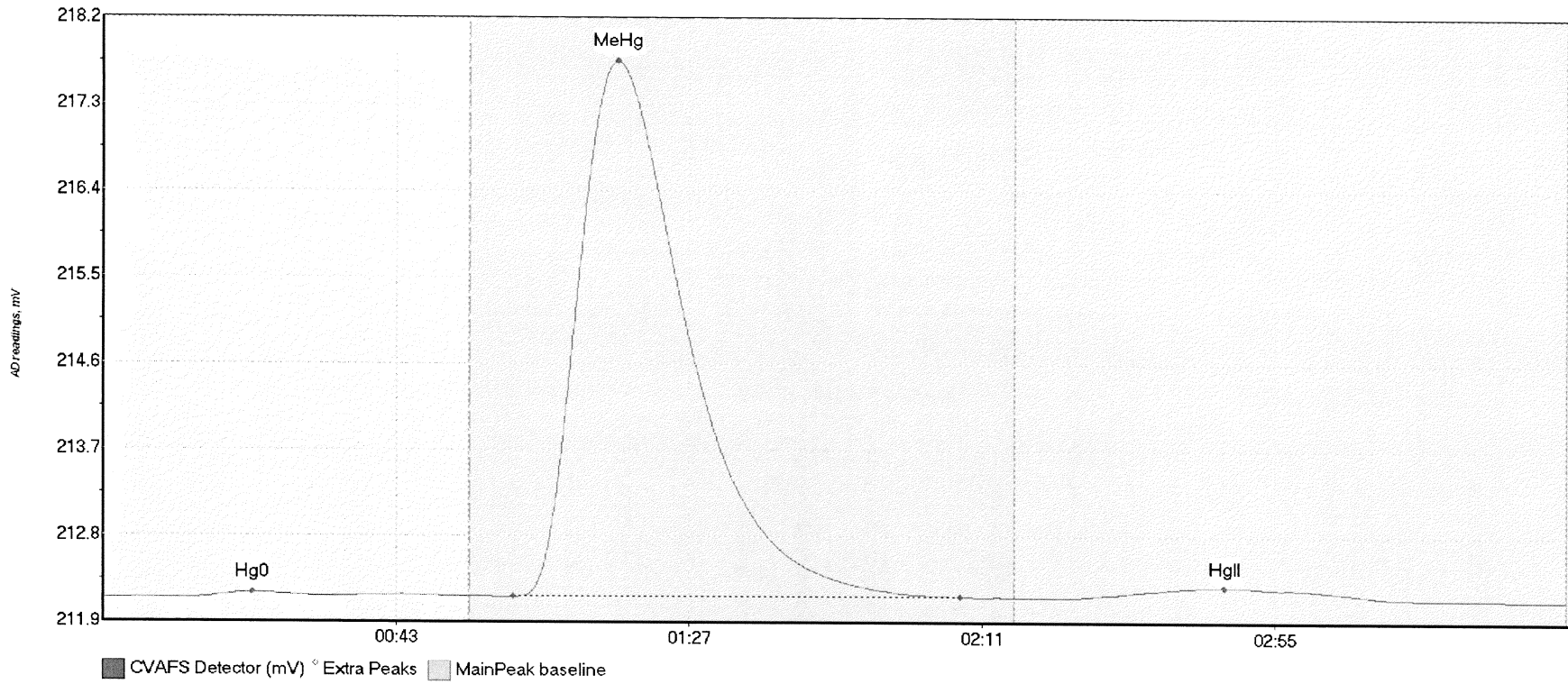
#6: SEQ-CAL3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	8.989	14.0	55.0	212.27	212.29	38.6	0.047	CT	212.2781	0.00	-0.02	
SEQ-CAL3 MeHg	598.877	61.1	123.2	212.28	212.29	77.3	3.134	OK	212.2781	0.00	-0.02	
SEQ-CAL3 HgII	10.470	150.0	187.6	212.28	212.28	169.4	0.040	OK	212.2781	0.00	-0.02	

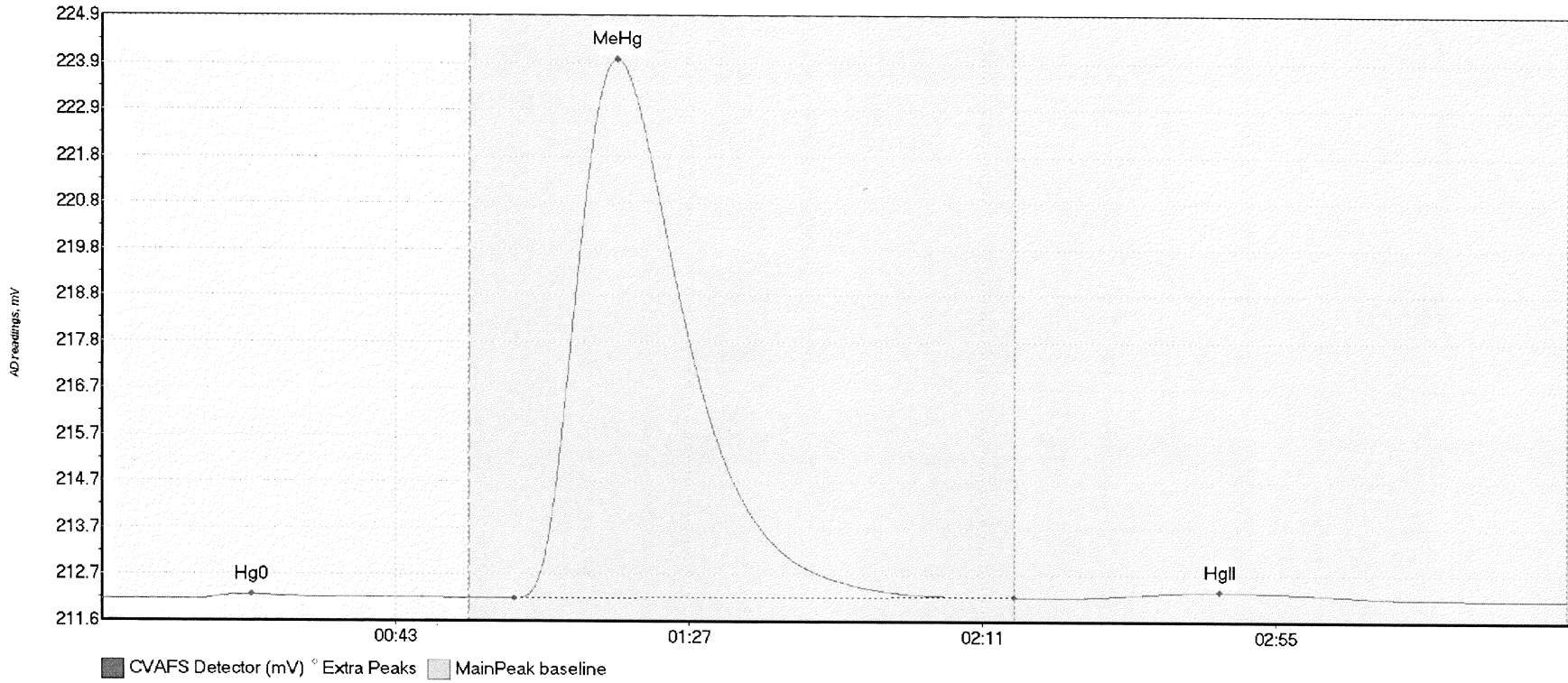
017

#7: SEQ-CAL4



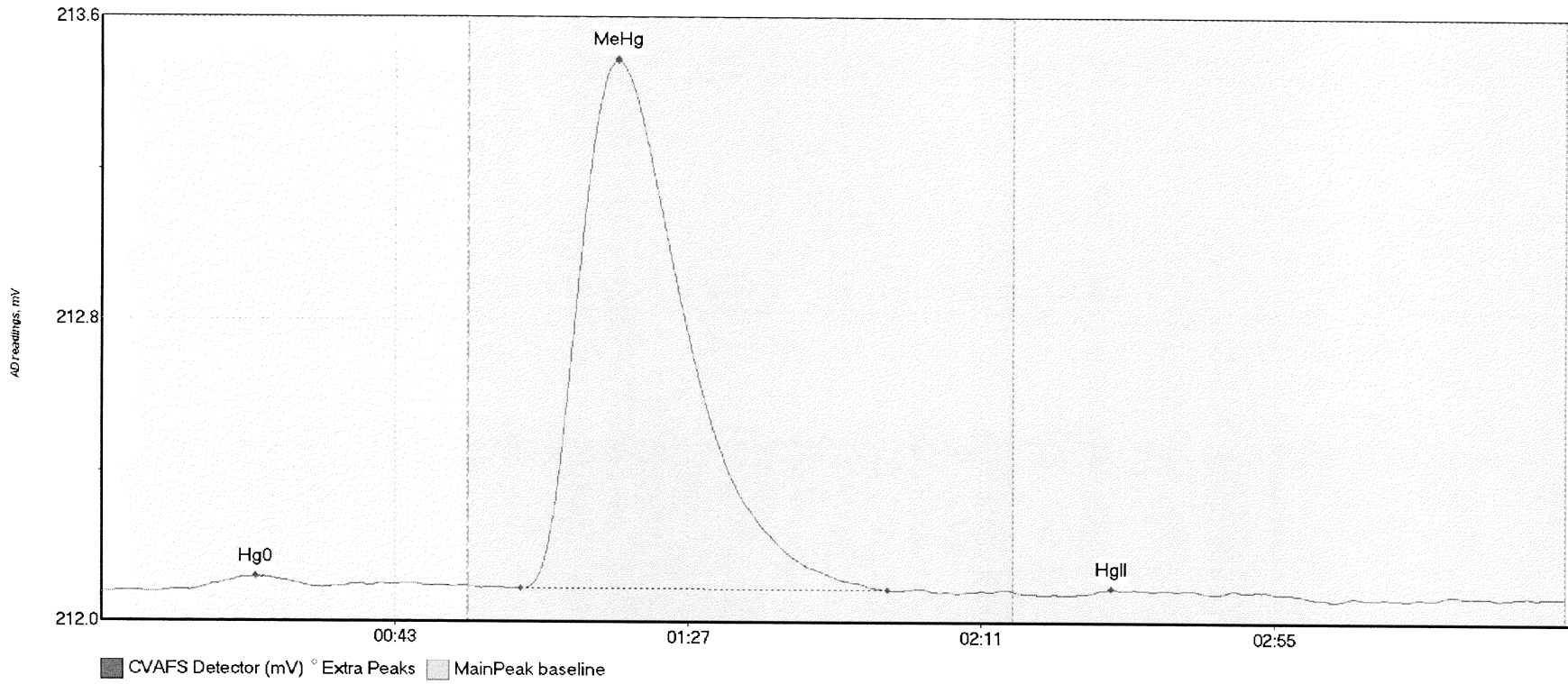
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	4.718	13.8	34.8	212.19	212.20	22.5	0.050	OK	212.1886	0.00	-0.02	
SEQ-CAL4 MeHg	1048.395	61.6	128.8	212.20	212.20	77.3	5.542	OK	212.1886	0.00	-0.02	
SEQ-CAL4 HgII	32.555	145.9	193.8	212.20	212.19	168.4	0.108	OK	212.1886	0.00	-0.02	

#8: SEQ-CAL5



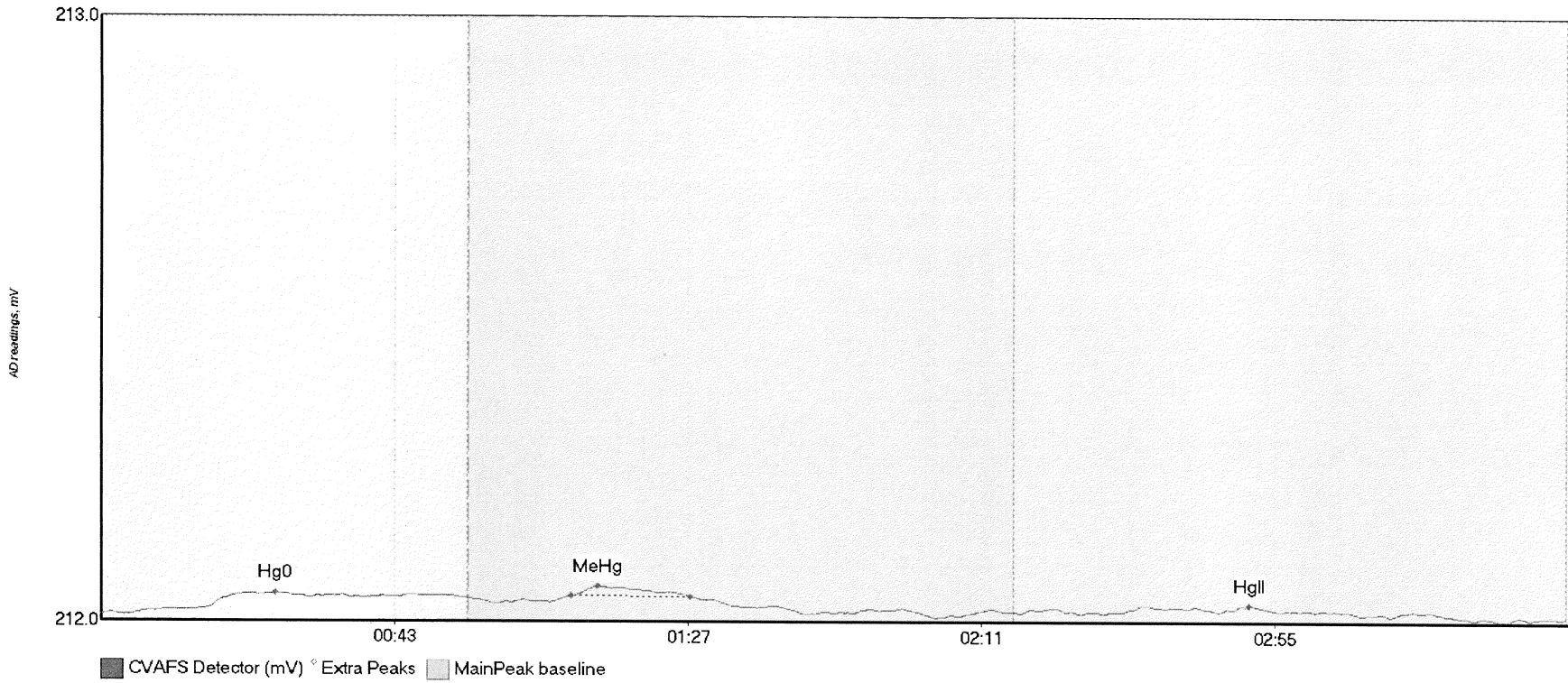
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	16.742	11.7	54.8	212.12	212.15	22.5	0.096	OK	212.1208	0.00	0.01	
SEQ-CAL5 MeHg	2248.586	61.7	136.8	212.14	212.18	77.2	11.807	CT	212.1208	0.00	0.01	017
SEQ-CAL5 HgII	37.213	147.6	195.7	212.18	212.15	167.6	0.119	OK	212.1208	0.00	0.01	

#9: SEQ-ICV1



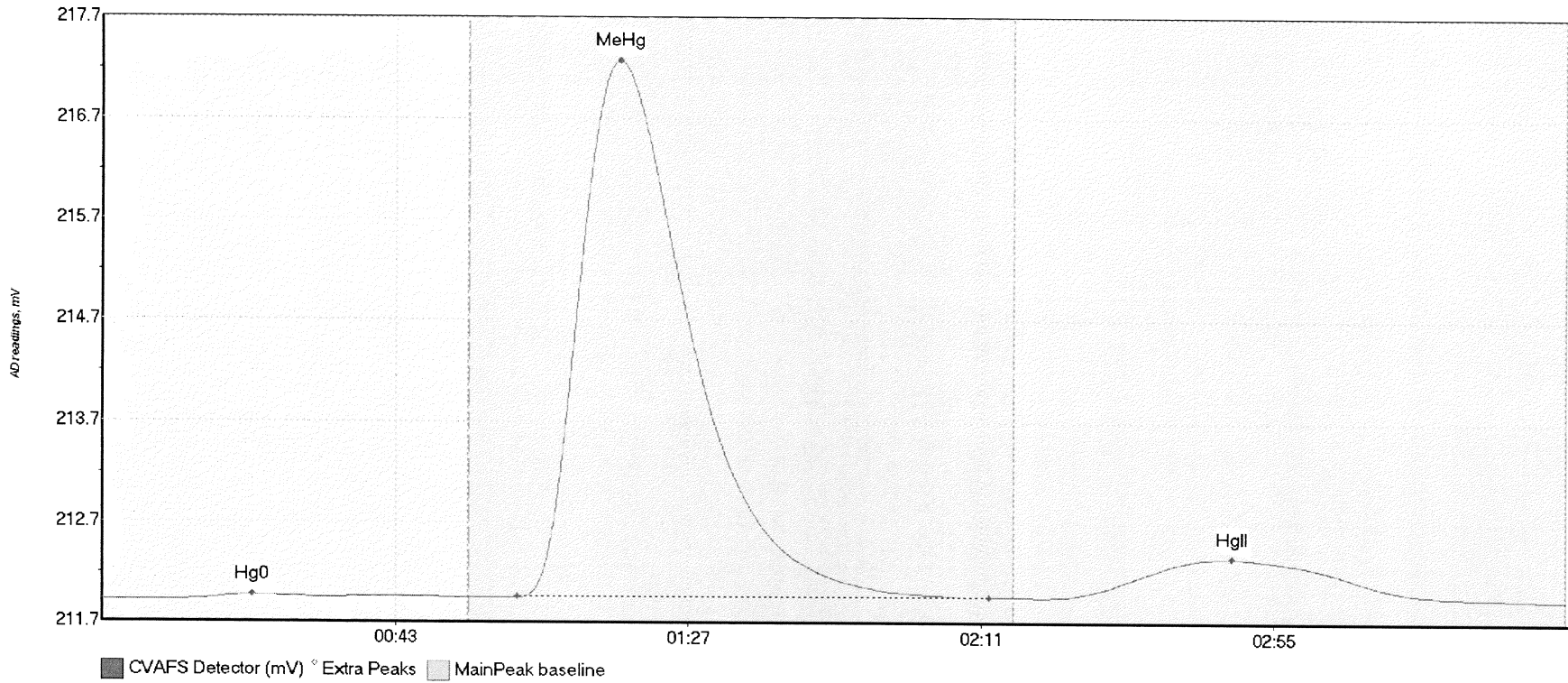
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-ICV1 Hg0	3.988	8.8	33.2	212.06	212.07	23.2	0.041	OK	212.0602	0.00	-0.01	
SEQ-ICV1 MeHg	269.005	62.9	118.0	212.07	212.07	77.4	1.457	OK	212.0602	0.00	-0.01	
SEQ-ICV1 HgII	0.225	147.8	153.6	212.06	212.07	151.6	0.013	OK	212.0602	0.00	-0.01	

#10: SEQ-ICB1



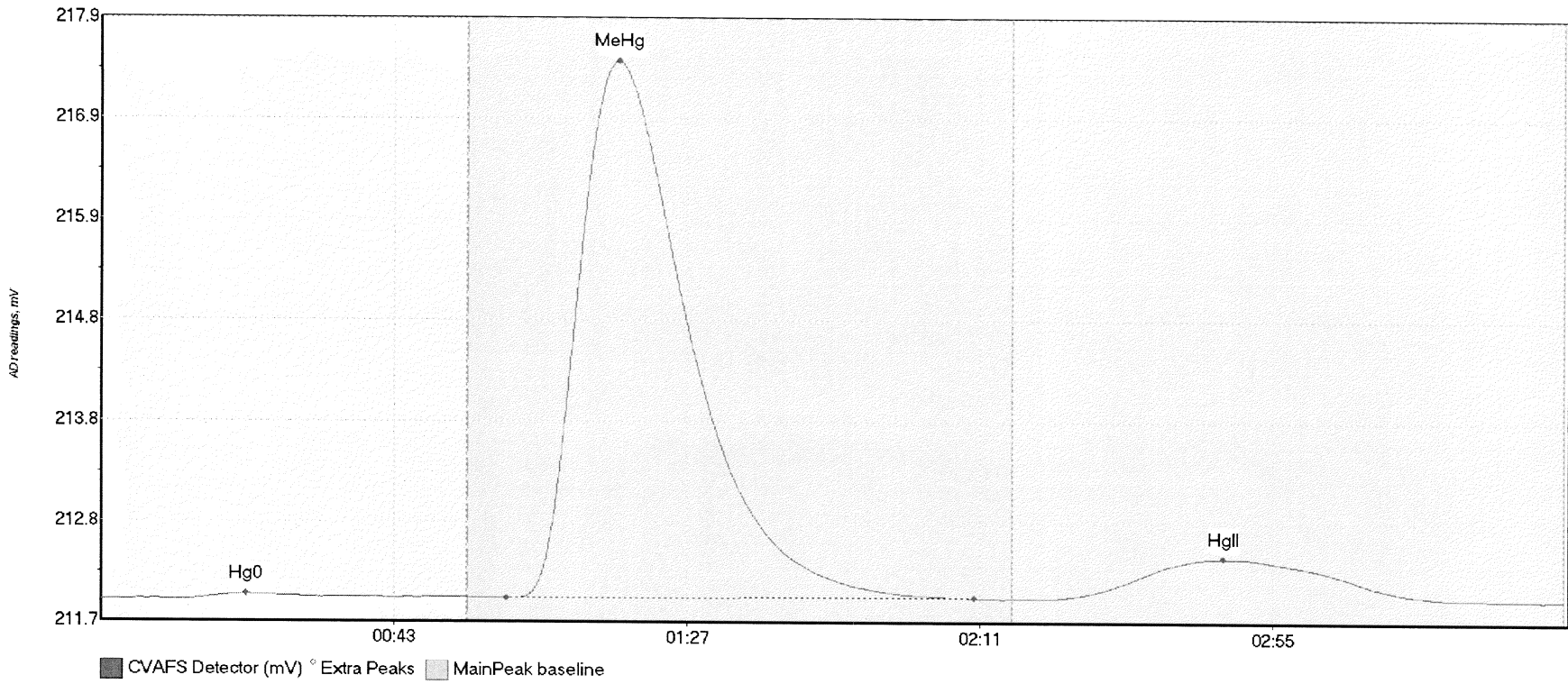
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	4.931	8.3	55.0	212.01	212.03	26.1	0.030	CT	212.0003	0.00	0.00	
SEQ-ICB1 MeHg	1.646	70.4	88.3	212.03	212.03	74.5	0.016	OK	212.0003	0.00	0.00	
SEQ-ICB1 HgII	0.565	167.6	176.9	212.00	212.00	172.2	0.011	OK	212.0003	0.00	0.00	

#11: F710422-BS1



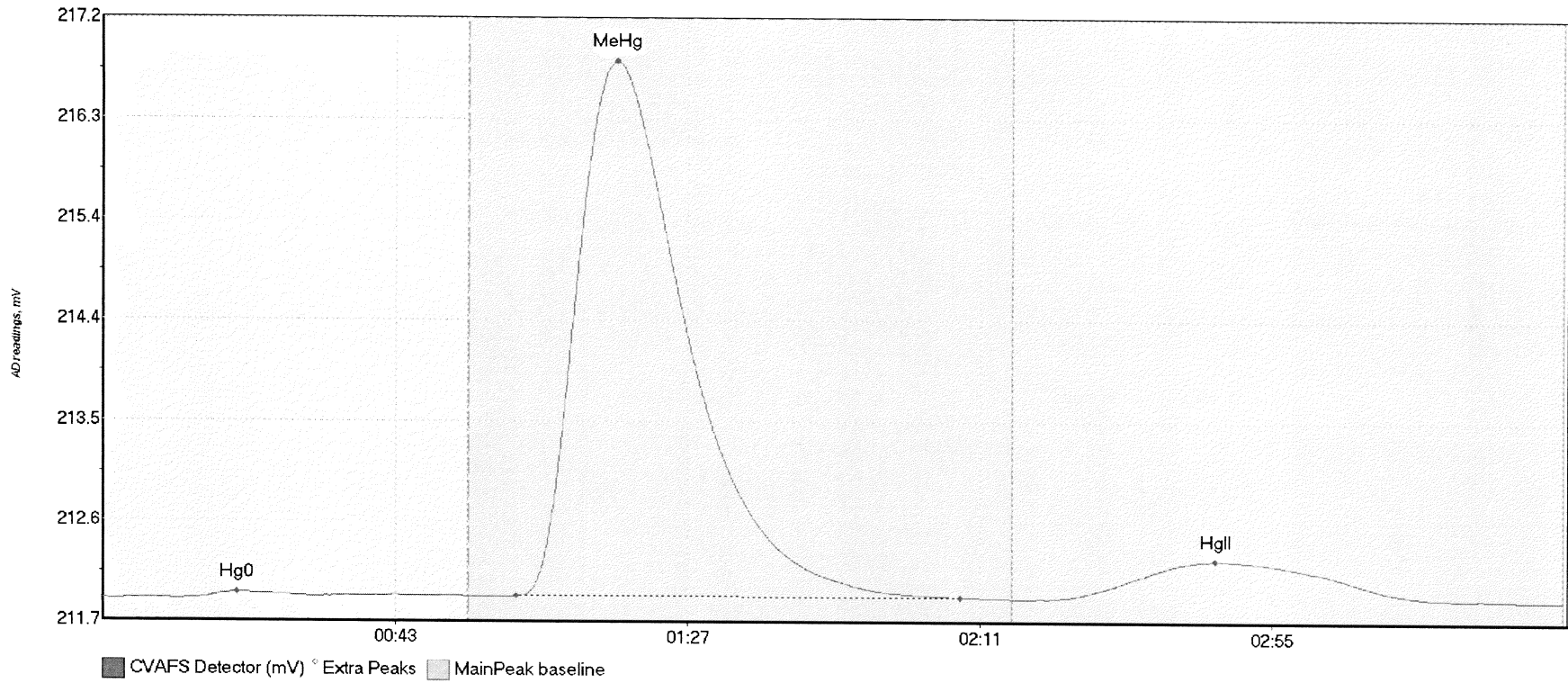
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-BS1 Hg0	3.670	14.7	34.3	211.97	211.99	22.6	0.043	OK	211.9651	0.00	0.01	
F710422-BS1 MeH	1011.881	62.3	133.1	211.99	211.99	77.7	5.280	OK	211.9651	0.00	0.01	
F710422-BS1 HgI	121.966	143.9	204.8	212.00	211.99	169.8	0.391	OK	211.9651	0.00	0.01	

#12: F710422-BSD1



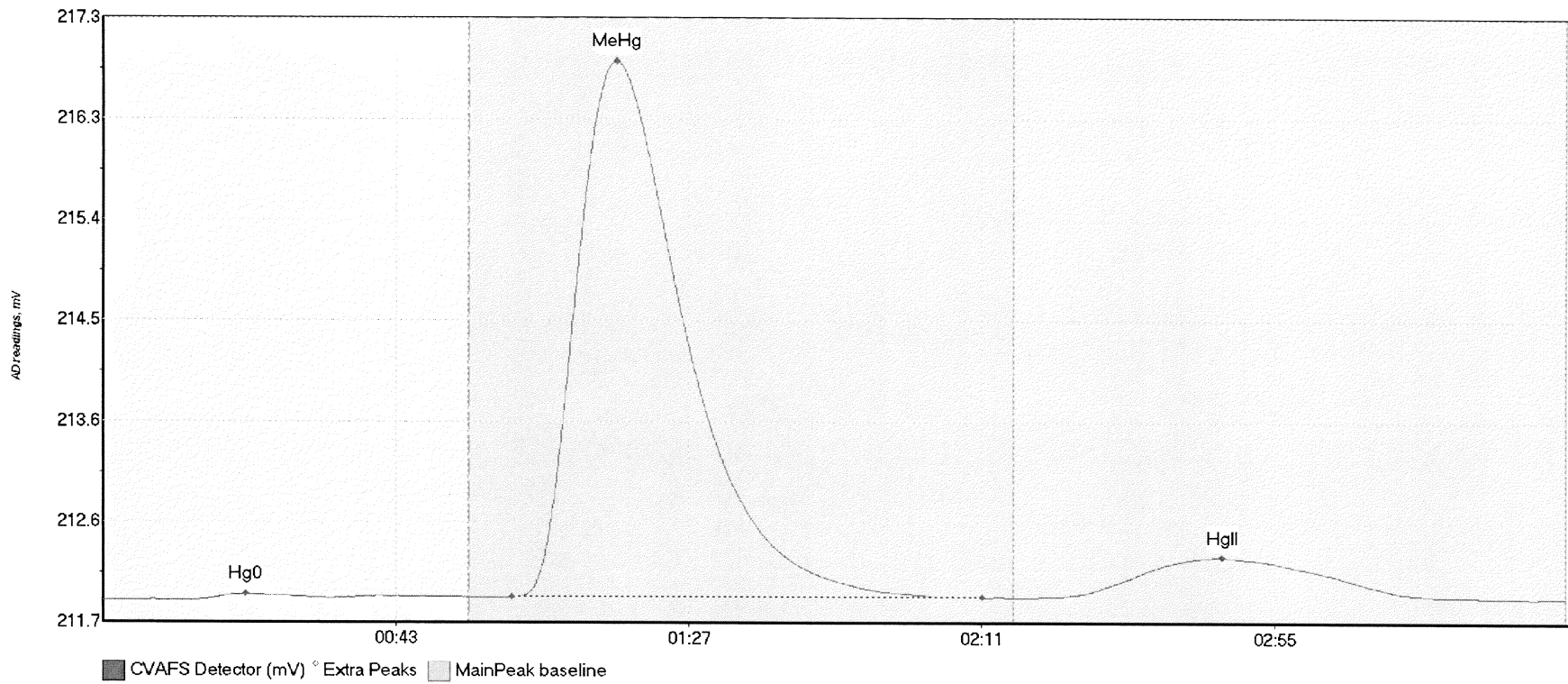
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-BSD1 Hg	6.911	12.5	43.5	211.94	211.97	21.9	0.056	OK	211.9421	0.00	0.01	
F710422-BSD1 Me	1057.626	60.8	131.1	211.96	211.97	77.7	5.512	OK	211.9421	0.00	0.01	
F710422-BSD1 Hg	130.245	142.7	204.0	211.97	211.96	168.6	0.418	OK	211.9421	0.00	0.01	

#13: F710421-BS3



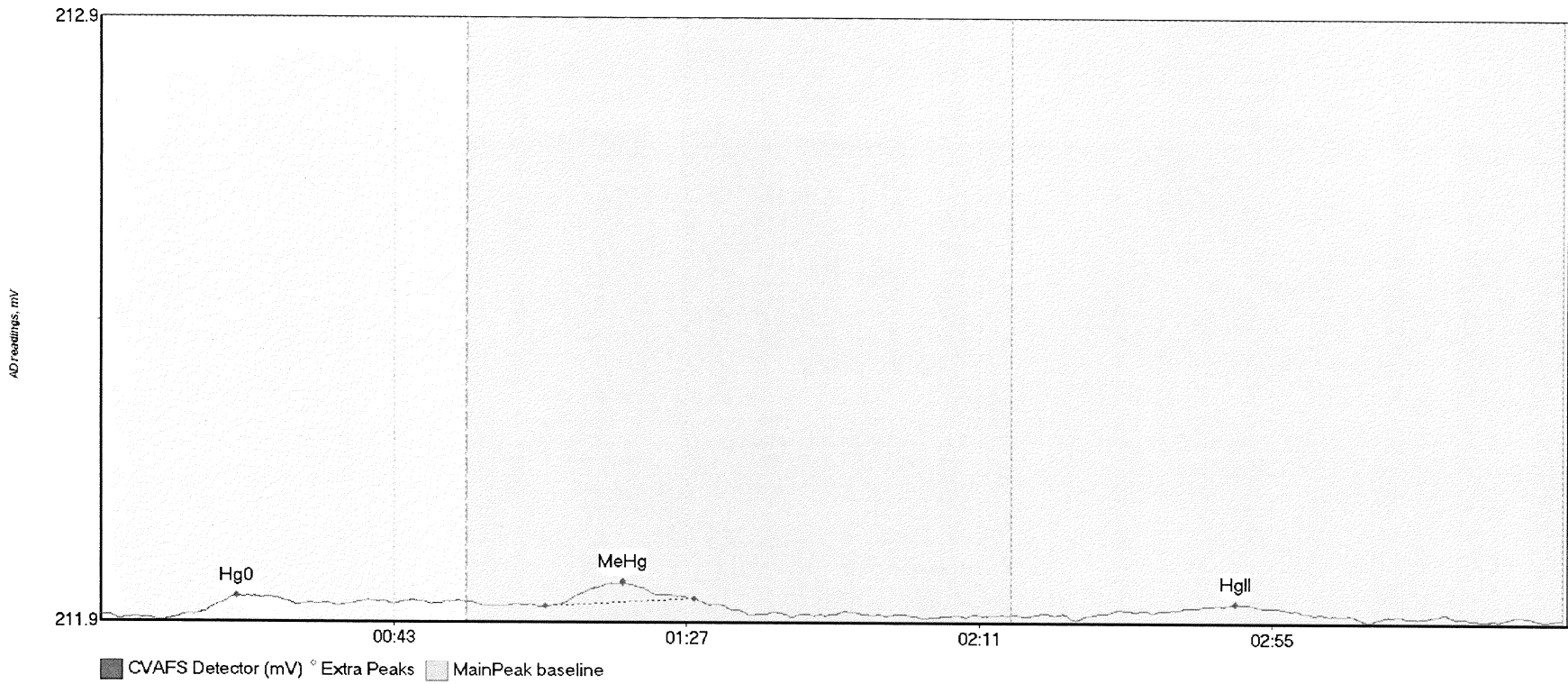
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BS3 Hg0	4.359	13.2	32.3	211.92	211.95	20.1	0.053	OK	211.9231	0.00	-0.01	
F710421-BS3 MeH	923.220	62.2	129.0	211.95	211.94	77.3	4.838	OK	211.9231	0.00	-0.01	
F710421-BS3 HgI	108.886	142.2	201.3	211.93	211.93	167.5	0.350	OK	211.9231	0.00	-0.01	

#14: F710421-BSD3



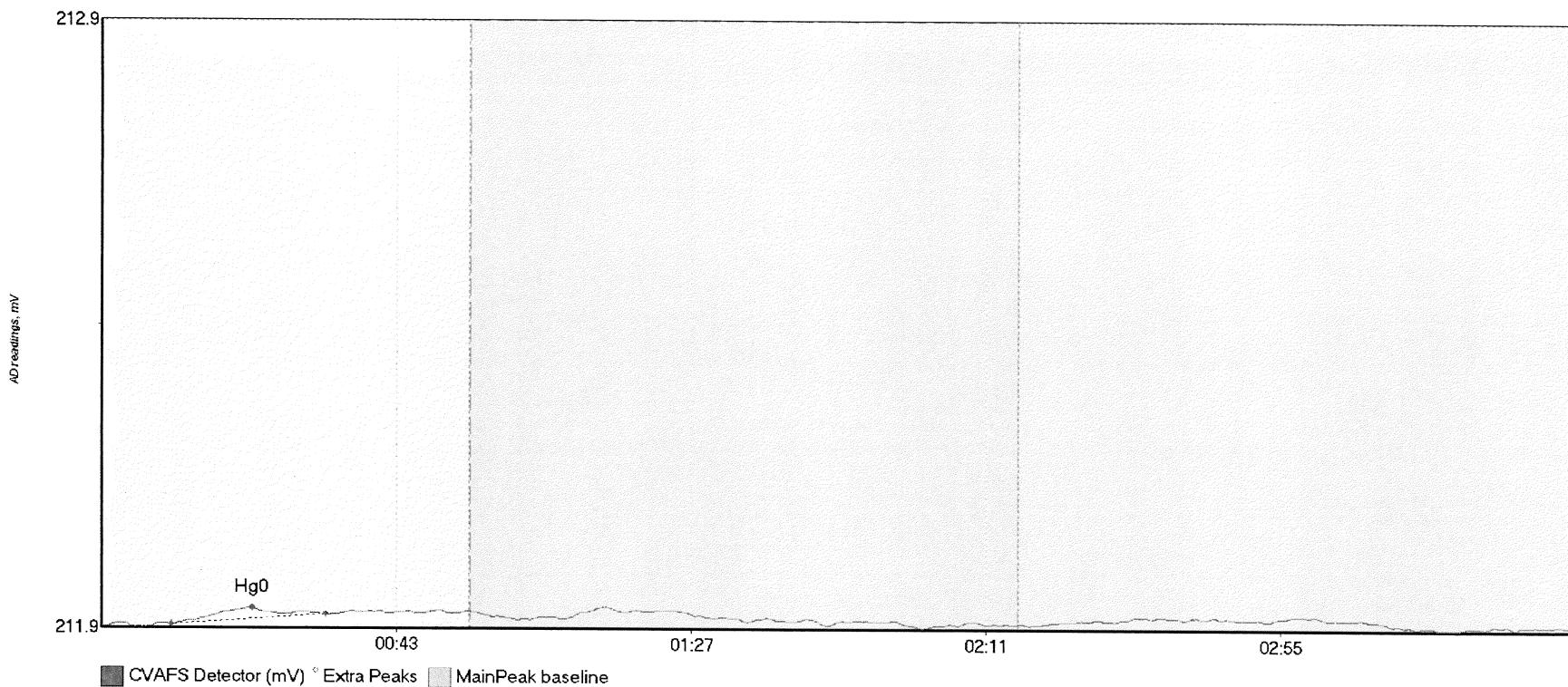
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BSD3 Hg	5.143	13.6	34.4	211.90	211.92	21.5	0.054	OK	211.8955	0.00	0.03	
F710421-BSD3 Me	933.187	61.4	132.1	211.93	211.93	77.1	4.935	OK	211.8955	0.00	0.03	
F710421-BSD3 Hg	114.516	141.2	208.0	211.93	211.92	168.2	0.372	OK	211.8955	0.00	0.03	

#15: F710422-BLK1



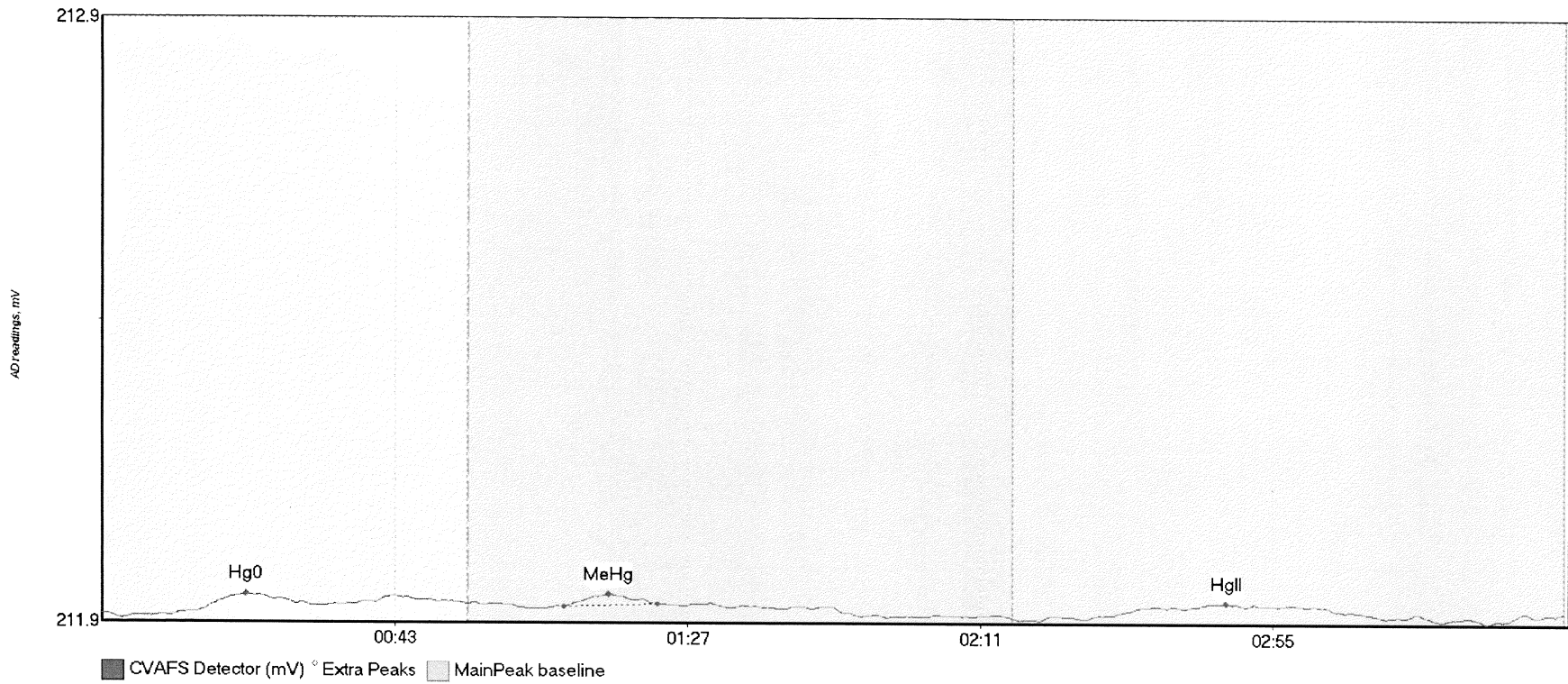
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-BLK1 Hg	2.840	14.0	35.7	211.90	211.91	20.4	0.030	OK	211.8958	0.00	0.00	
F710422-BLK1 Me	3.707	66.9	89.1	211.91	211.92	78.4	0.039	OK	211.8958	0.00	0.00	
F710422-BLK1 Hg	1.903	158.2	181.0	211.90	211.90	170.6	0.015	OK	211.8958	0.00	0.00	

#16: F710422-BLK2



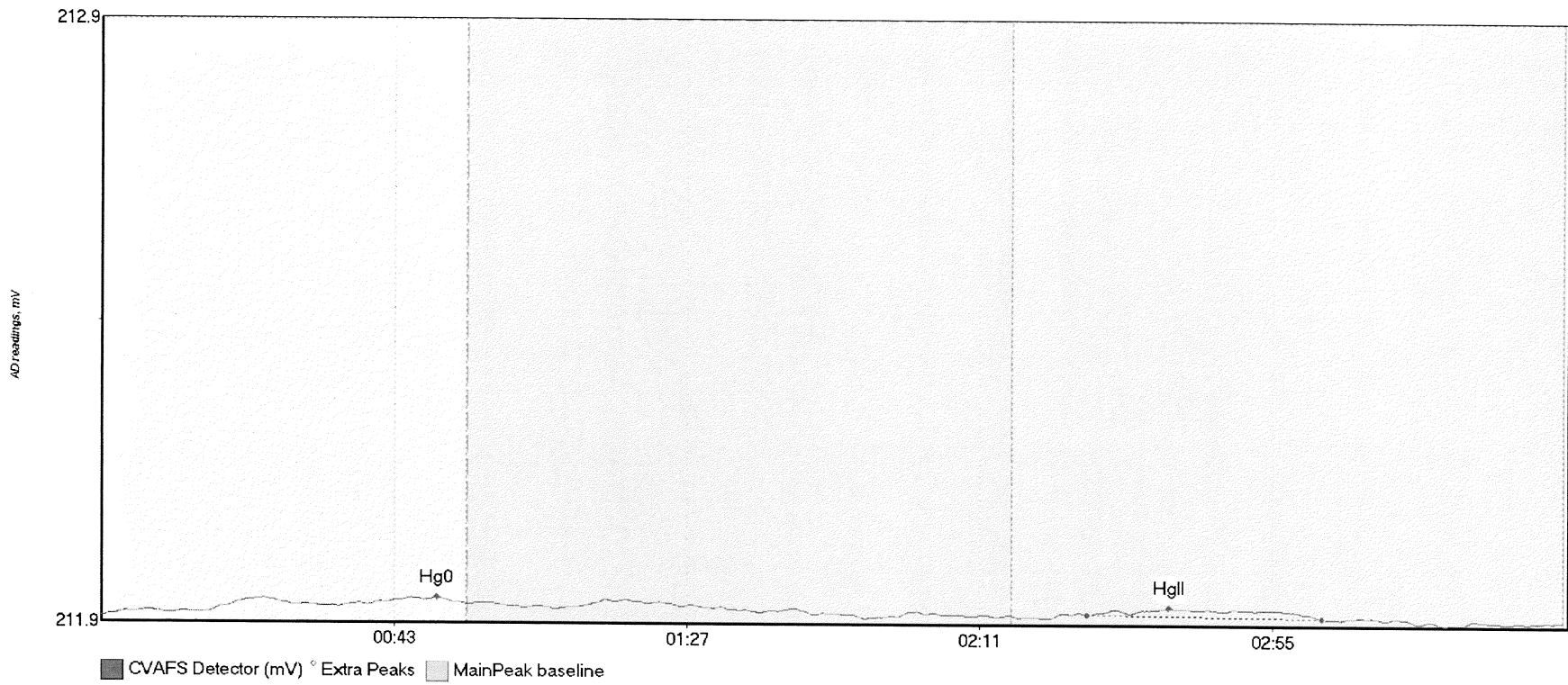
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-BLK2	2.074	10.5	33.5	211.89	211.90	22.4	0.027	OK	211.8843	0.00	0.00	017

#17: F710422-BLK3



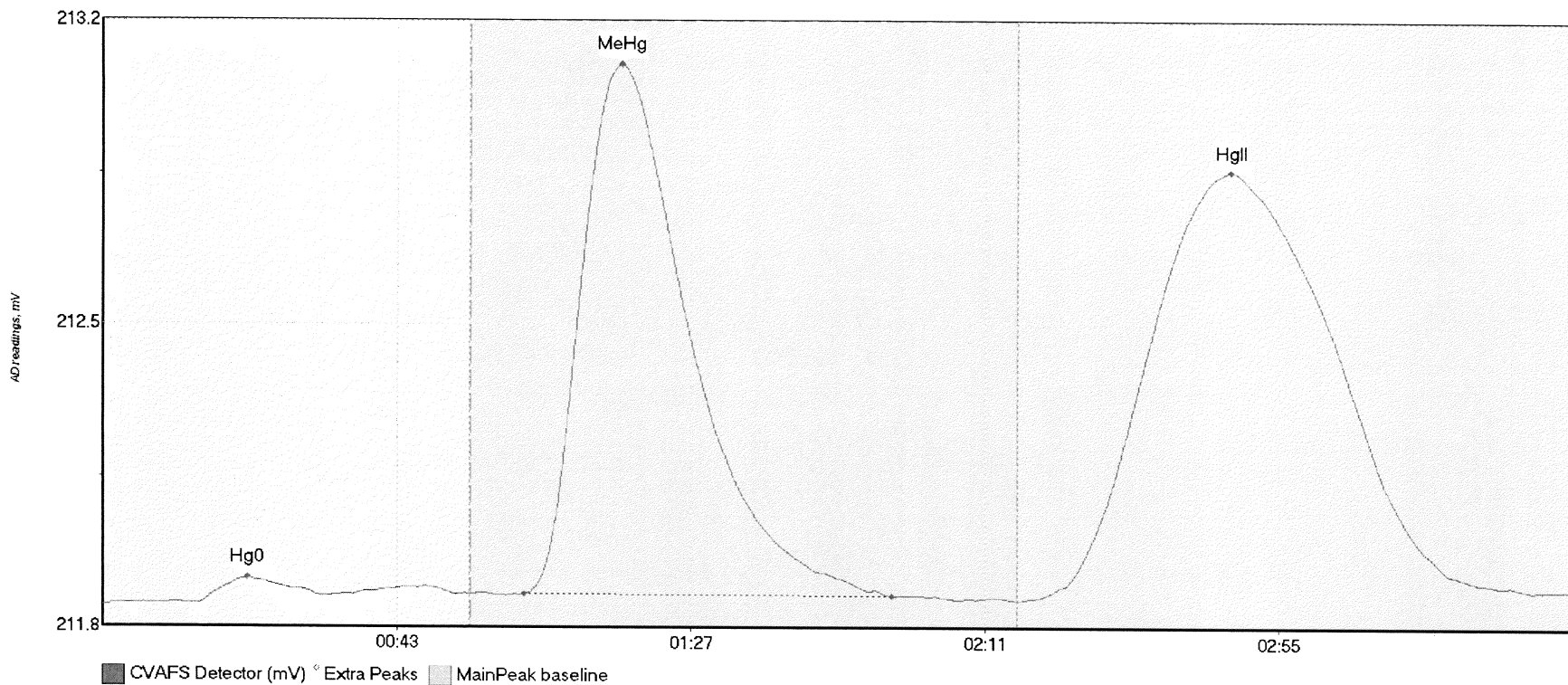
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-BLK3 Hg	2.409	14.1	31.7	211.88	211.90	21.6	0.029	OK	211.8819	0.00	0.00	
F710422-BLK3 Me	1.462	69.4	83.5	211.89	211.90	76.1	0.021	OK	211.8819	0.00	0.00	
F710422-BLK3 Hg	7.190	148.0	192.8	211.88	211.88	169.0	0.026	OK	211.8819	0.00	0.00	

#18: *F710422-BLK4



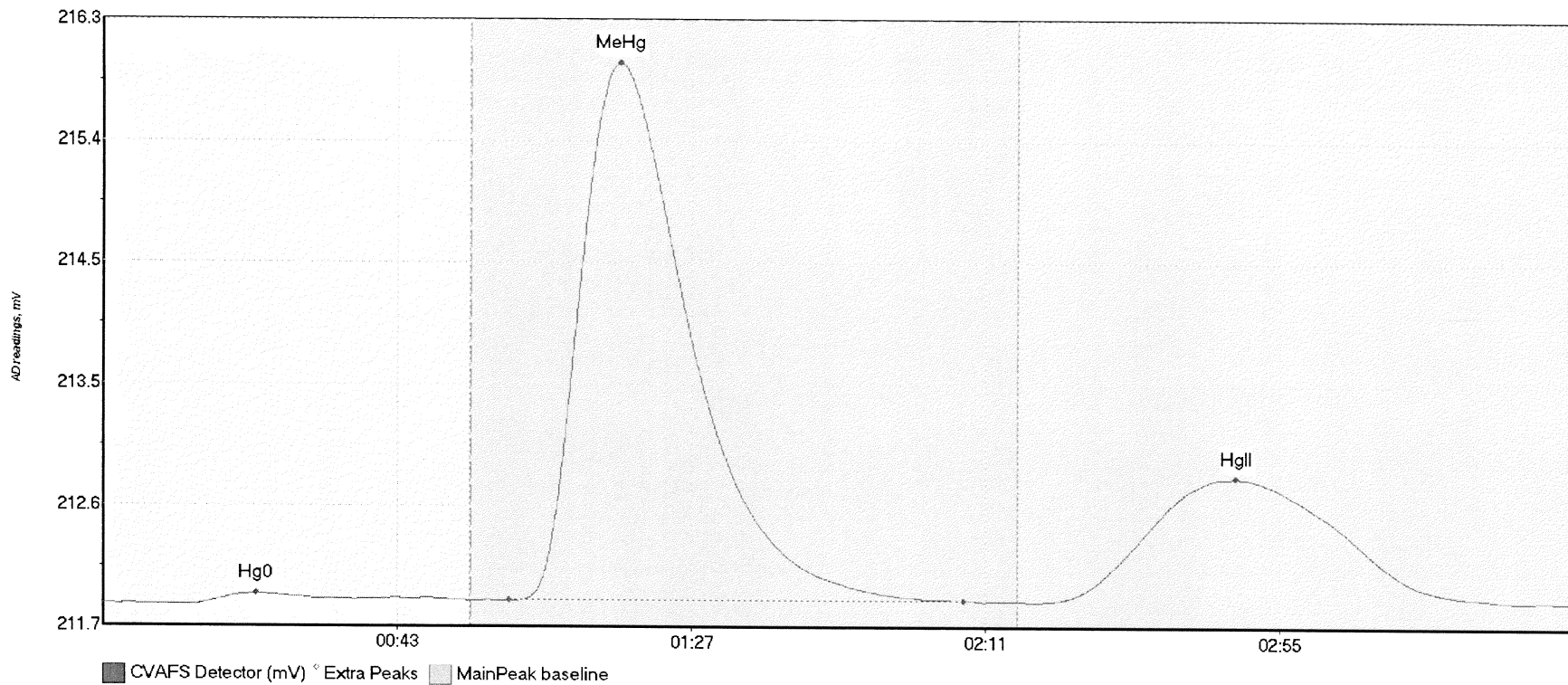
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710422-BLK4 H	3.782	15.8	55.0	211.87	211.89	50.4	0.026	CT	211.8694	0.00	0.00	
*F710422-BLK4 H	3.400	148.2	183.5	211.87	211.87	160.5	0.013	OK	211.8694	0.00	0.00	017

#19: F710422-DUP1



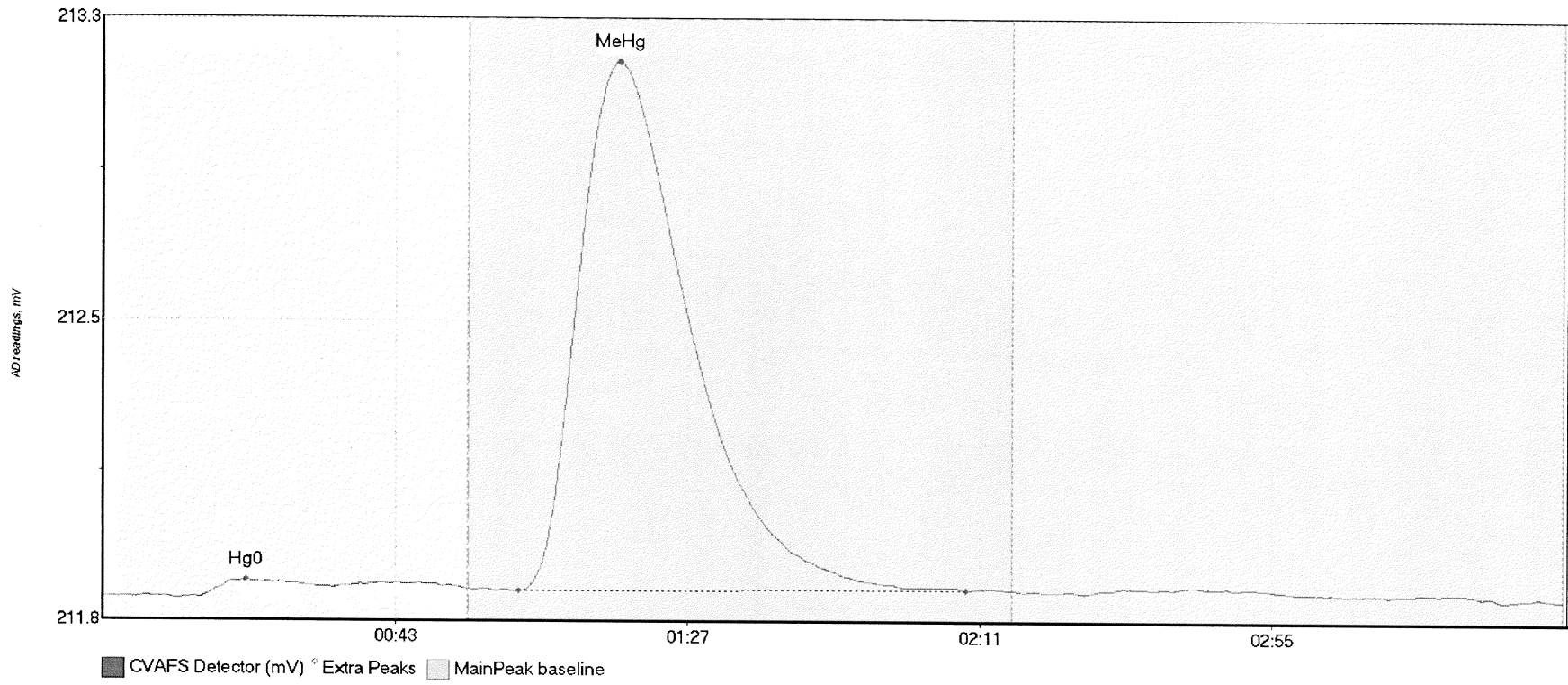
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-DUP1 Hg	5.114	13.6	33.5	211.86	211.88	21.6	0.058	OK	211.8593	0.00	0.04	
F710422-DUP1 Me	224.959	63.0	118.0	211.89	211.88	77.6	1.198	OK	211.8593	0.00	0.04	
F710422-DUP1 Hg	302.500	139.5	214.0	211.88	211.89	168.7	0.969	OK	211.8593	0.00	0.04	

#20: F710422-MS1



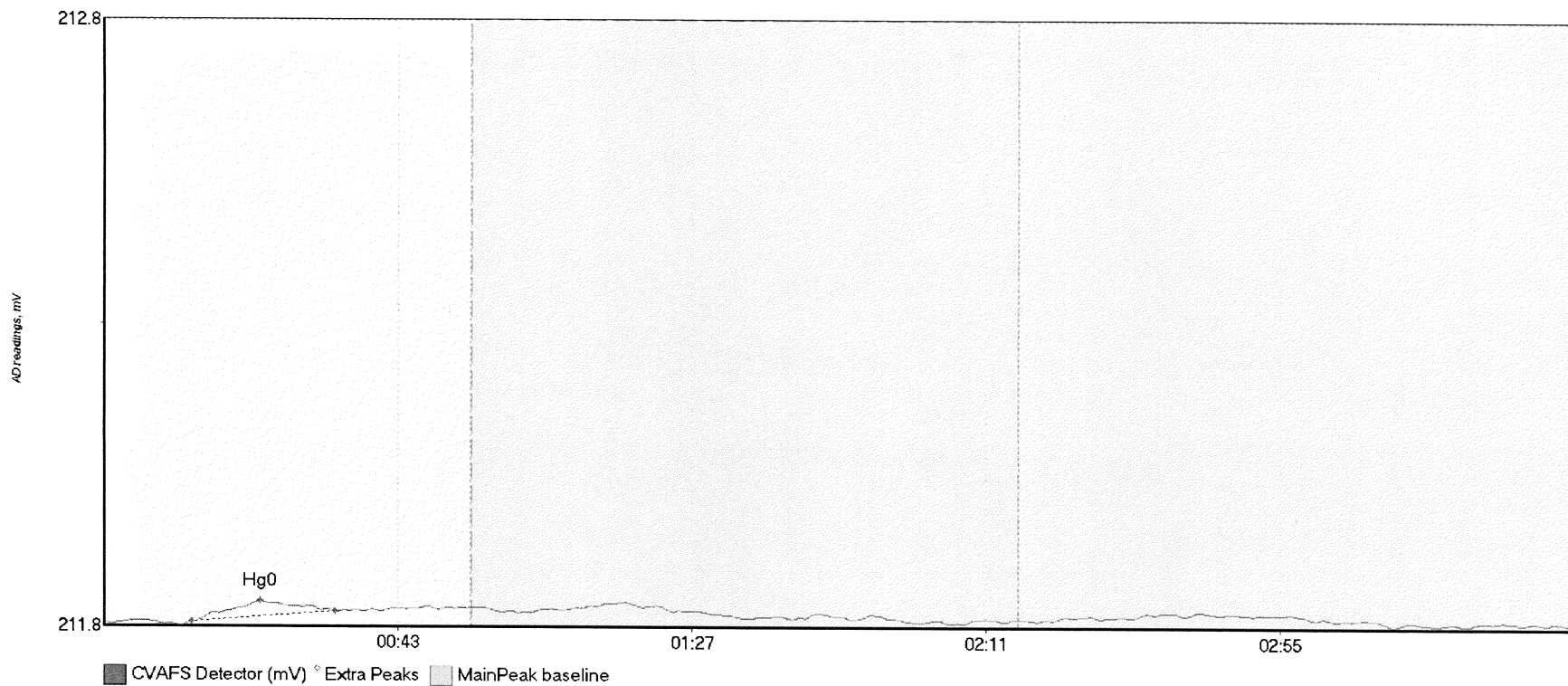
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-MS1 Hg0	13.482	13.4	54.7	211.86	211.90	22.8	0.081	OK	211.8716	0.00	0.02	
F710422-MS1 MeH	778.261	60.7	128.8	211.89	211.90	77.3	4.103	OK	211.8716	0.00	0.02	
F710422-MS1 HgI	303.033	140.5	212.2	211.89	211.89	169.4	0.949	OK	211.8716	0.00	0.02	

#21: SEQ-CCV1



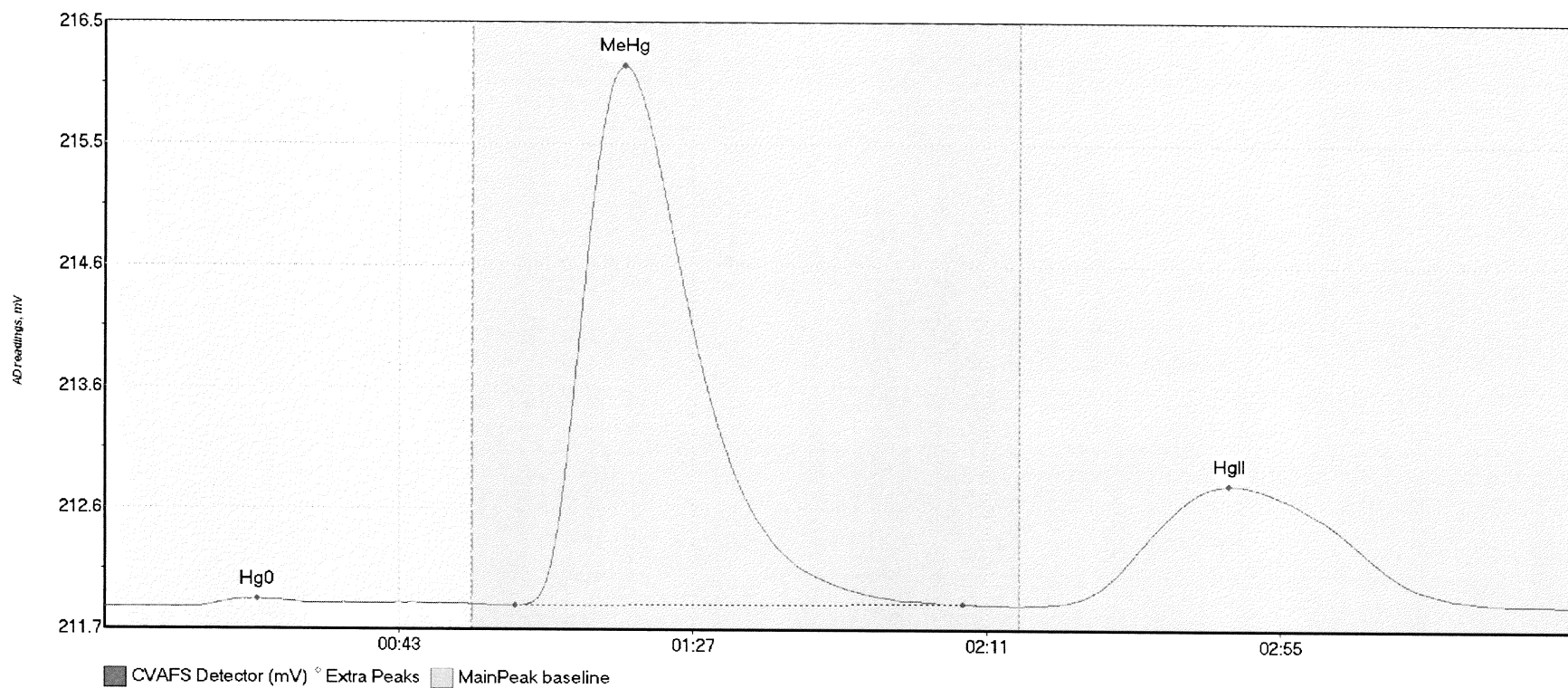
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	8.222	14.6	55.0	211.86	211.88	21.6	0.043	CT	211.8632	0.00	0.00	
SEQ-CCV1 MeHg	251.525	62.6	129.9	211.88	211.88	77.8	1.298	OK	211.8632	0.00	0.00	017

#22: SEQ-CCB1



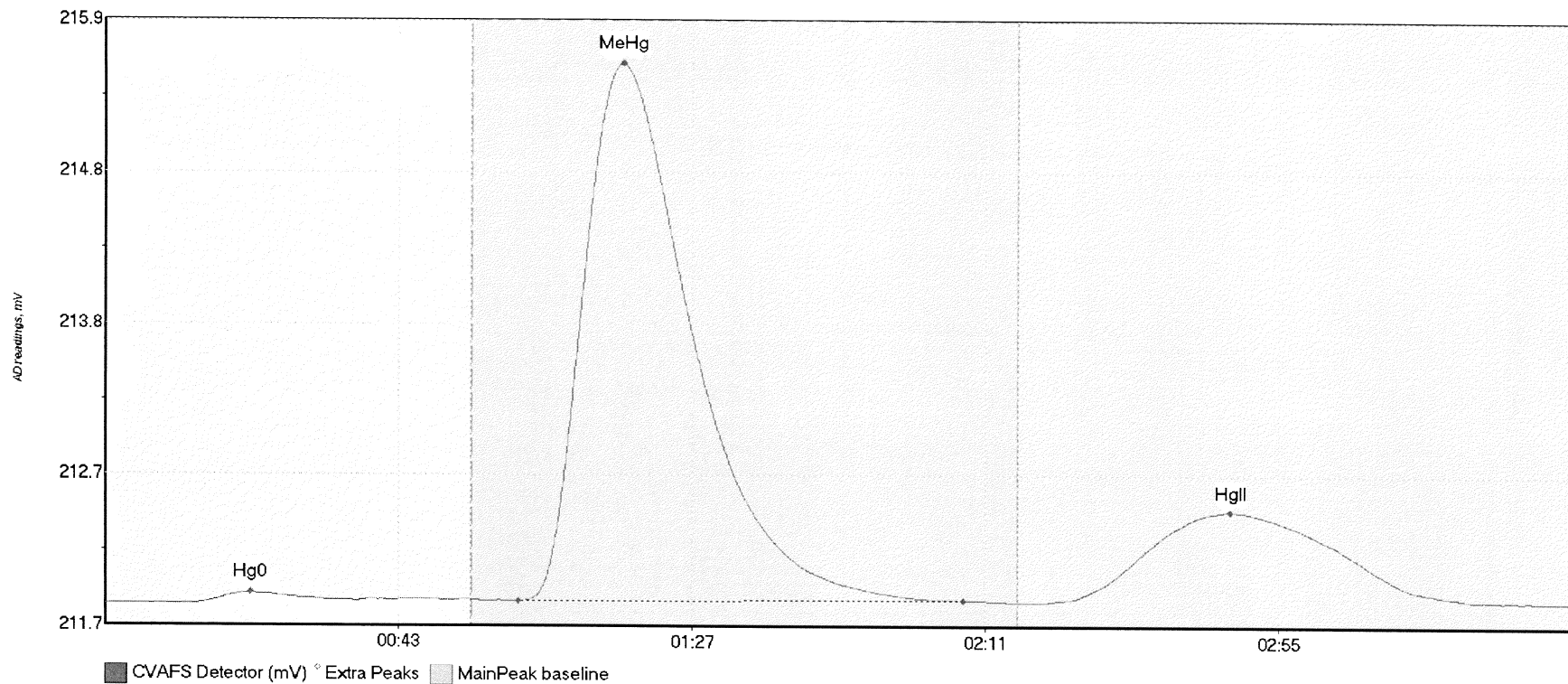
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1	2.979	13.2	34.6	211.85	211.87	23.4	0.035	OK	211.8533	0.00	0.00	017

#23: F710422-MSD1



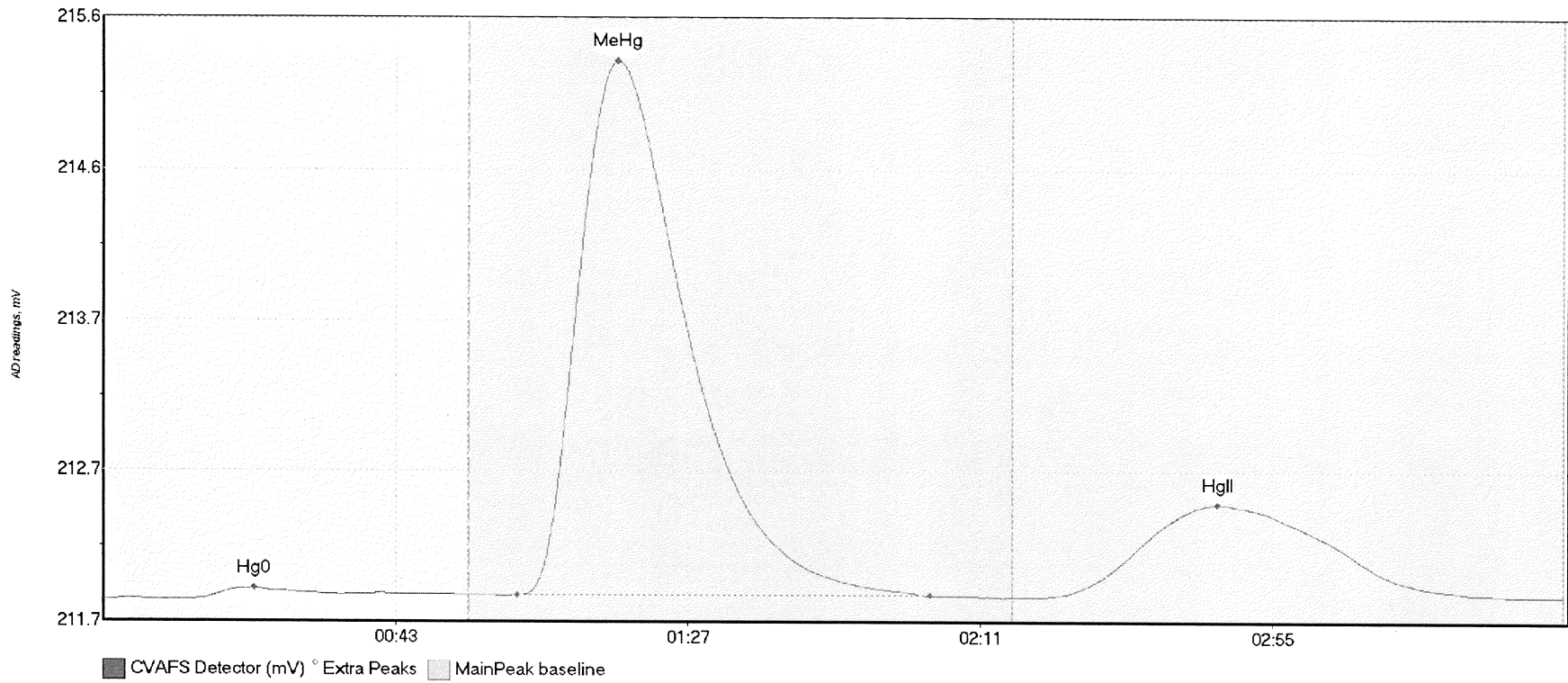
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-MSD1 Hg	9.522	13.6	55.0	211.85	211.87	22.8	0.061	CT	211.8438	0.00	0.02	
F710422-MSD1 Me	819.165	61.4	128.5	211.86	211.87	77.8	4.285	OK	211.8438	0.00	0.02	
F710422-MSD1 Hg	306.463	138.5	218.2	211.87	211.87	168.3	0.958	OK	211.8438	0.00	0.02	

#24: F710422-MS2



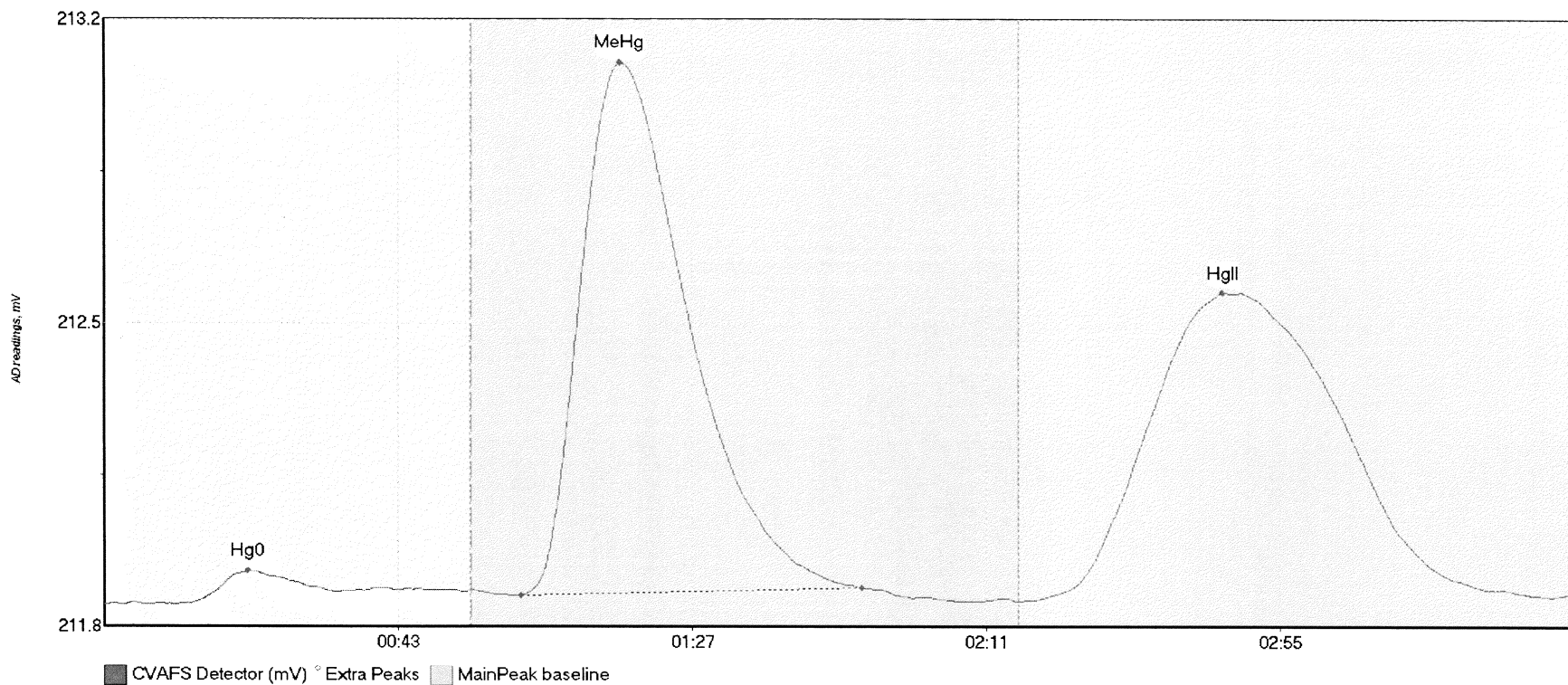
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-MS2 Hg0	7.599	13.2	37.6	211.85	211.87	21.8	0.073	OK	211.8515	0.00	0.02	
F710422-MS2 MeH	695.855	62.0	128.7	211.87	211.88	77.7	3.704	OK	211.8515	0.00	0.02	
F710422-MS2 HgI	198.120	141.1	219.0	211.87	211.87	168.8	0.625	OK	211.8515	0.00	0.02	

#25: F710422-MSD2



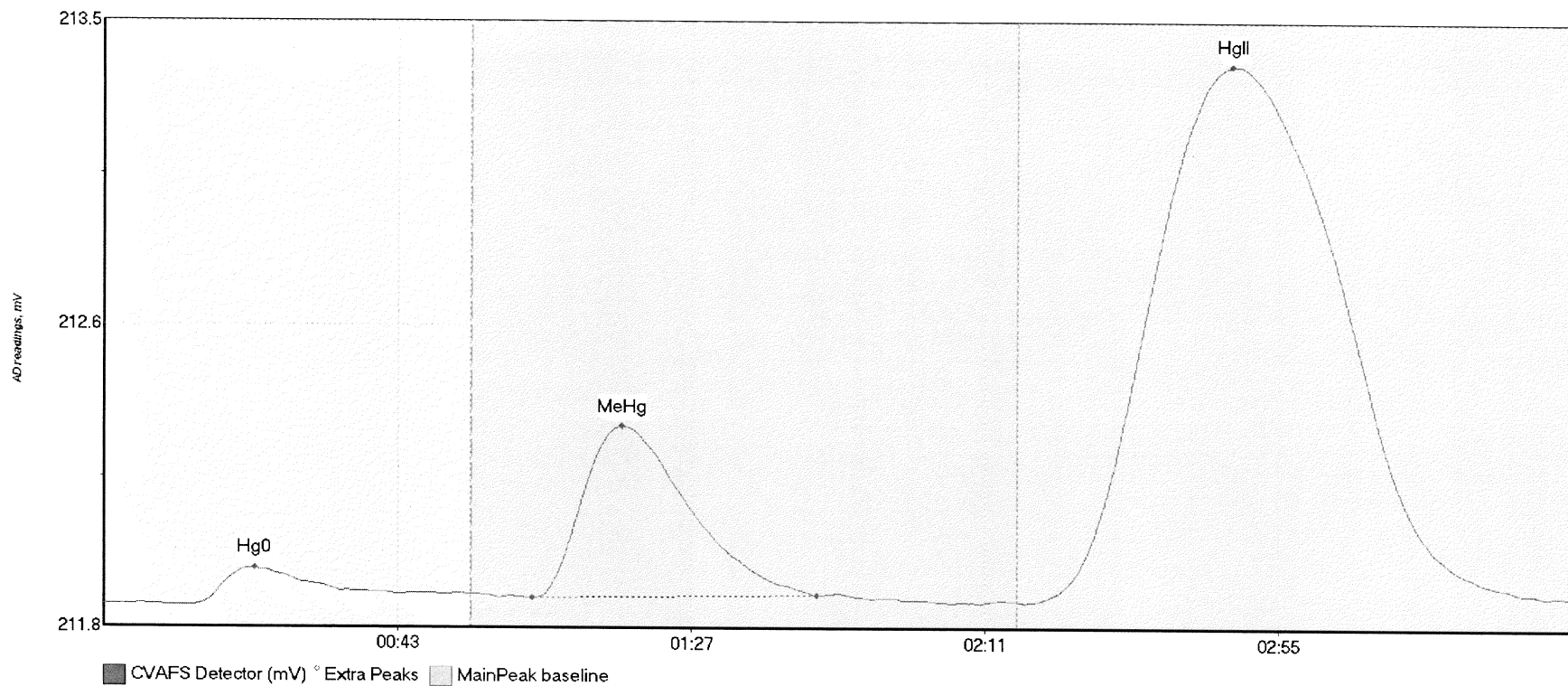
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-MSD2 Hg	10.674	12.7	54.9	211.85	211.88	22.7	0.072	OK	211.8512	0.00	0.02	
F710422-MSD2 Me	649.814	62.3	124.5	211.88	211.88	77.5	3.448	OK	211.8512	0.00	0.02	
F710422-MSD2 Hg	187.381	141.8	214.6	211.87	211.87	167.8	0.597	OK	211.8512	0.00	0.02	

#26: 1708240-06



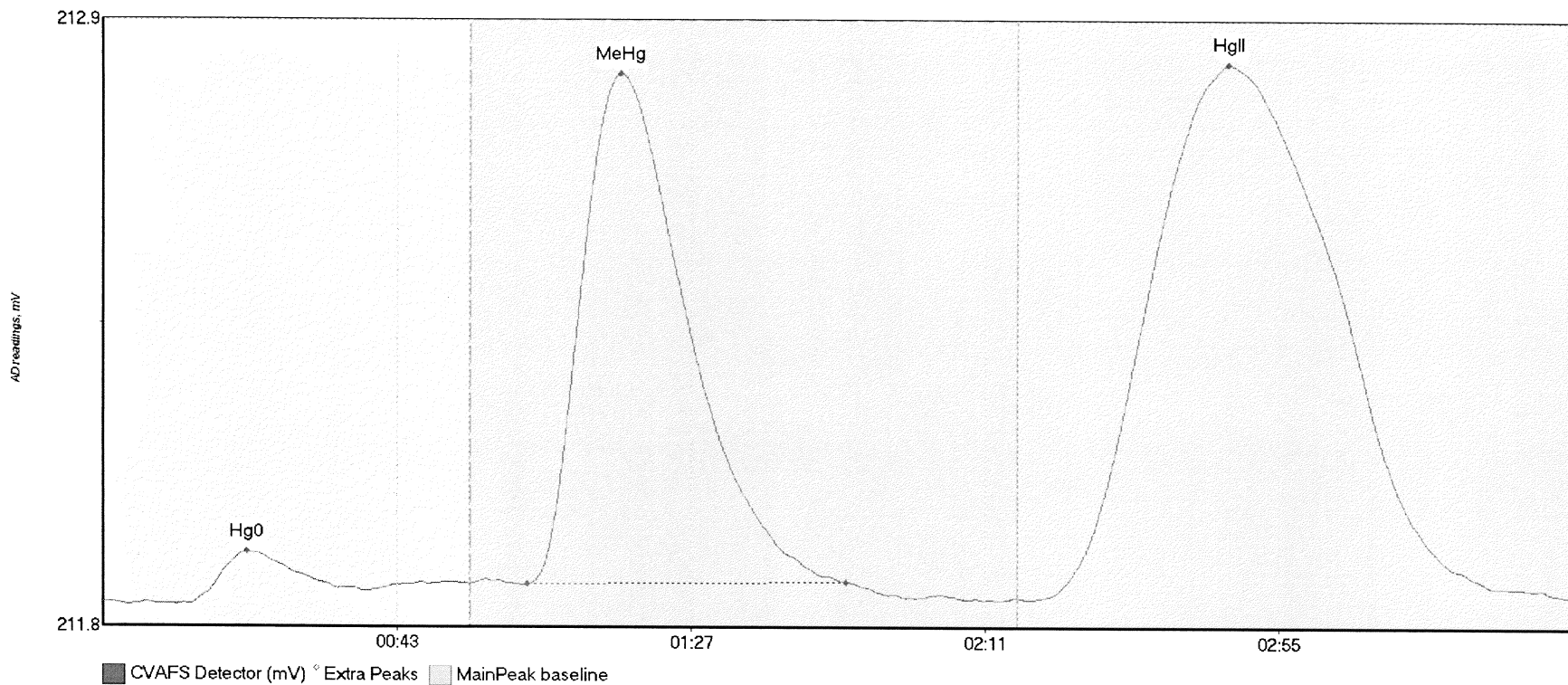
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-06 Hg0	10.640	12.9	53.8	211.86	211.88	21.6	0.075	OK	211.8550	0.00	0.02	
1708240-06 MeHg	226.606	62.5	113.4	211.87	211.89	77.2	1.228	OK	211.8550	0.00	0.02	
1708240-06 HgII	229.528	139.2	216.7	211.86	211.87	167.4	0.712	OK	211.8550	0.00	0.02	

#27: 1708240-07



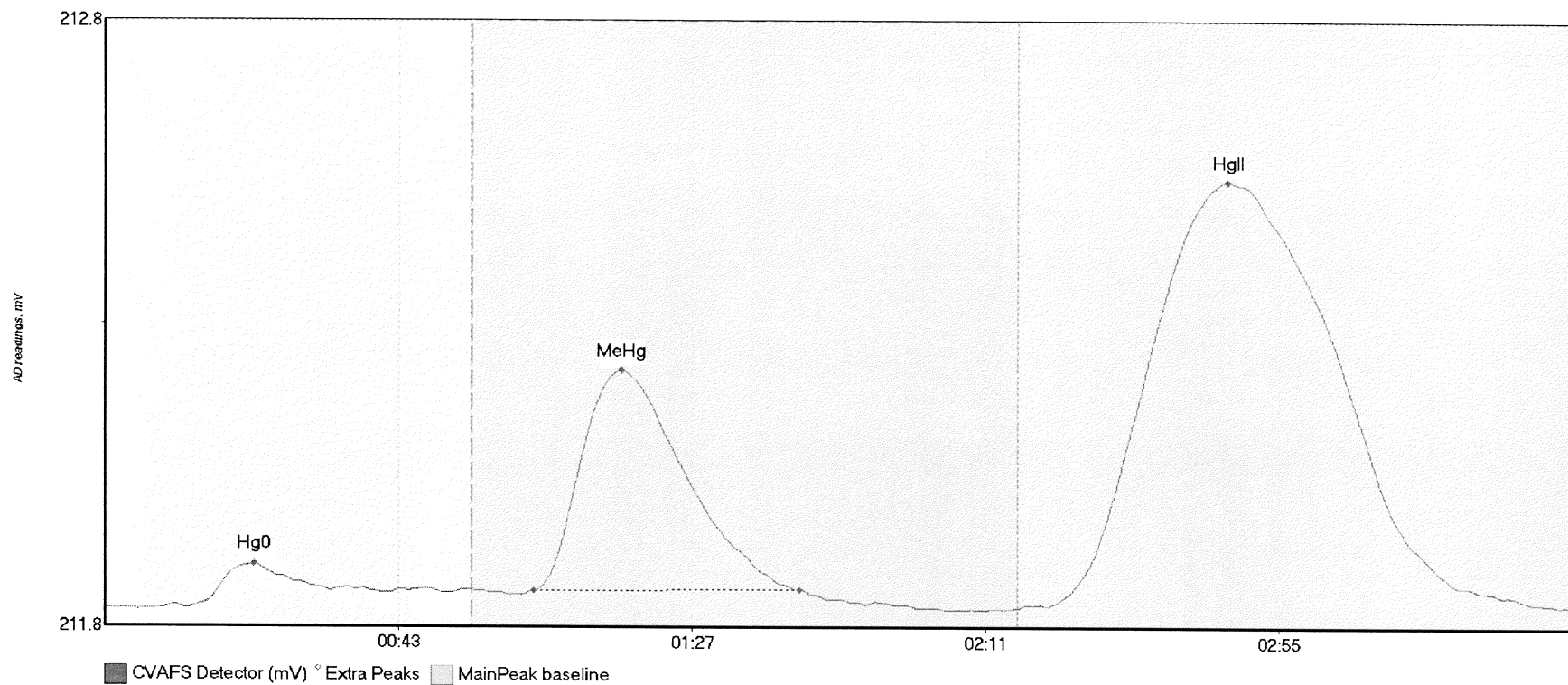
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-07 Hg0	13.080	12.9	44.4	211.86	211.89	22.6	0.103	OK	211.8585	0.00	0.03	
1708240-07 MeHg	87.355	64.2	106.9	211.88	211.88	77.6	0.480	OK	211.8585	0.00	0.03	
1708240-07 HgII	478.447	138.7	216.7	211.87	211.88	169.0	1.496	OK	211.8585	0.00	0.03	017

#28: 1708240-08



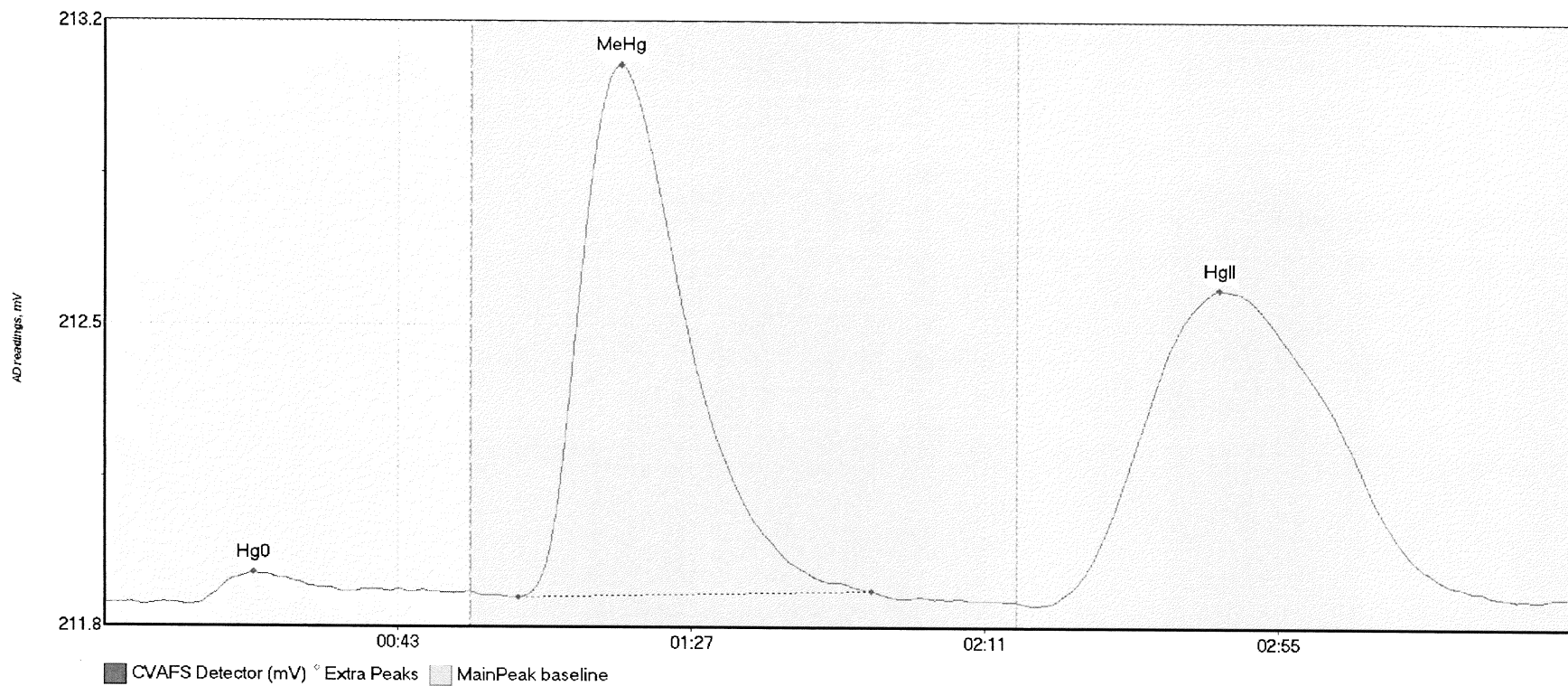
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-08 Hg0	10.015	12.9	39.2	211.85	211.87	21.6	0.090	OK	211.8534	0.00	0.01	
1708240-08 MeHg	161.104	63.6	111.2	211.88	211.89	77.5	0.890	OK	211.8534	0.00	0.01	
1708240-08 HgII	293.508	141.2	219.4	211.86	211.86	168.4	0.929	OK	211.8534	0.00	0.01	

#29: 1708240-09



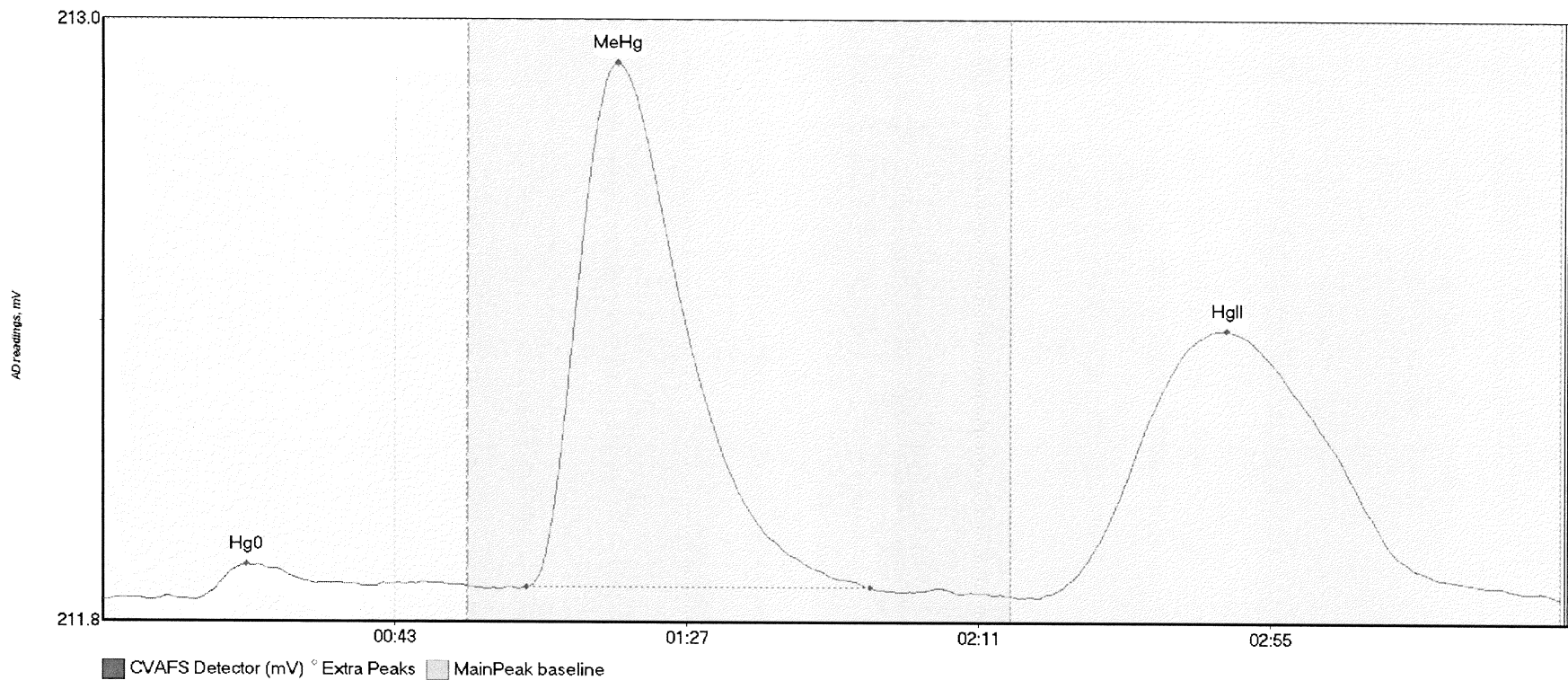
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-09 Hg0	9.463	12.1	51.1	211.84	211.86	22.4	0.072	OK	211.8385	0.00	0.00	
1708240-09 MeHg	64.486	64.3	104.2	211.87	211.87	77.5	0.365	OK	211.8385	0.00	0.00	
1708240-09 HgII	223.129	141.3	218.3	211.84	211.84	168.3	0.702	OK	211.8385	0.00	0.00	

#30: 1708240-10



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-10 Hg0	11.016	13.1	52.5	211.82	211.85	22.4	0.076	OK	211.8268	0.00	0.02	
1708240-10 MeHg	233.217	62.1	115.0	211.84	211.86	77.4	1.276	OK	211.8268	0.00	0.02	
1708240-10 HgII	240.272	139.4	214.9	211.82	211.84	167.2	0.758	OK	211.8268	0.00	0.02	

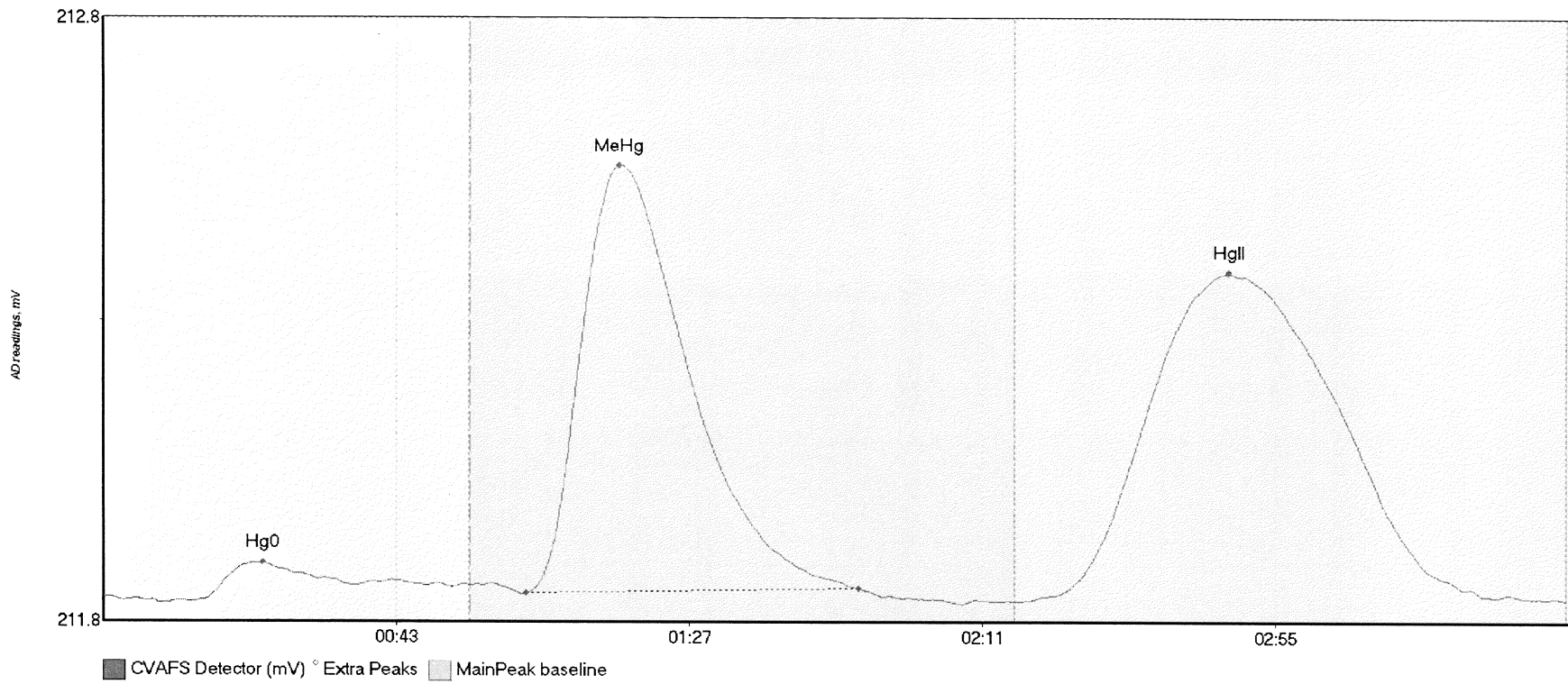
#31: 1708240-11



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-11 Hg0	10.216	13.7	55.0	211.82	211.85	21.7	0.070	CT	211.8195	0.00	0.01	
1708240-11 MeHg	190.227	63.8	115.8	211.84	211.84	77.6	1.027	OK	211.8195	0.00	0.01	
1708240-11 HgII	166.290	142.7	219.8	211.83	211.83	169.5	0.519	CT	211.8195	0.00	0.01	

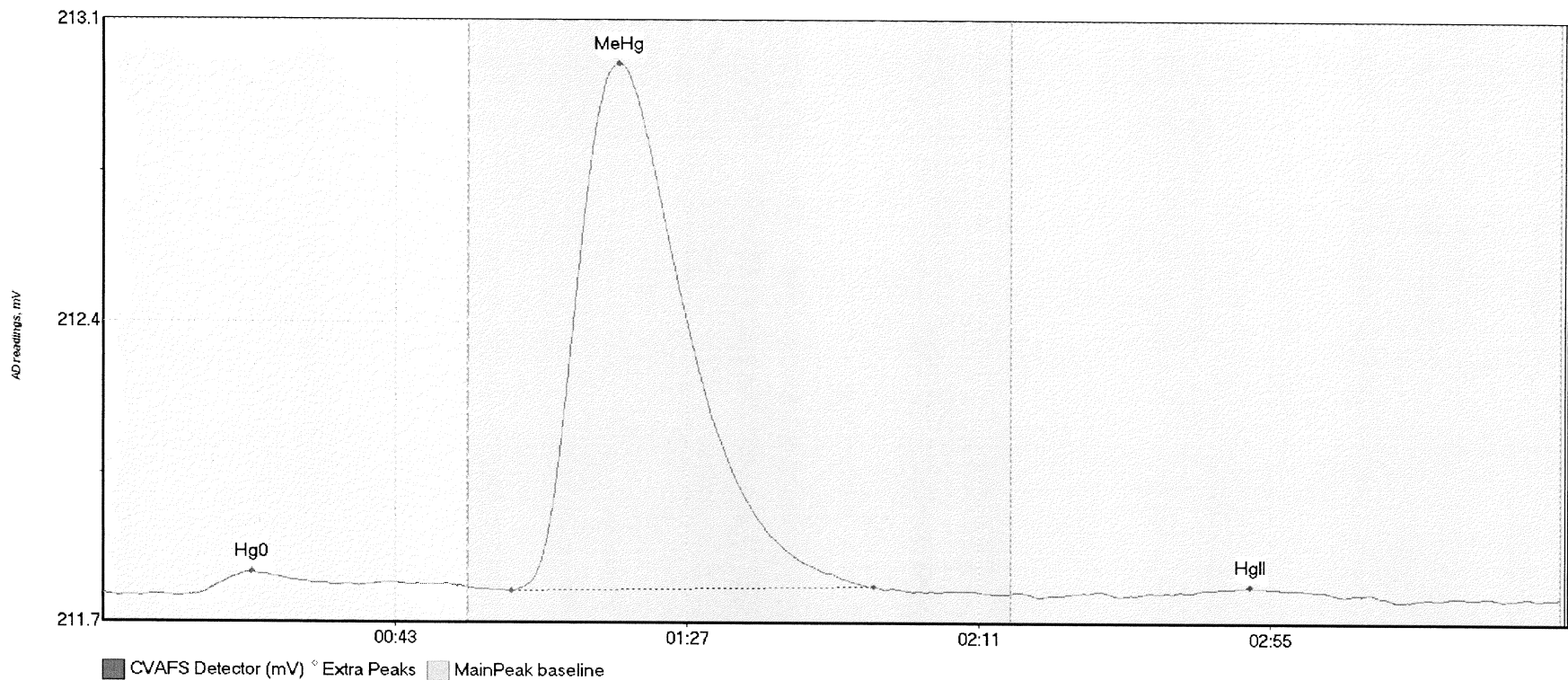
017

#32: 1708240-12



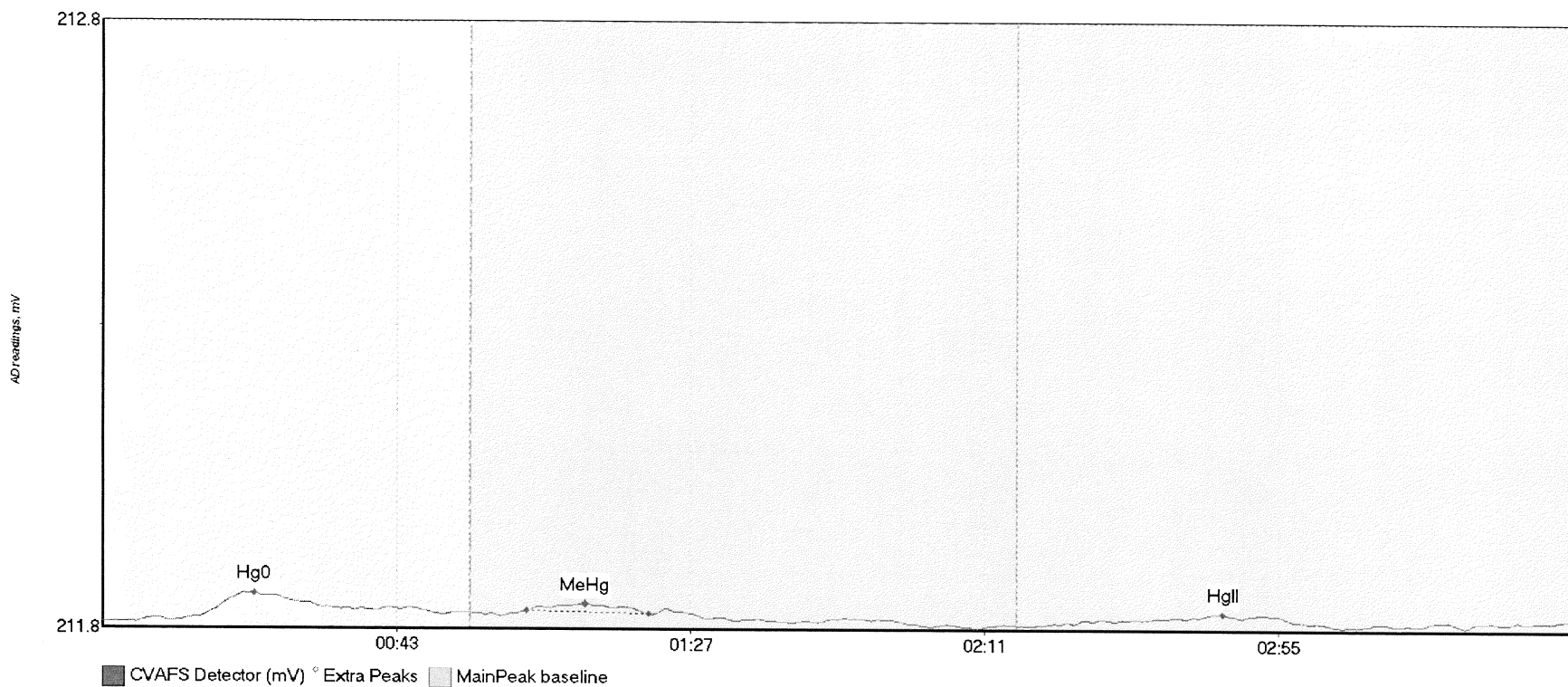
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-12 Hg0	9.040	15.0	52.3	211.81	211.83	24.0	0.061	OK	211.8182	0.00	0.00	
1708240-12 MeHg	131.757	63.4	113.4	211.82	211.83	77.5	0.709	OK	211.8182	0.00	0.00	
1708240-12 HgII	174.955	139.4	219.7	211.81	211.81	169.0	0.543	OK	211.8182	0.00	0.00	

#33: SEQ-CCV2



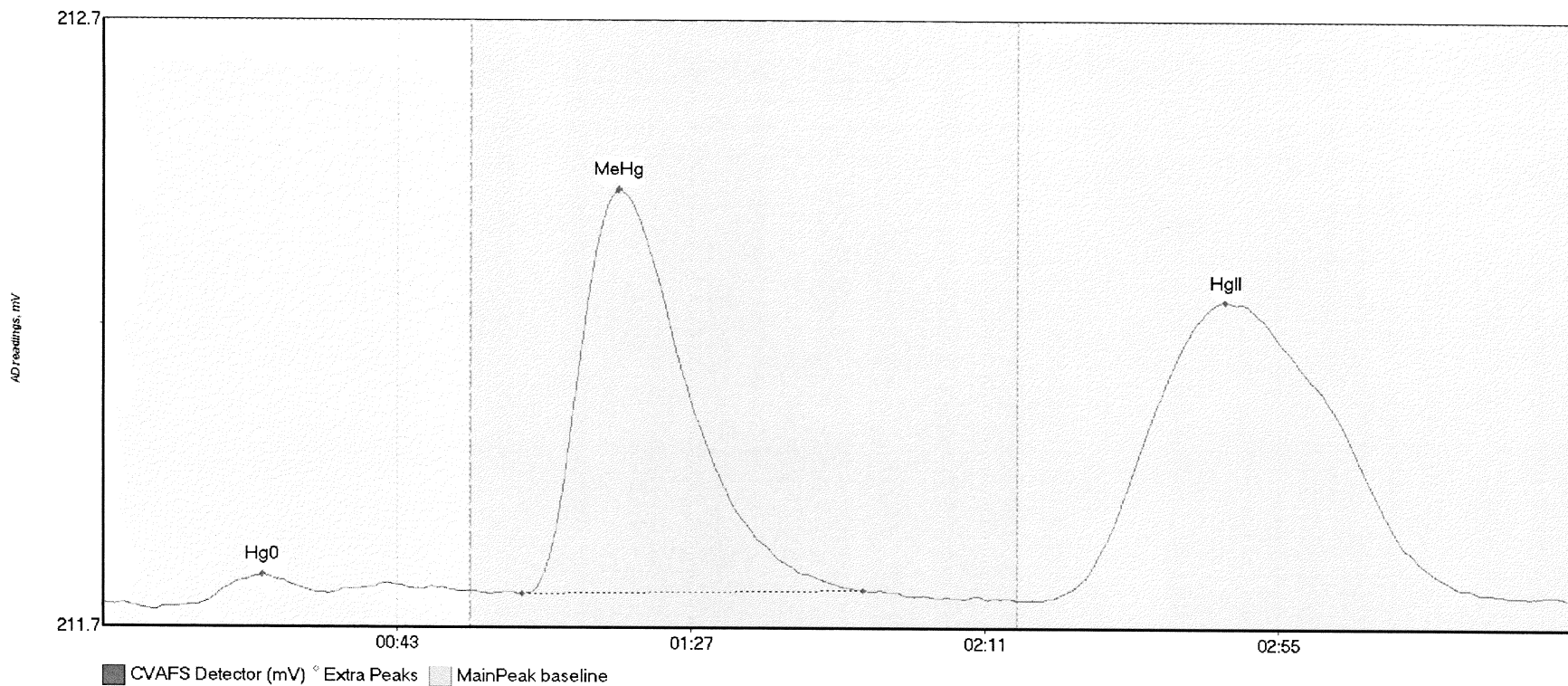
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	8.293	14.0	55.0	211.80	211.82	22.4	0.051	CT	211.8053	0.00	-0.01	
SEQ-CCV2 MeHg	227.784	61.6	116.2	211.81	211.82	77.7	1.199	OK	211.8053	0.00	-0.01	
SEQ-CCV2 HgII	1.204	164.3	183.1	211.81	211.81	173.0	0.012	OK	211.8053	0.00	-0.01	

#34: SEQ-CCB2



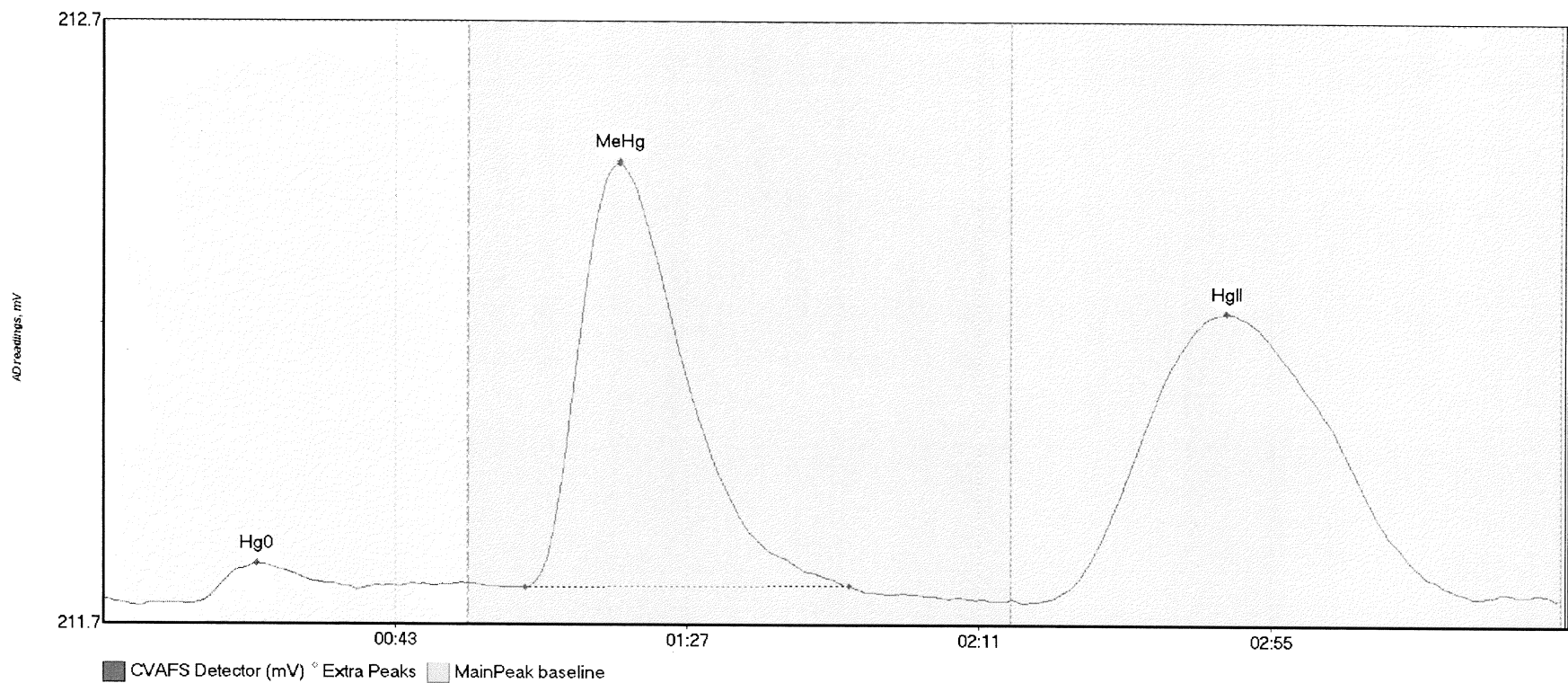
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	7.154	11.6	51.1	211.78	211.79	22.7	0.044	OK	211.7803	0.00	0.01	
SEQ-CCB2 MeHg	1.625	63.4	81.8	211.80	211.79	72.1	0.012	OK	211.7803	0.00	0.01	
SEQ-CCB2 HgII	3.285	145.4	180.9	211.78	211.78	167.7	0.017	OK	211.7803	0.00	0.01	

#35: 1708240-13



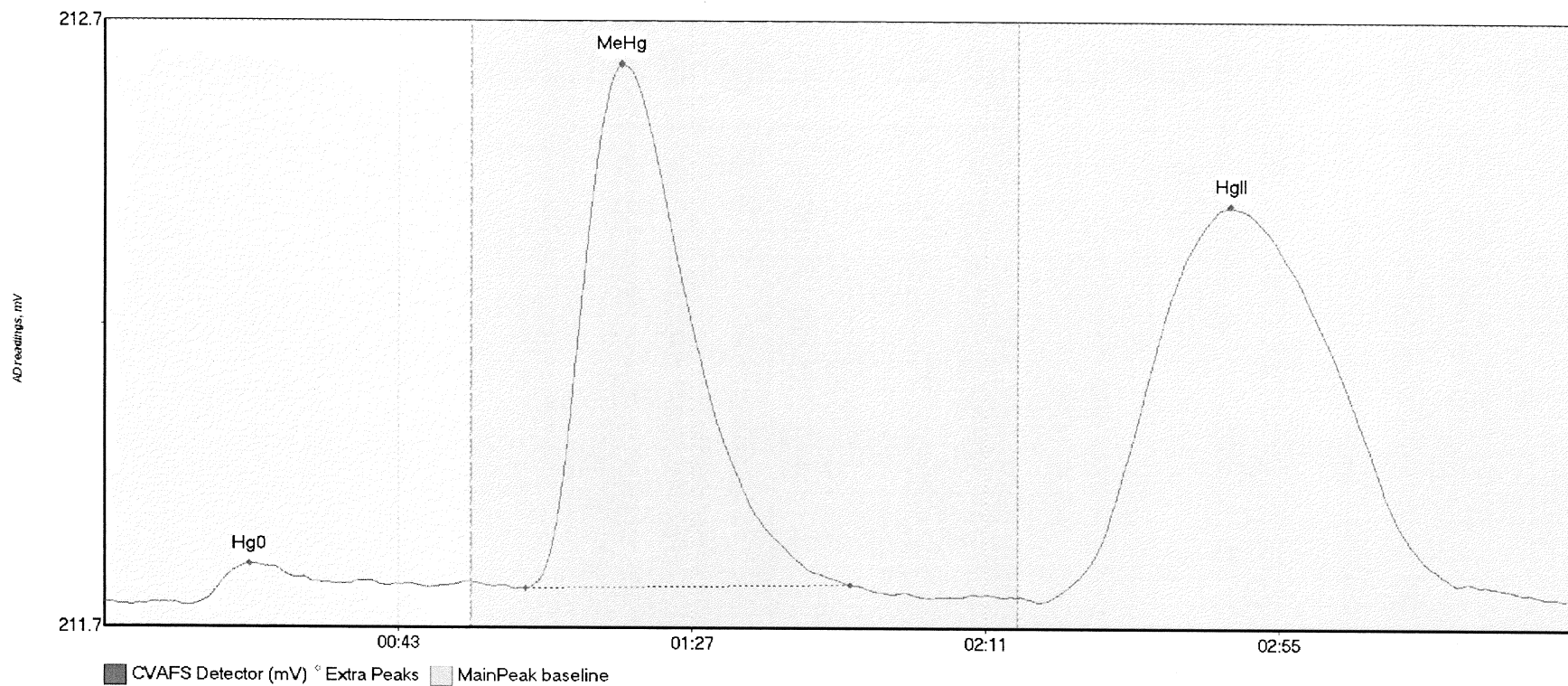
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-13 Hg0	4.112	14.2	33.8	211.77	211.79	23.9	0.049	OK	211.7742	0.00	0.01	
1708240-13 MeHg	122.568	62.7	113.7	211.79	211.80	77.2	0.667	OK	211.7742	0.00	0.01	
1708240-13 HgII	154.210	141.7	213.6	211.78	211.79	168.0	0.492	OK	211.7742	0.00	0.01	

#36: 1708240-14



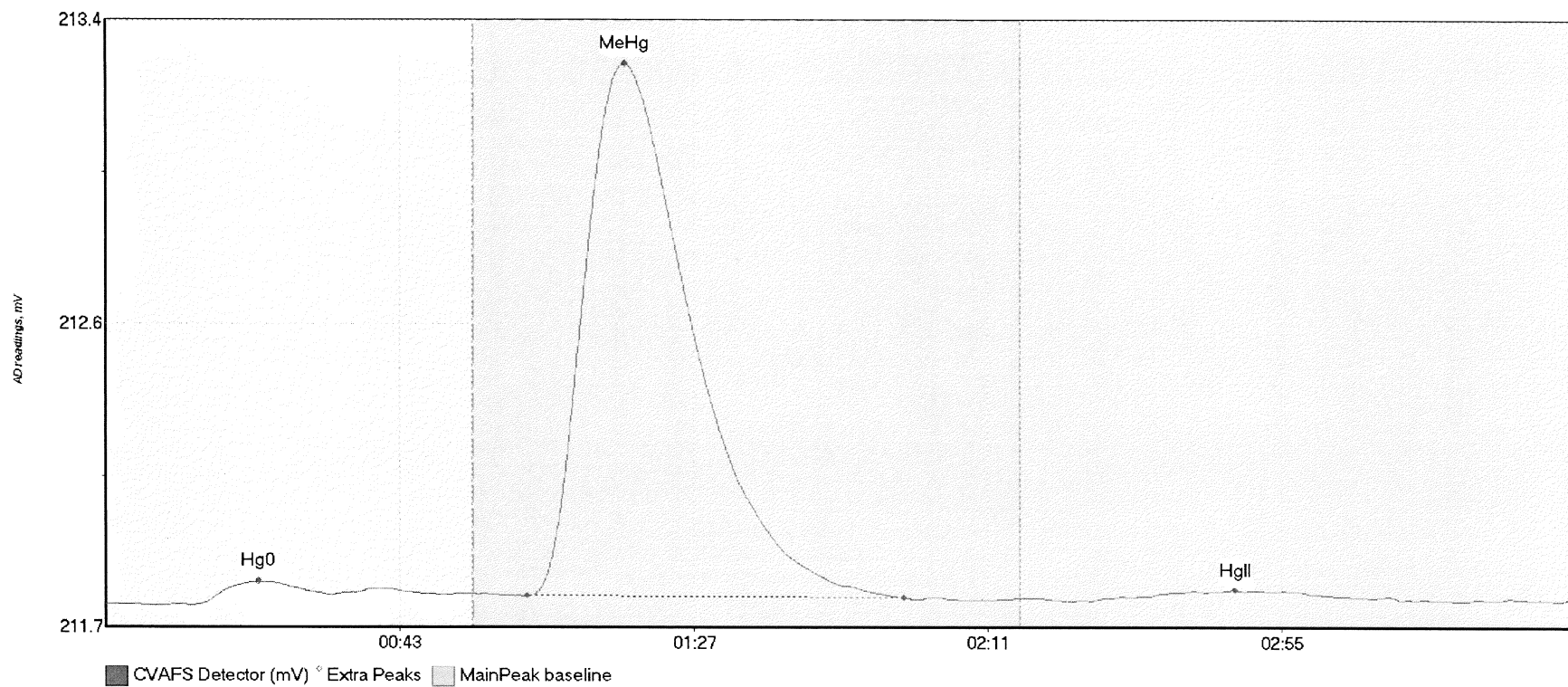
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-14 Hg0	7.287	13.5	38.4	211.77	211.80	23.2	0.067	OK	211.7785	0.00	0.00	
1708240-14 MeHg	128.353	63.6	112.5	211.80	211.80	77.9	0.705	OK	211.7785	0.00	0.00	
1708240-14 HgII	150.314	142.0	206.5	211.78	211.78	169.3	0.479	OK	211.7785	0.00	0.00	

#37: 1708240-15



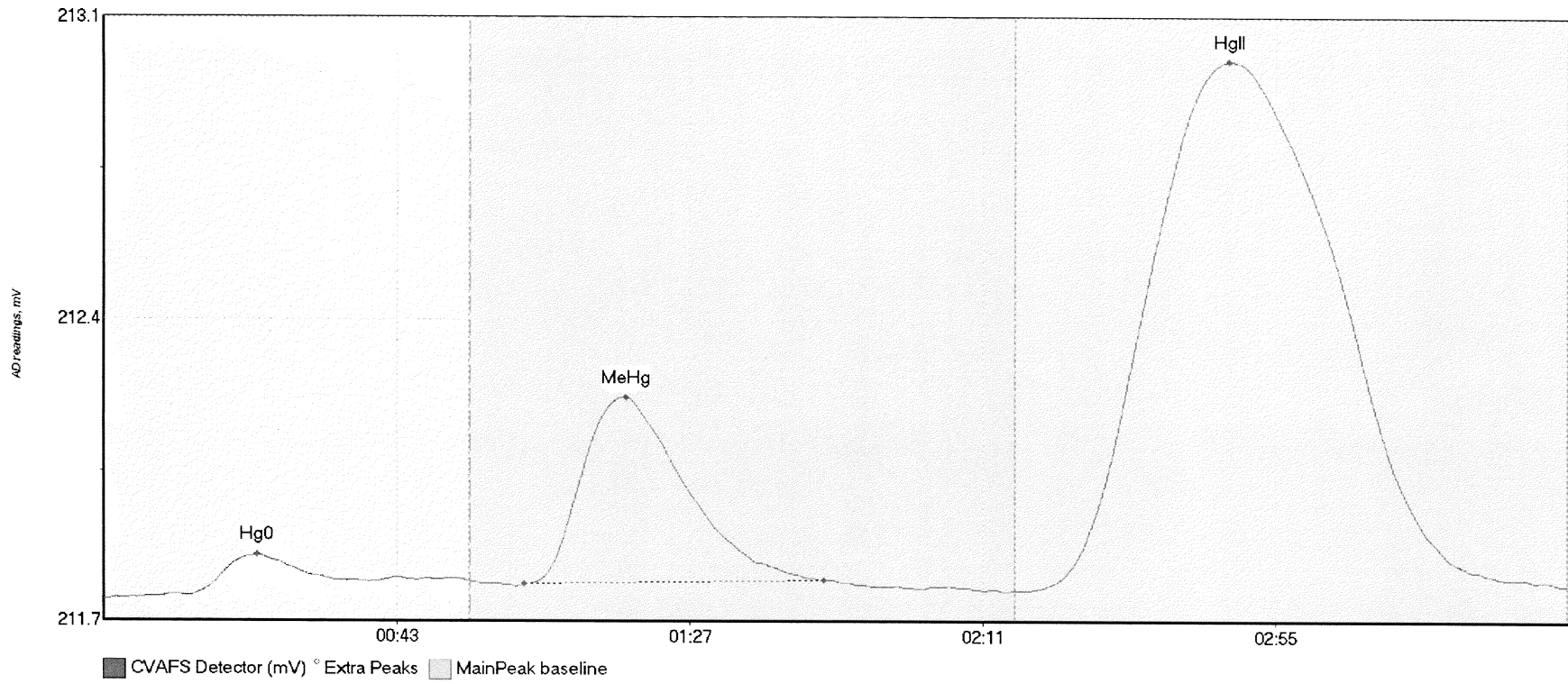
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-15 Hg0	9.363	13.2	48.7	211.76	211.79	21.7	0.069	OK	211.7677	0.00	0.01	
1708240-15 MeHg	157.869	63.2	111.7	211.79	211.80	77.5	0.863	OK	211.7677	0.00	0.01	
1708240-15 HgII	204.159	139.9	215.0	211.77	211.78	168.8	0.654	OK	211.7677	0.00	0.01	

#38: 1710535-02



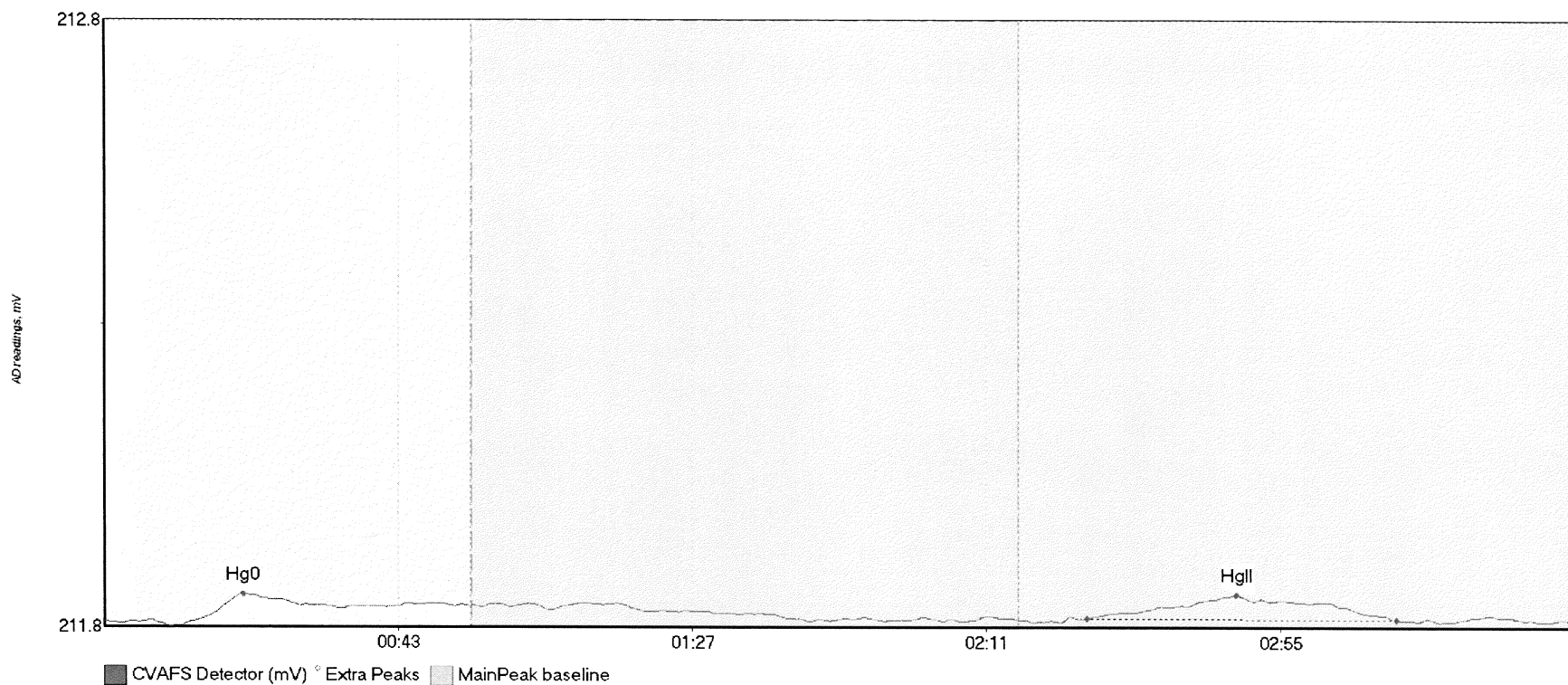
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710535-02 Hg0	6.082	12.9	33.9	211.77	211.80	22.8	0.066	OK	211.7713	0.00	0.01	
1710535-02 MeHg	276.791	63.0	119.4	211.79	211.79	77.6	1.479	OK	211.7713	0.00	0.01	
1710535-02 HgII	3.169	156.3	184.5	211.79	211.79	169.0	0.018	OK	211.7713	0.00	0.01	

#39: 1710626-01



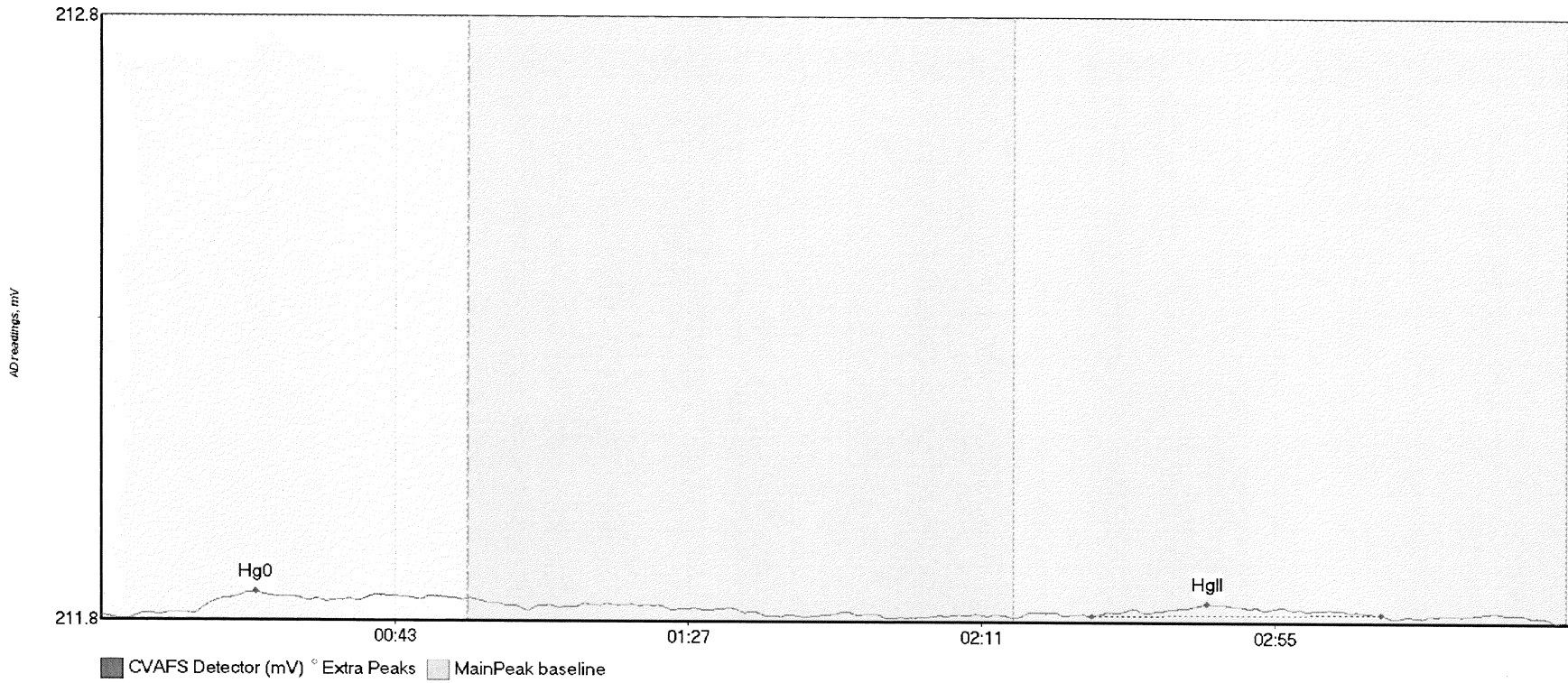
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710626-01 Hg0	9.355	5.5	39.7	211.77	211.81	23.0	0.097	OK	211.7705	0.00	0.03	
1710626-01 MeHg	75.511	63.2	108.2	211.80	211.81	78.4	0.426	OK	211.7705	0.00	0.03	
1710626-01 HgII	386.862	138.8	219.6	211.79	211.80	169.1	1.207	OK	211.7705	0.00	0.03	

#40: F710421-BLK8



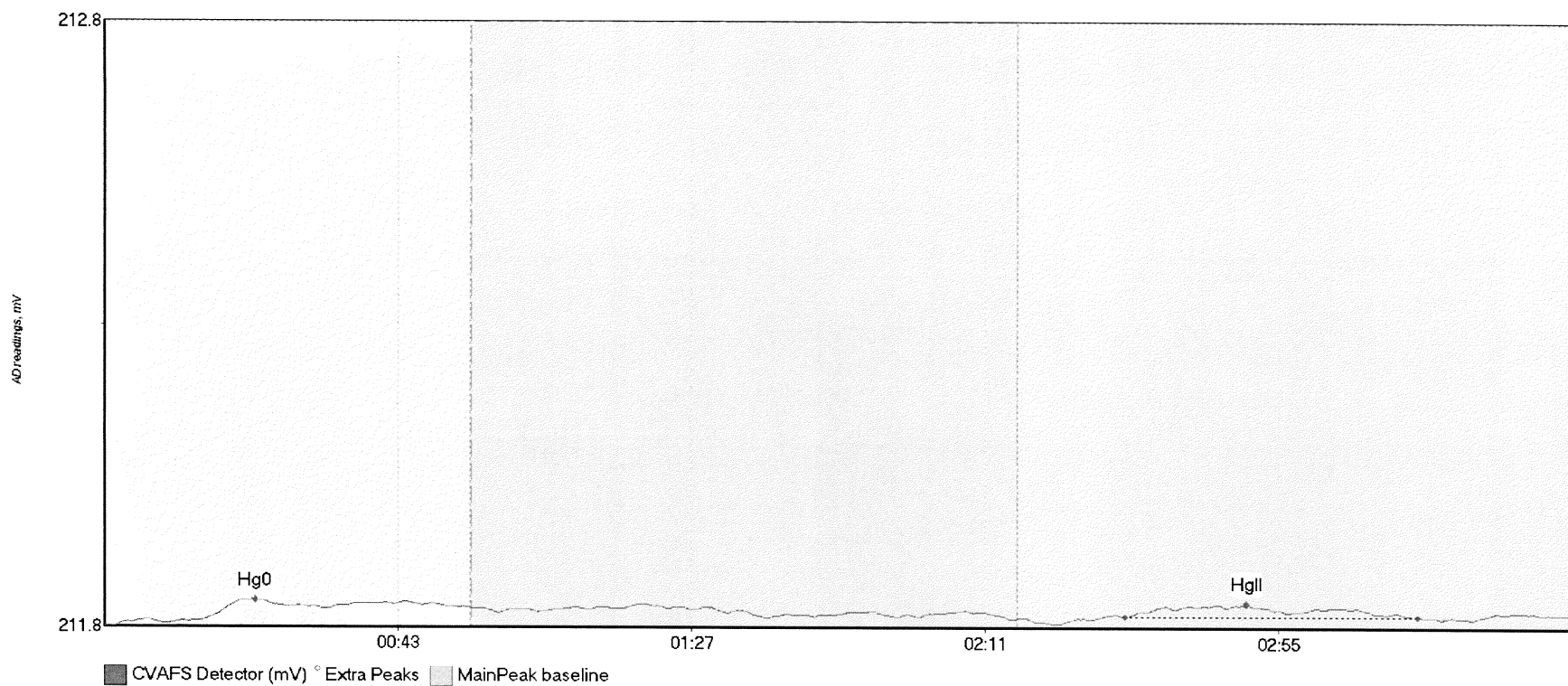
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLK8 Hg	3.773	13.4	35.6	211.79	211.82	20.9	0.045	OK	211.7936	0.00	0.00	
F710421-BLK8 Hg	10.092	147.2	193.4	211.80	211.80	169.4	0.039	OK	211.7936	0.00	0.00	017

#41: F710421-BLK9



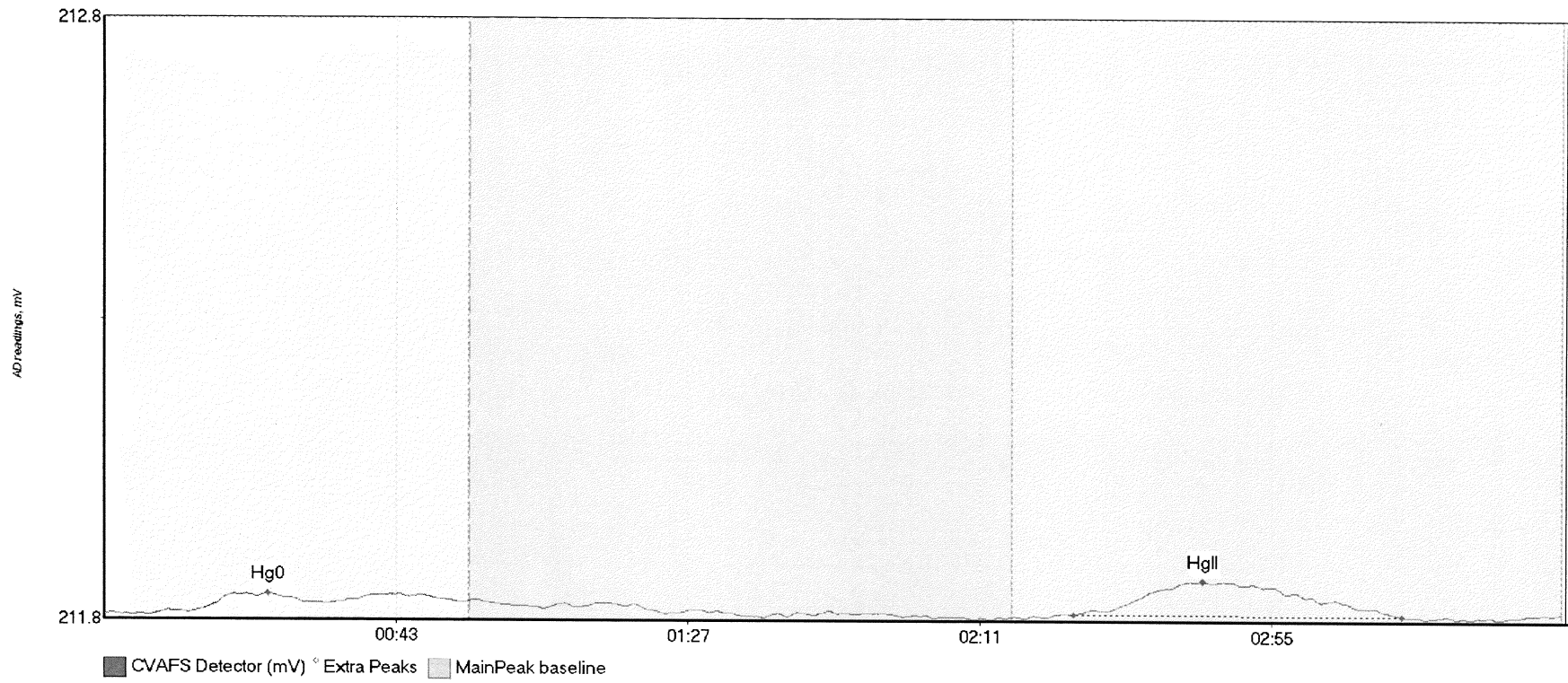
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLK9 Hg	2.883	14.0	33.6	211.79	211.81	23.1	0.036	OK	211.7823	0.00	0.00	
F710421-BLK9 Hg	4.419	148.6	192.0	211.78	211.79	165.9	0.021	OK	211.7823	0.00	0.00	017

#42: F710421-BLKA



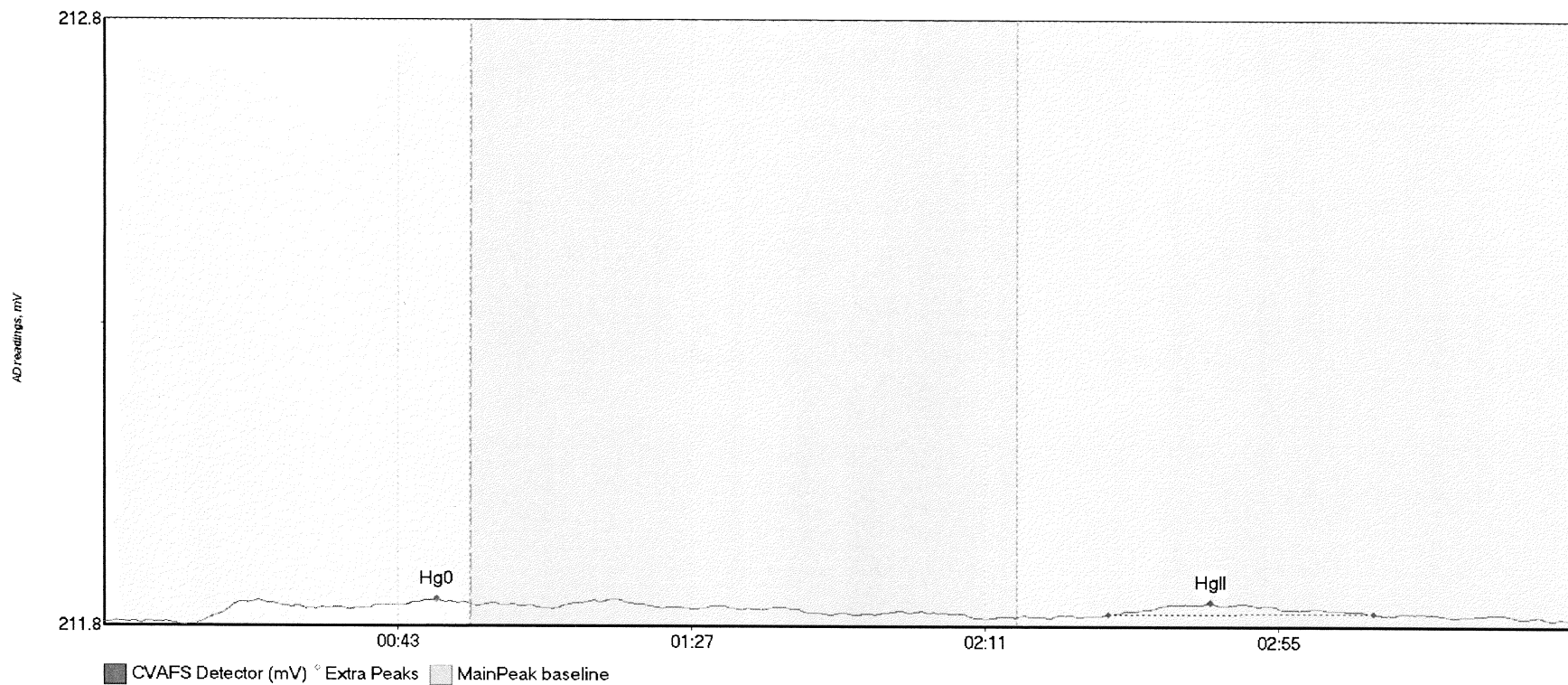
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLKA Hg	2.571	9.4	33.4	211.78	211.81	22.6	0.040	OK	211.7760	0.00	0.02	
F710421-BLKA Hg	5.395	153.0	196.9	211.79	211.79	171.2	0.020	OK	211.7760	0.00	0.02	117

#43: *F710421-BLKB



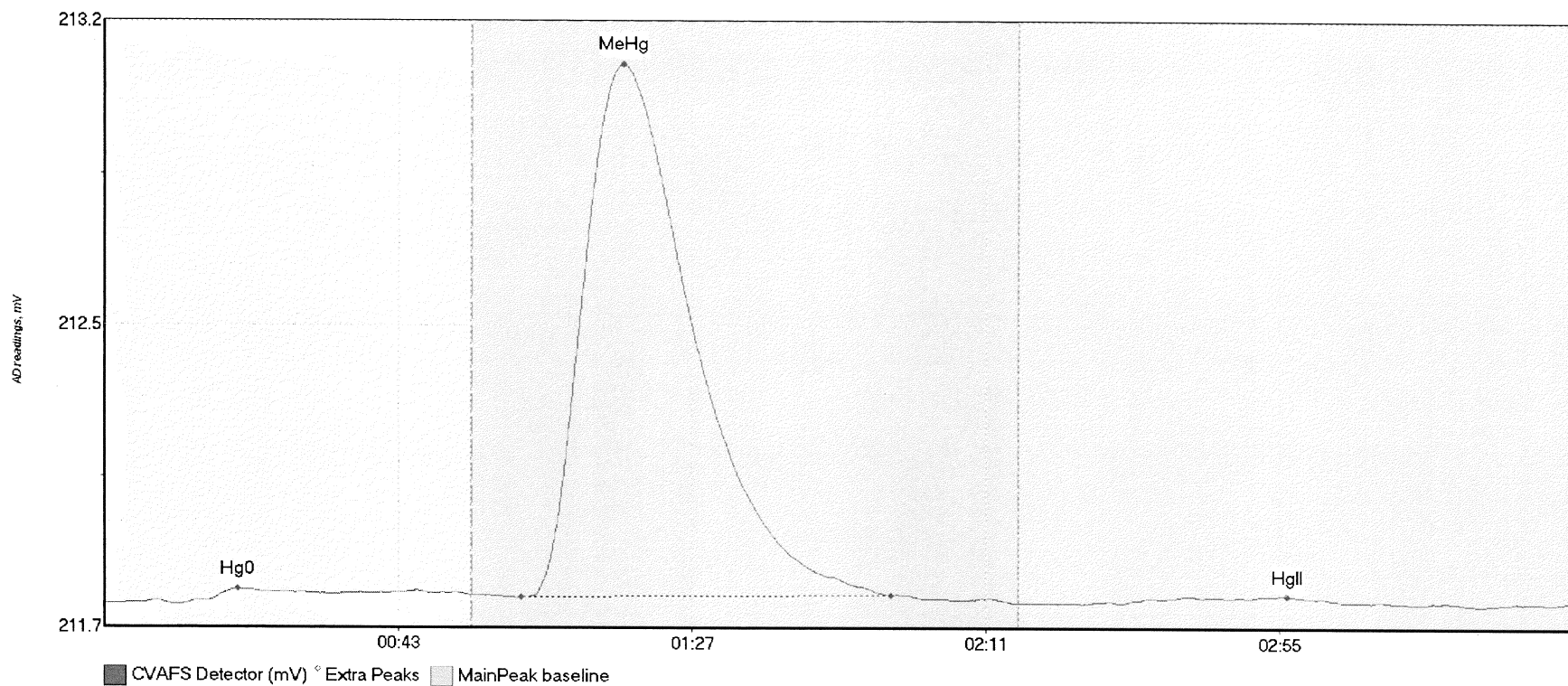
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLKB H	2.777	12.6	33.8	211.79	211.81	24.7	0.031	OK	211.7881	0.00	0.00	
*F710421-BLKB H	15.283	146.1	195.8	211.79	211.79	165.6	0.055	OK	211.7881	0.00	0.00	017

#44: *F710421-BLKC



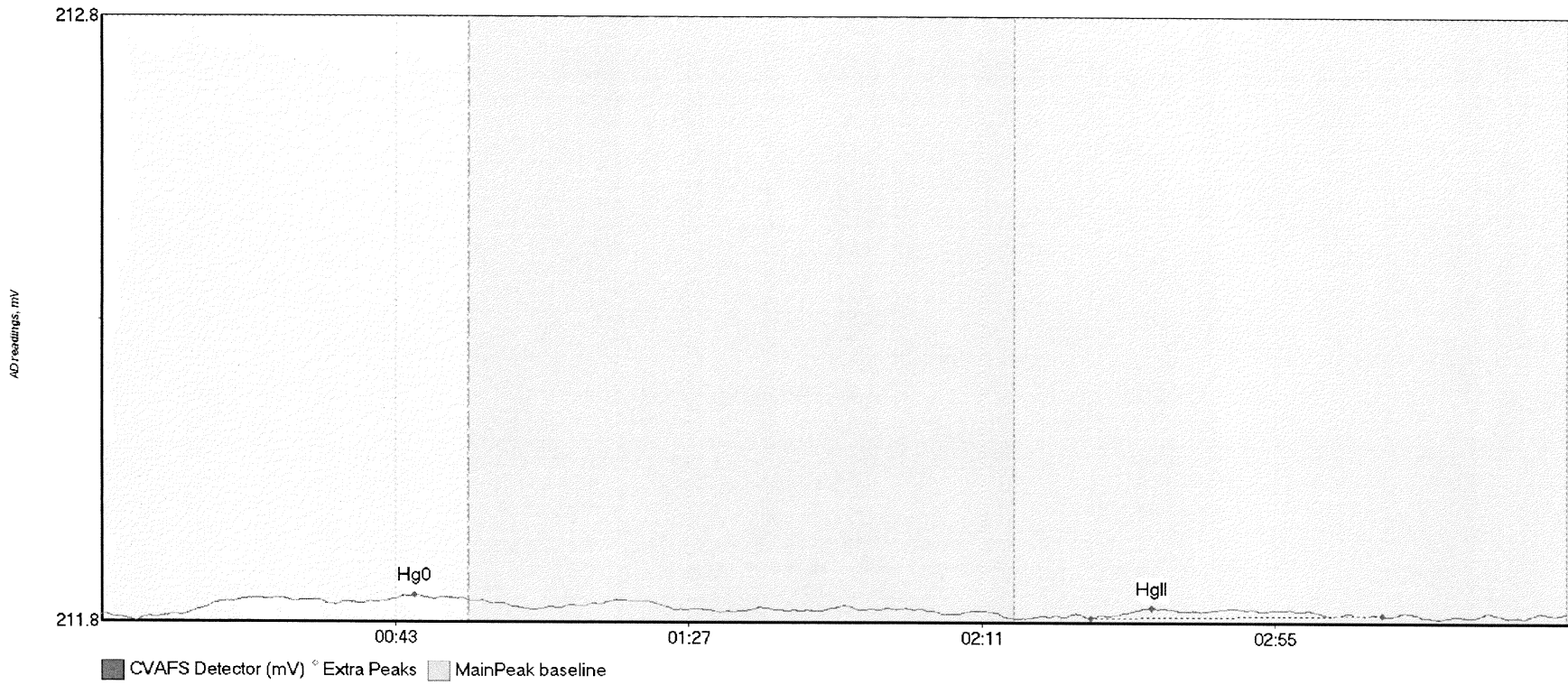
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLKC H	5.457	13.4	55.0	211.78	211.81	49.9	0.040	CT	211.7847	0.00	0.01	
*F710421-BLKC H	4.041	150.6	190.3	211.80	211.80	165.9	0.019	OK	211.7847	0.00	0.01	017

#45: SEQ-CCV3



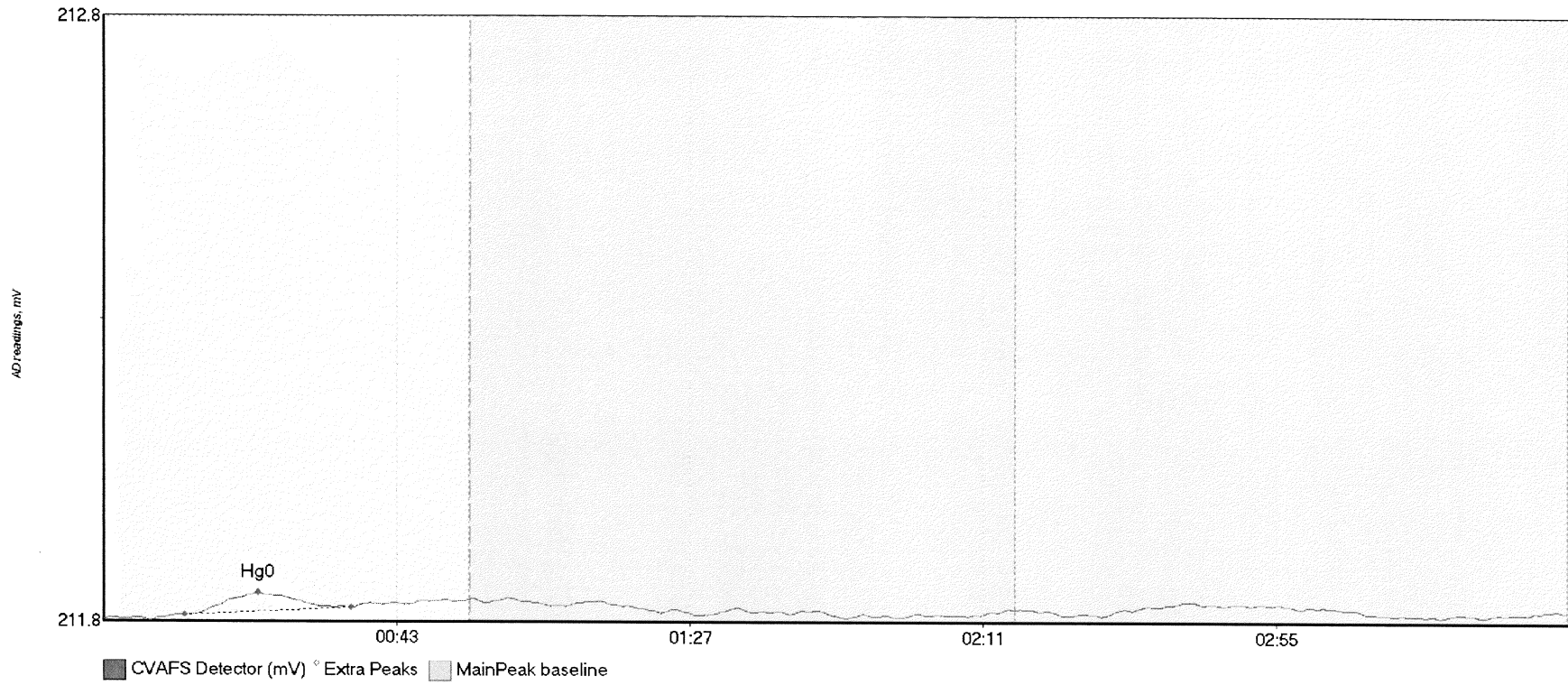
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	6.210	11.7	55.0	211.79	211.82	20.0	0.035	CT	211.7963	0.00	0.00	
SEQ-CCV3 MeHg	242.664	62.5	117.9	211.81	211.82	77.8	1.280	OK	211.7963	0.00	0.00	
SEQ-CCV3 HgII	3.636	152.1	185.6	211.80	211.80	177.2	0.019	OK	211.7963	0.00	0.00	

#46: SEQ-CCB3



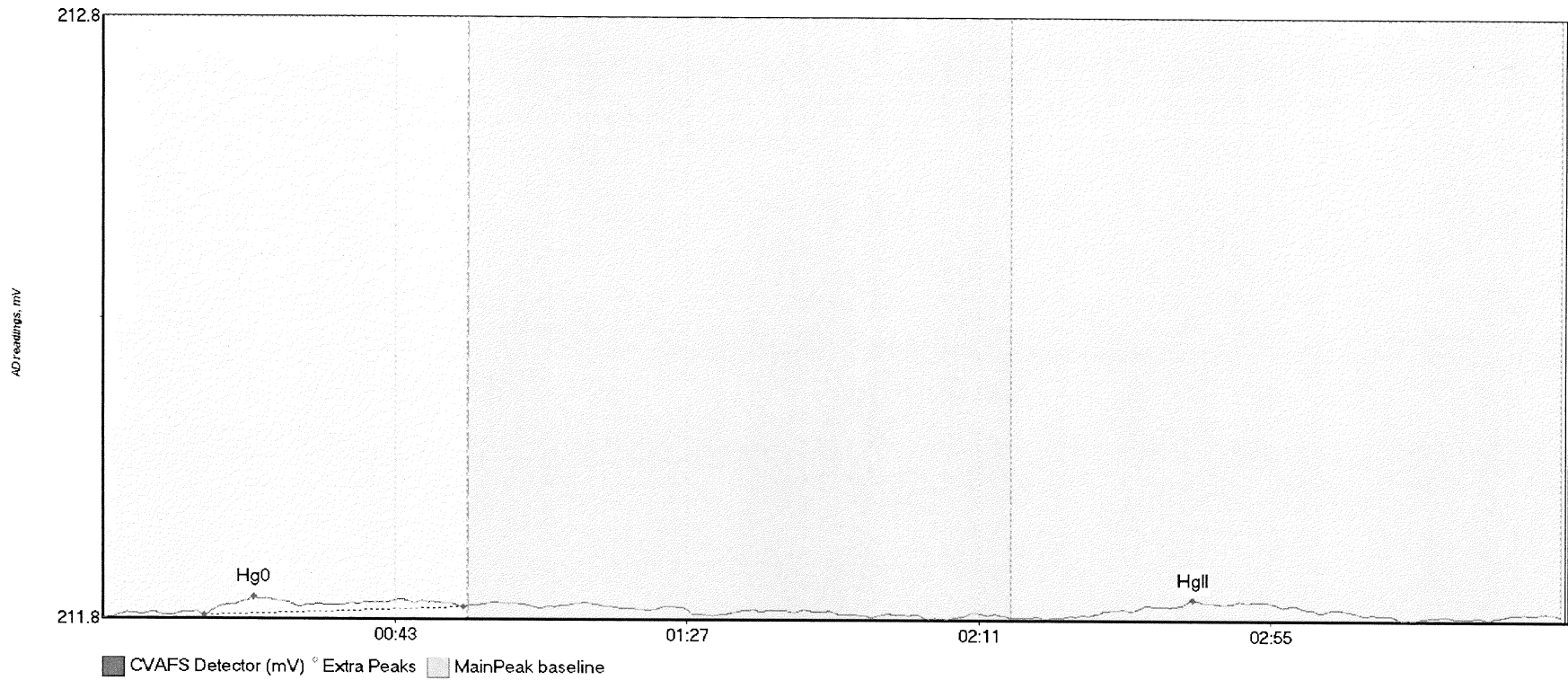
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	4.957	12.0	55.0	211.78	211.81	46.8	0.033	CT	211.7848	0.00	0.00	
SEQ-CCB3 HgII	3.815	148.3	192.2	211.78	211.78	157.4	0.017	OK	211.7848	0.00	0.00	017

#47: *F710421-BLKD



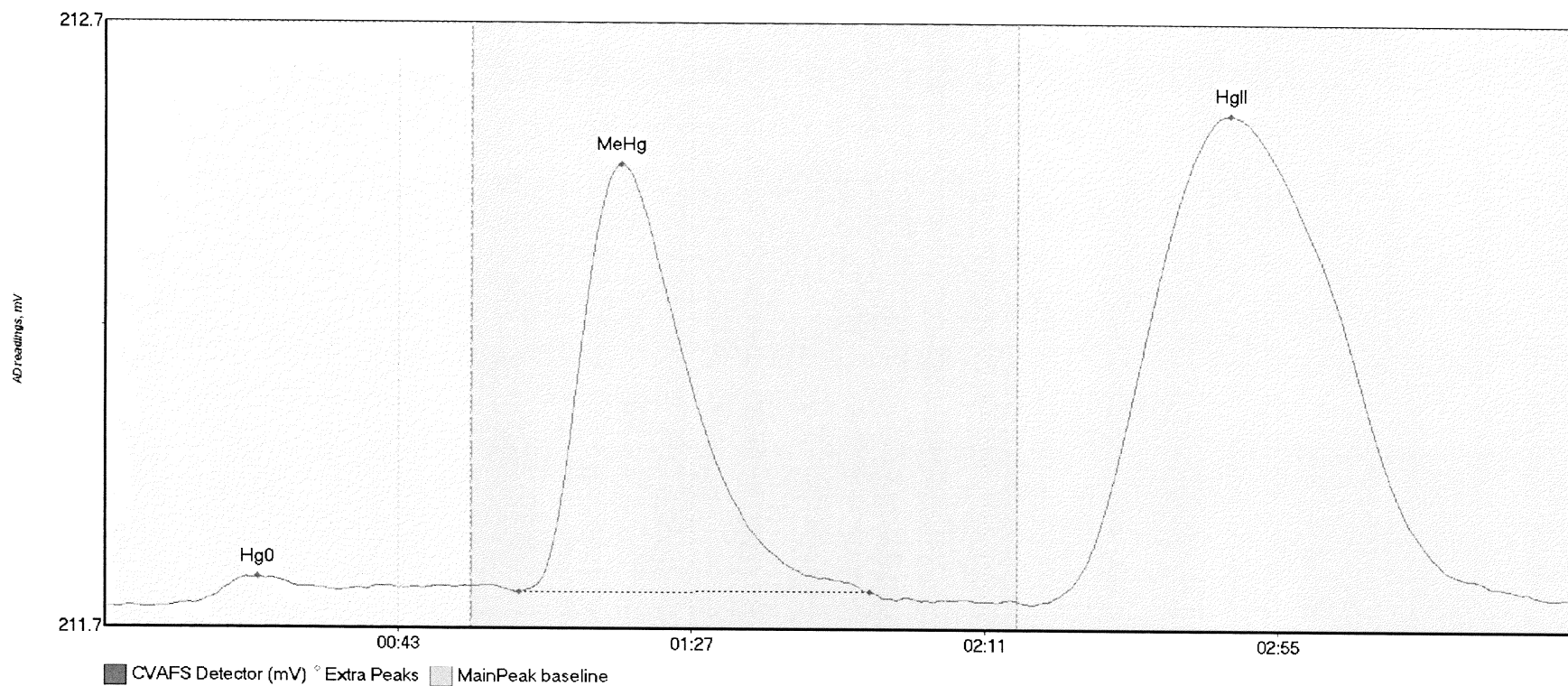
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLKD	3.755	12.1	37.2	211.78	211.79	23.1	0.037	OK	211.7747	0.00	0.01	017

#48: *F710421-BLKE



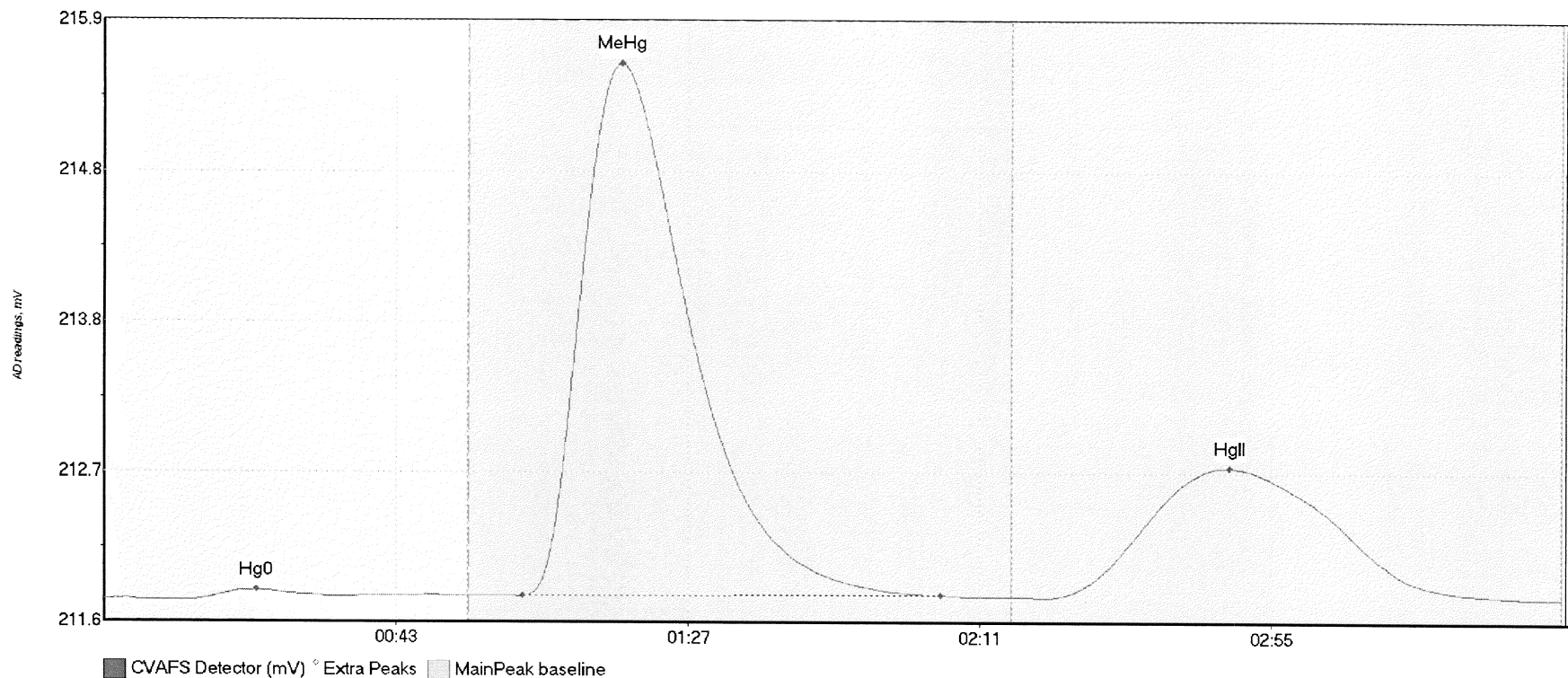
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLKE H	5.160	15.3	54.3	211.78	211.79	22.7	0.029	OK	211.7733	0.00	0.01	
*F710421-BLKE H	5.872	148.5	190.1	211.78	211.78	164.3	0.026	OK	211.7733	0.00	0.01	017

#49: F710421-DUP2



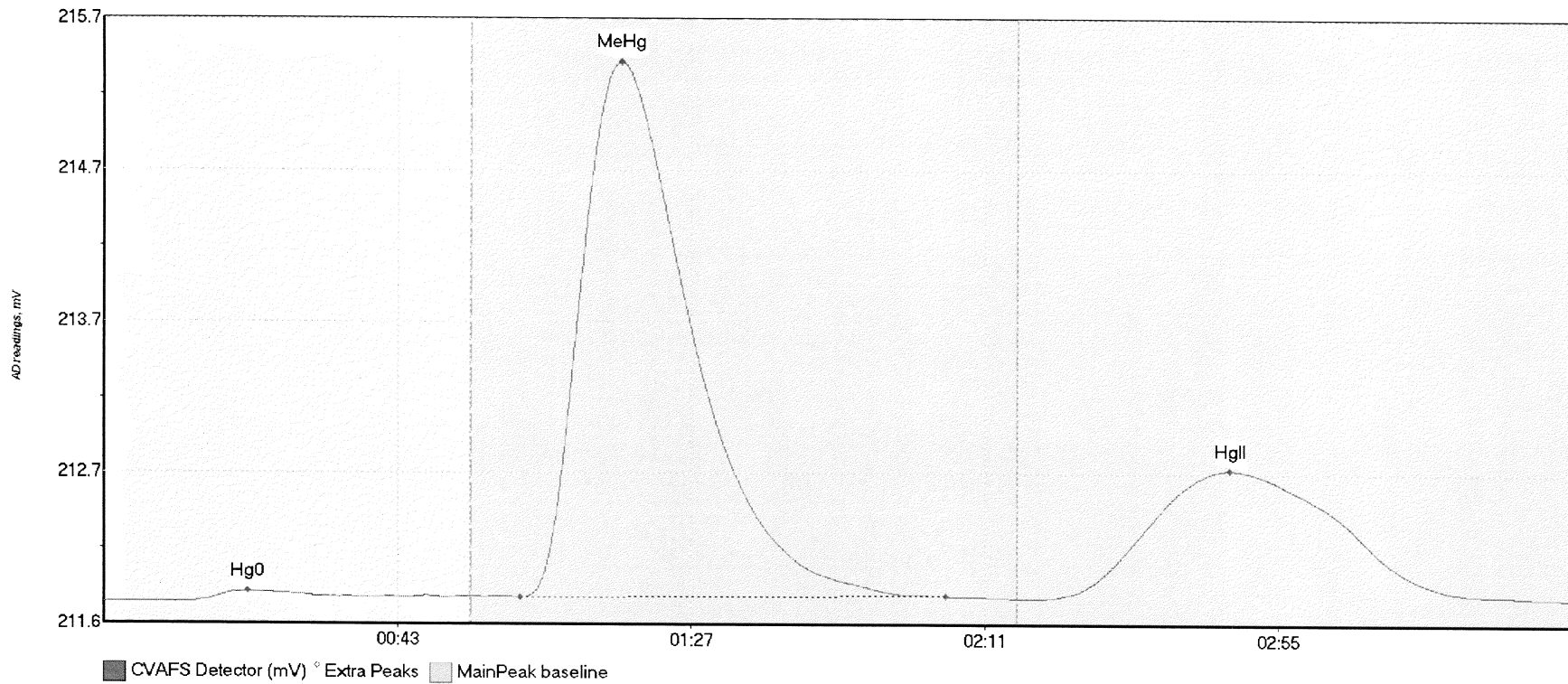
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-DUP2 Hg	3.900	13.5	35.2	211.79	211.81	23.0	0.043	OK	211.7824	0.00	0.02	
F710421-DUP2 Me	130.011	62.1	114.8	211.81	211.81	77.5	0.708	OK	211.7824	0.00	0.02	
F710421-DUP2 Hg	256.092	141.1	218.1	211.79	211.80	168.8	0.806	OK	211.7824	0.00	0.02	017

#50: F710421-MS3



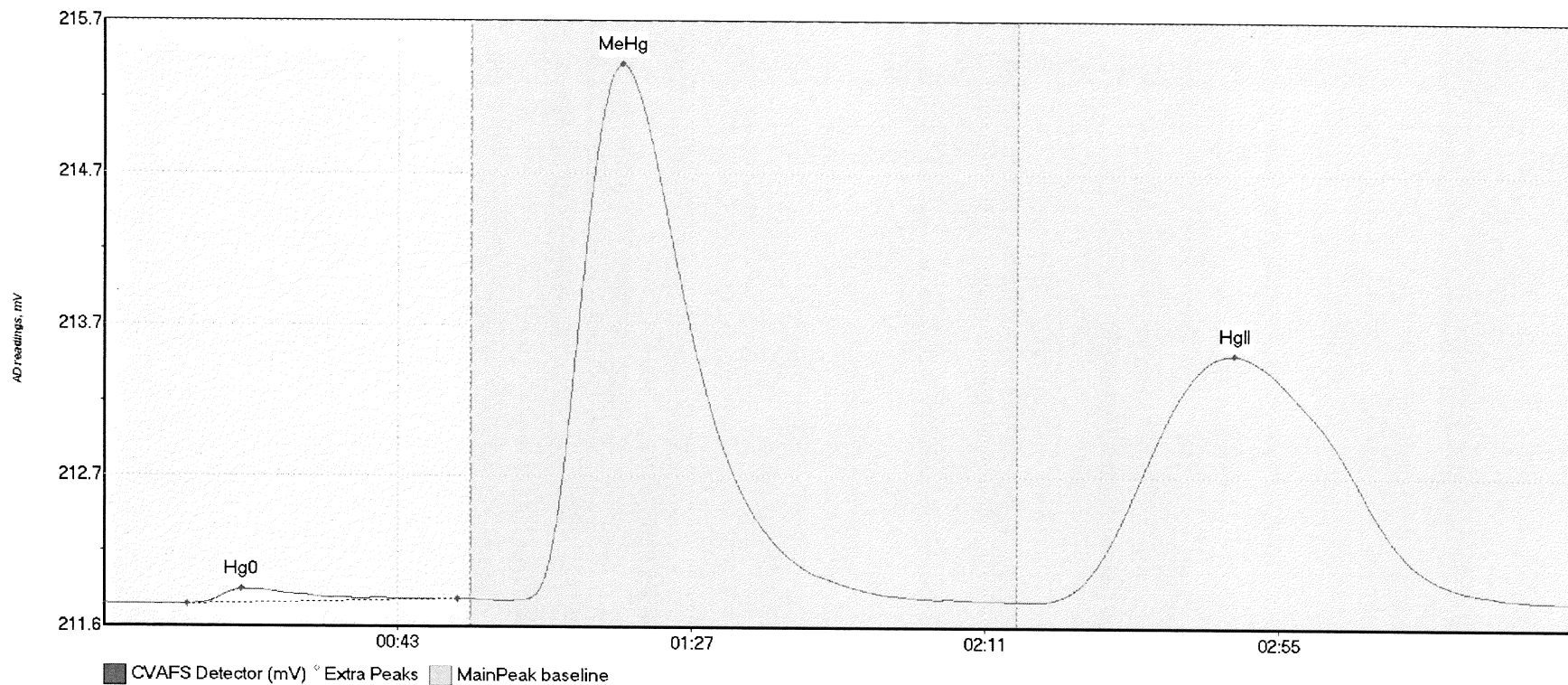
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MS3 Hg0	6.616	11.8	34.1	211.79	211.82	23.0	0.075	OK	211.8013	0.00	0.01	
F710421-MS3 MeH	714.185	63.1	126.2	211.82	211.83	78.0	3.771	OK	211.8013	0.00	0.01	
F710421-MS3 HgI	291.920	141.7	213.2	211.81	211.82	169.8	0.927	OK	211.8013	0.00	0.01	

#51: F710421-MSD3



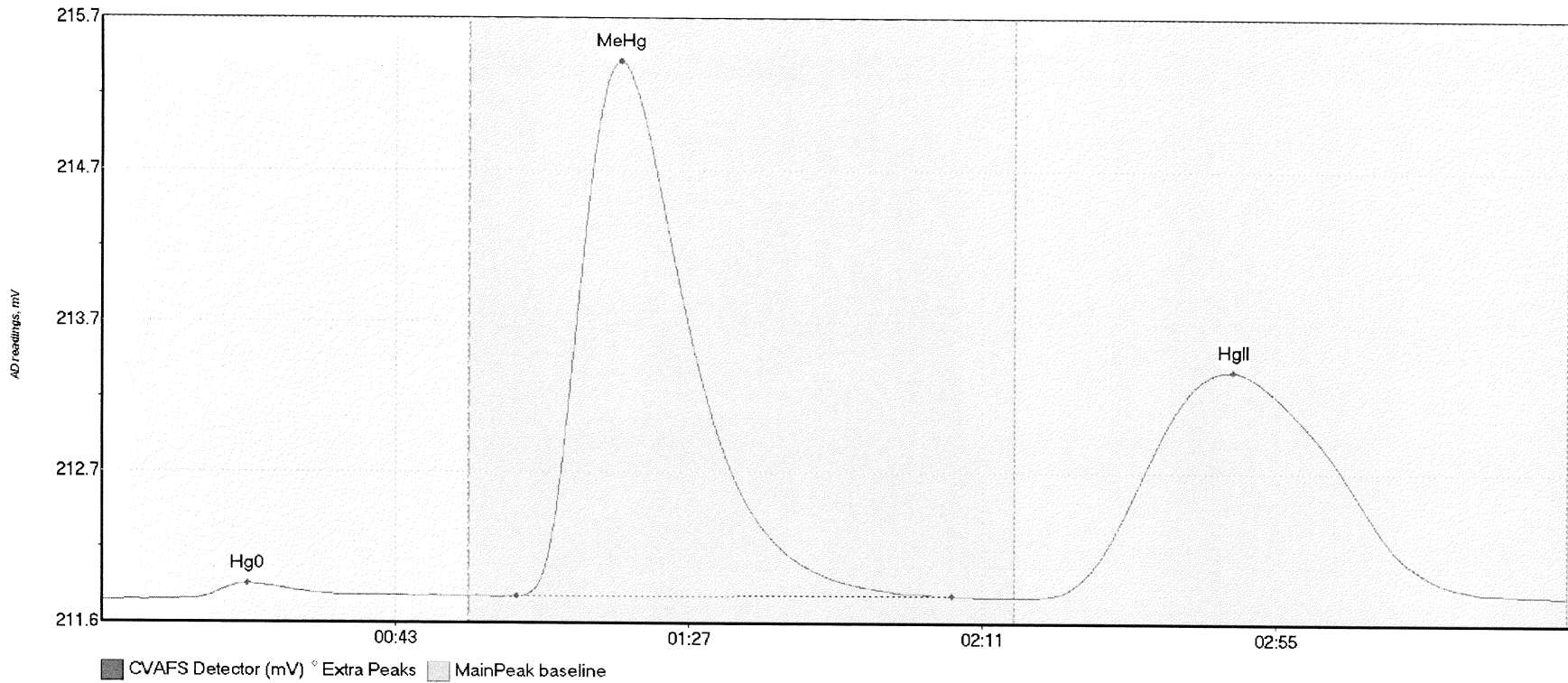
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MSD3 Hg	10.419	11.4	51.7	211.79	211.83	21.6	0.072	OK	211.7945	0.00	0.03	
F710421-MSD3 Me	689.627	62.5	126.1	211.82	211.84	77.6	3.625	OK	211.7945	0.00	0.03	
F710421-MSD3 Hg	280.911	140.0	216.3	211.82	211.82	168.8	0.875	OK	211.7945	0.00	0.03	

#52: F710421-MS4



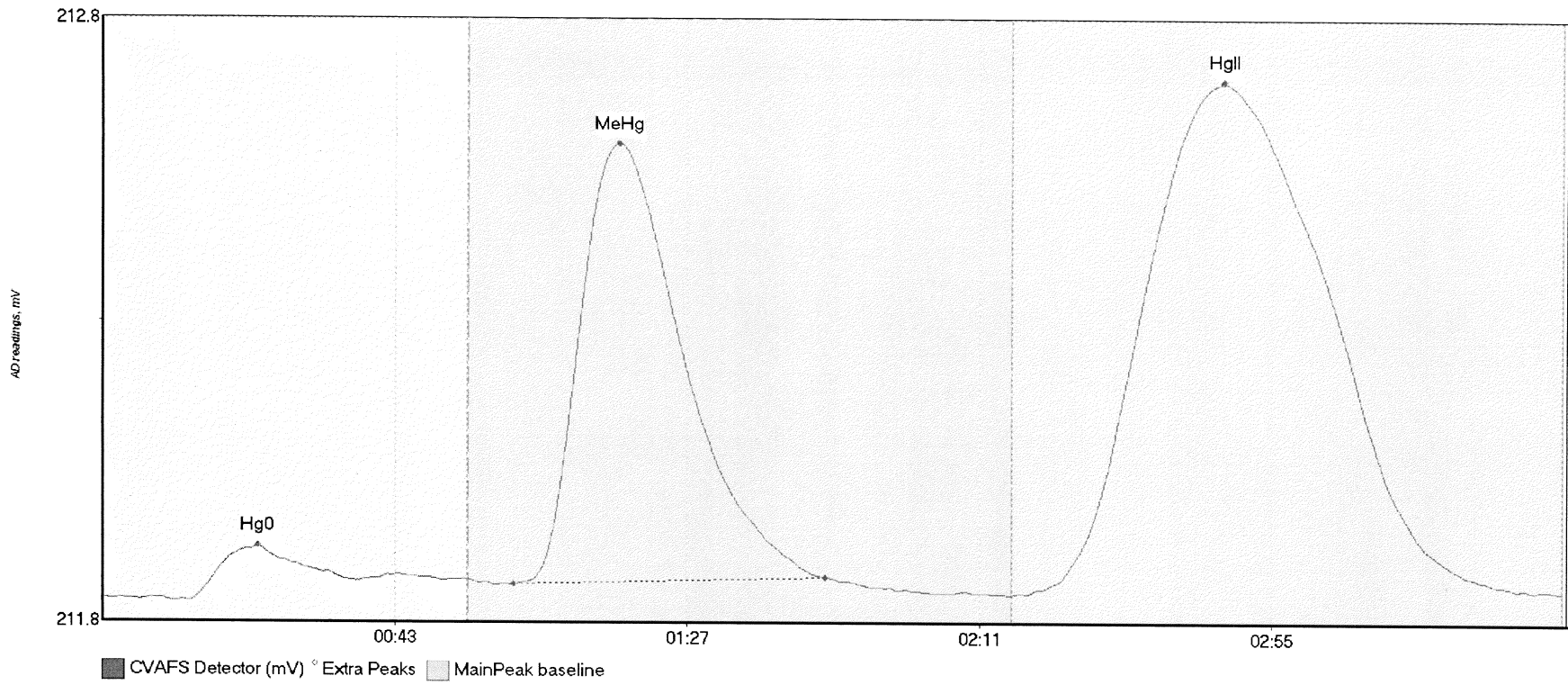
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MS4 Hg0	14.316	12.5	53.0	211.80	211.83	20.6	0.102	OK	211.8013	0.00	0.03	
F710421-MS4 MeH	685.130	61.7	124.8	211.83	211.84	77.6	3.625	OK	211.8013	0.00	0.03	
F710421-MS4 HgI	539.443	139.1	218.4	211.82	211.83	169.3	1.680	OK	211.8013	0.00	0.03	

#53: F710421-MSD4



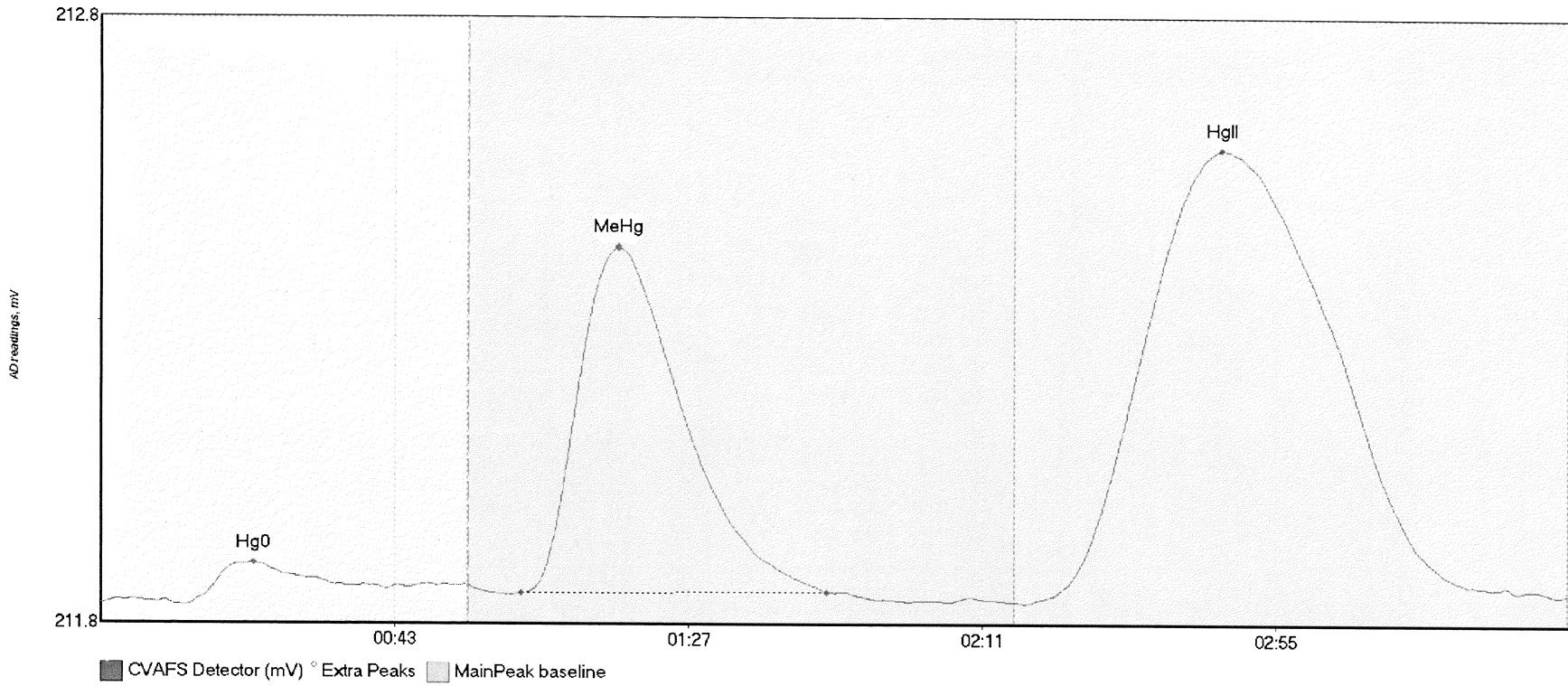
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MSD4 Hg	13.992	6.5	53.0	211.80	211.83	21.9	0.106	OK	211.7953	0.00	0.04	
F710421-MSD4 Me	677.199	62.2	127.4	211.83	211.83	77.7	3.580	OK	211.7953	0.00	0.04	
F710421-MSD4 Hg	480.198	140.1	219.8	211.82	211.83	169.6	1.522	CT	211.7953	0.00	0.04	

#54: 1708118-01RE1



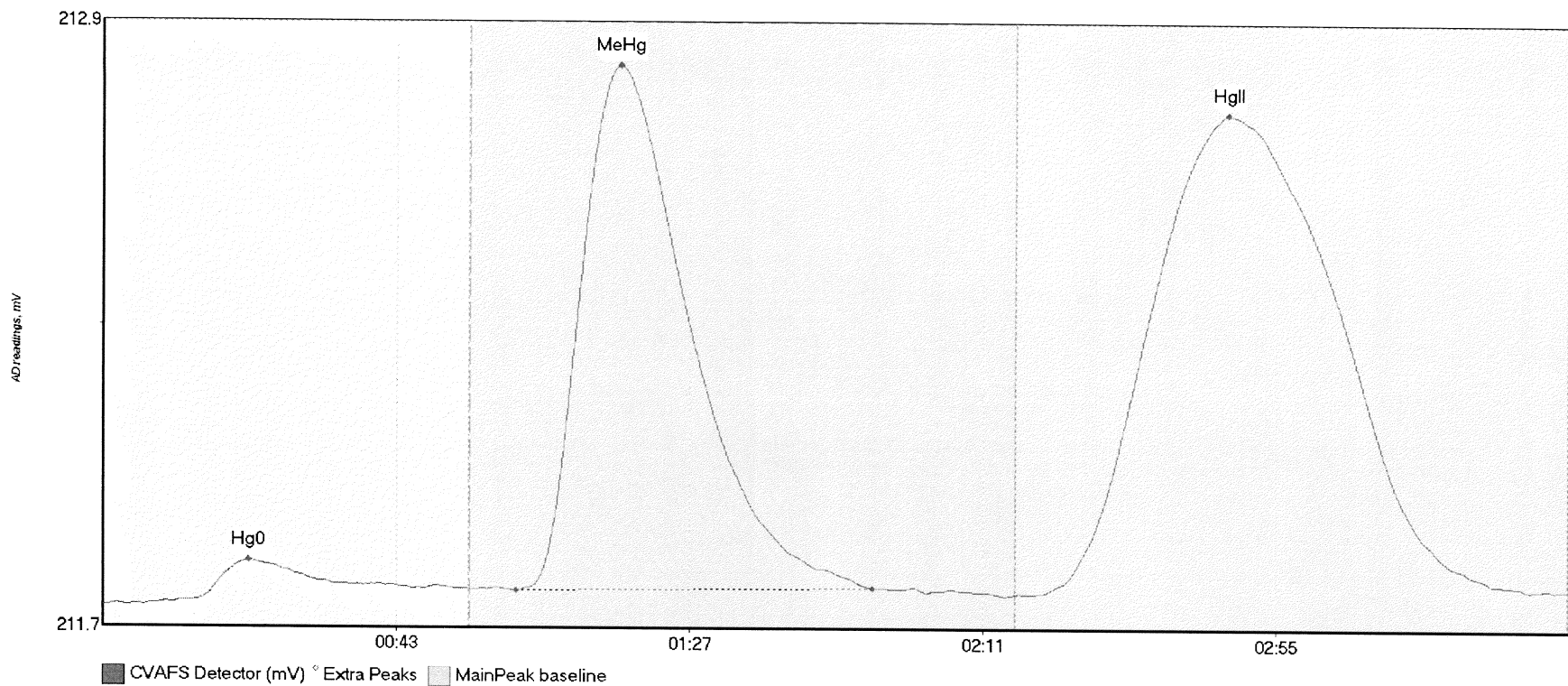
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-01RE1 H	9.810	12.9	38.5	211.79	211.82	23.3	0.091	OK	211.7952	0.00	0.01	
1708118-01RE1 M	130.522	61.8	108.8	211.82	211.83	77.8	0.731	OK	211.7952	0.00	0.01	
1708118-01RE1 H	267.168	139.1	219.8	211.80	211.81	168.8	0.850	CT	211.7952	0.00	0.01	

#55: 1708118-02RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-02RE1 H	8.672	12.8	42.8	211.79	211.81	22.8	0.070	OK	211.7900	0.00	0.02	
1708118-02RE1 M	103.625	62.9	108.7	211.81	211.81	77.5	0.571	OK	211.7900	0.00	0.02	
1708118-02RE1 H	237.034	138.8	218.8	211.79	211.80	167.8	0.750	OK	211.7900	0.00	0.02	017

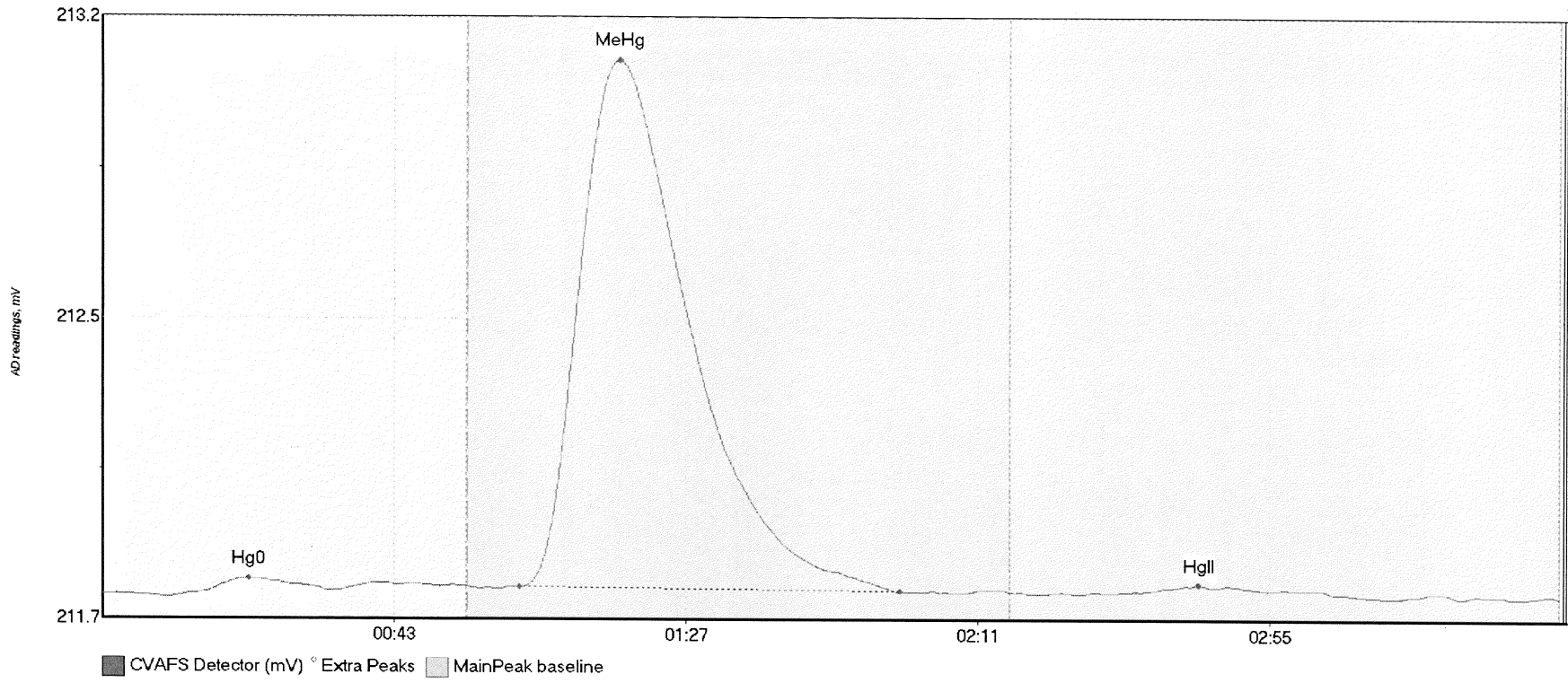
#56: 1708118-03RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-03RE1 H	12.137	8.1	55.0	211.80	211.82	21.9	0.084	CT	211.7918	0.00	0.04	
1708118-03RE1 M	189.696	62.0	115.5	211.82	211.83	77.6	1.015	OK	211.7918	0.00	0.04	
1708118-03RE1 H	294.353	140.6	214.2	211.82	211.83	168.8	0.926	OK	211.7918	0.00	0.04	

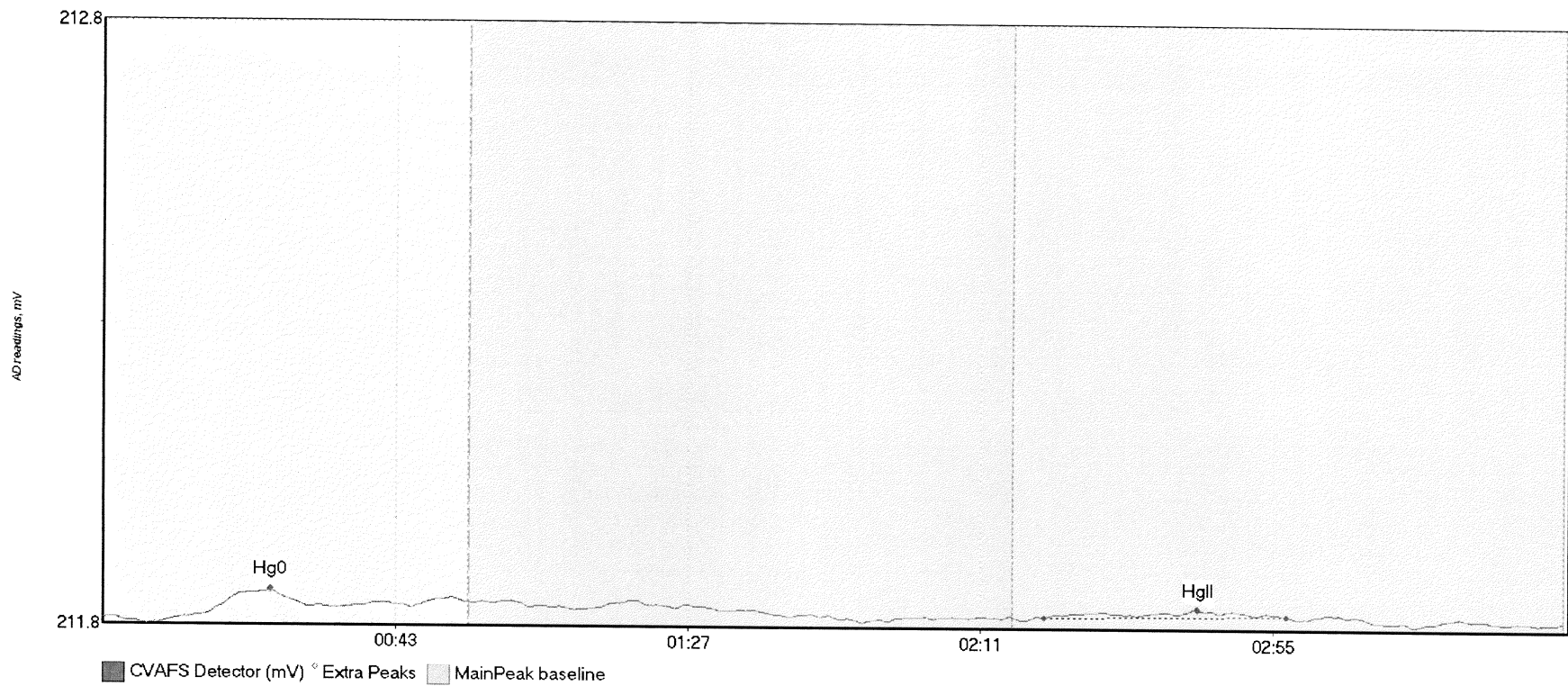
017

#57: SEQ-CCV4



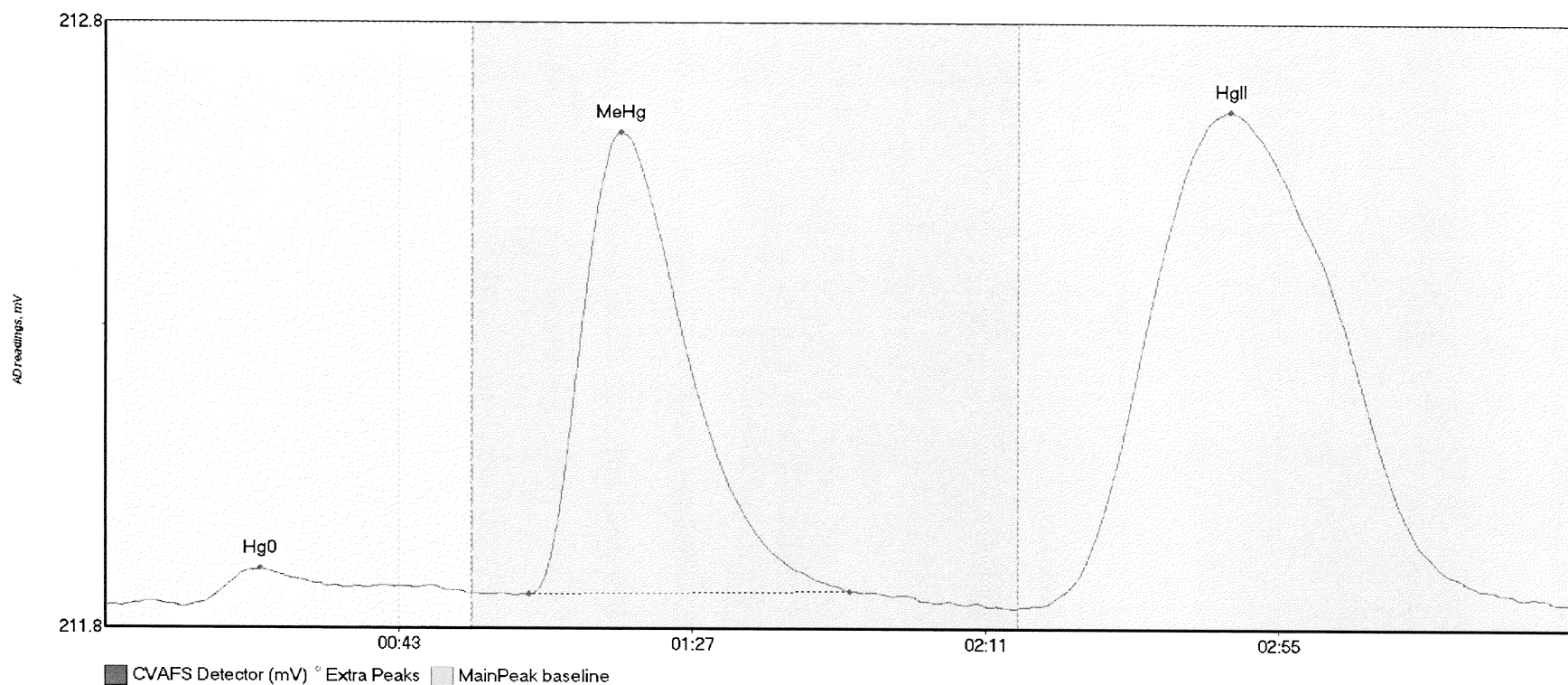
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	3.930	13.9	34.7	211.81	211.81	22.2	0.037	OK	211.8056	0.00	0.00	
SEQ-CCV4 MeHg	251.684	62.8	120.3	211.82	211.81	78.0	1.312	OK	211.8056	0.00	0.00	117
SEQ-CCV4 HgII	1.603	157.3	175.7	211.81	211.82	165.3	0.017	OK	211.8056	0.00	0.00	

#58: SEQ-CCB4



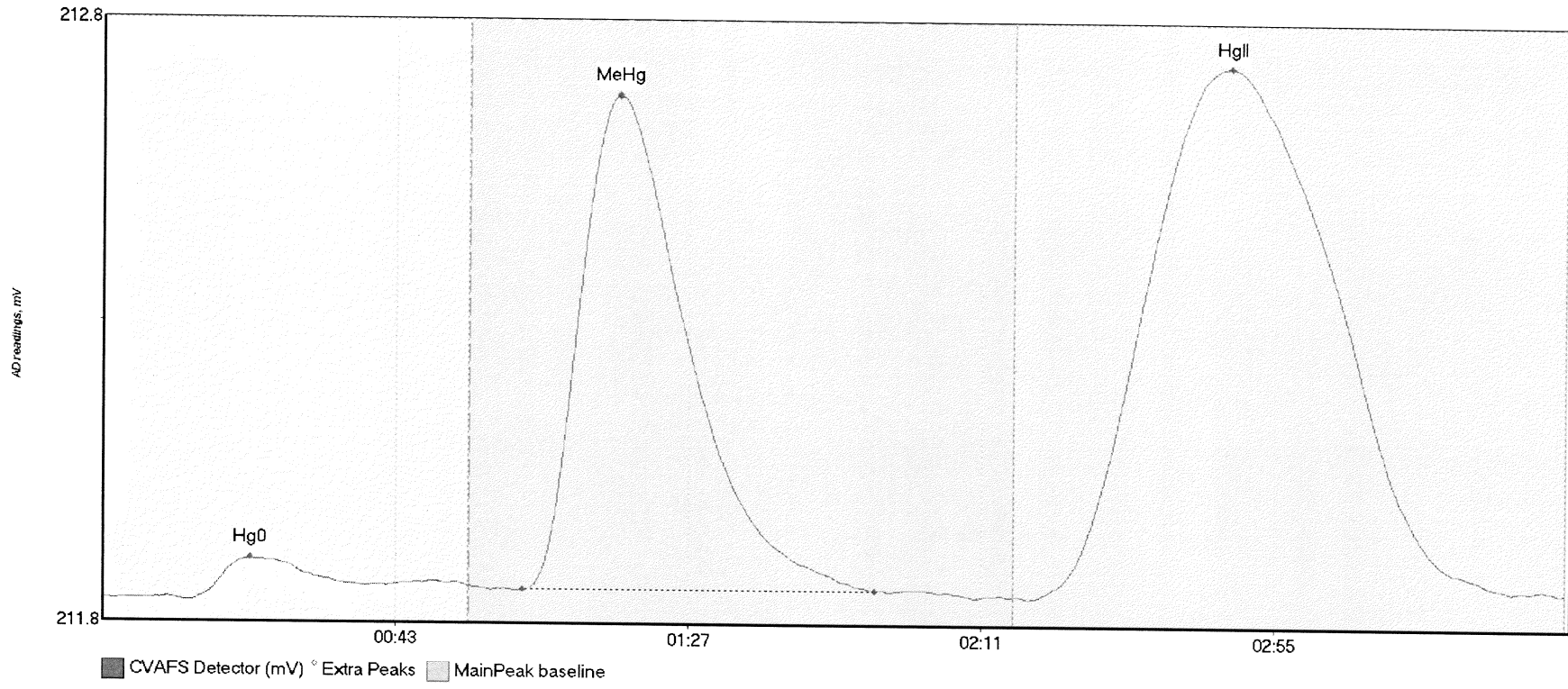
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	3.588	14.7	35.2	211.81	211.82	25.2	0.041	OK	211.8011	0.00	0.00	
SEQ-CCB4 HgII	2.415	141.6	178.0	211.81	211.81	164.6	0.016	OK	211.8011	0.00	0.00	017

#59: 1708118-04RE1



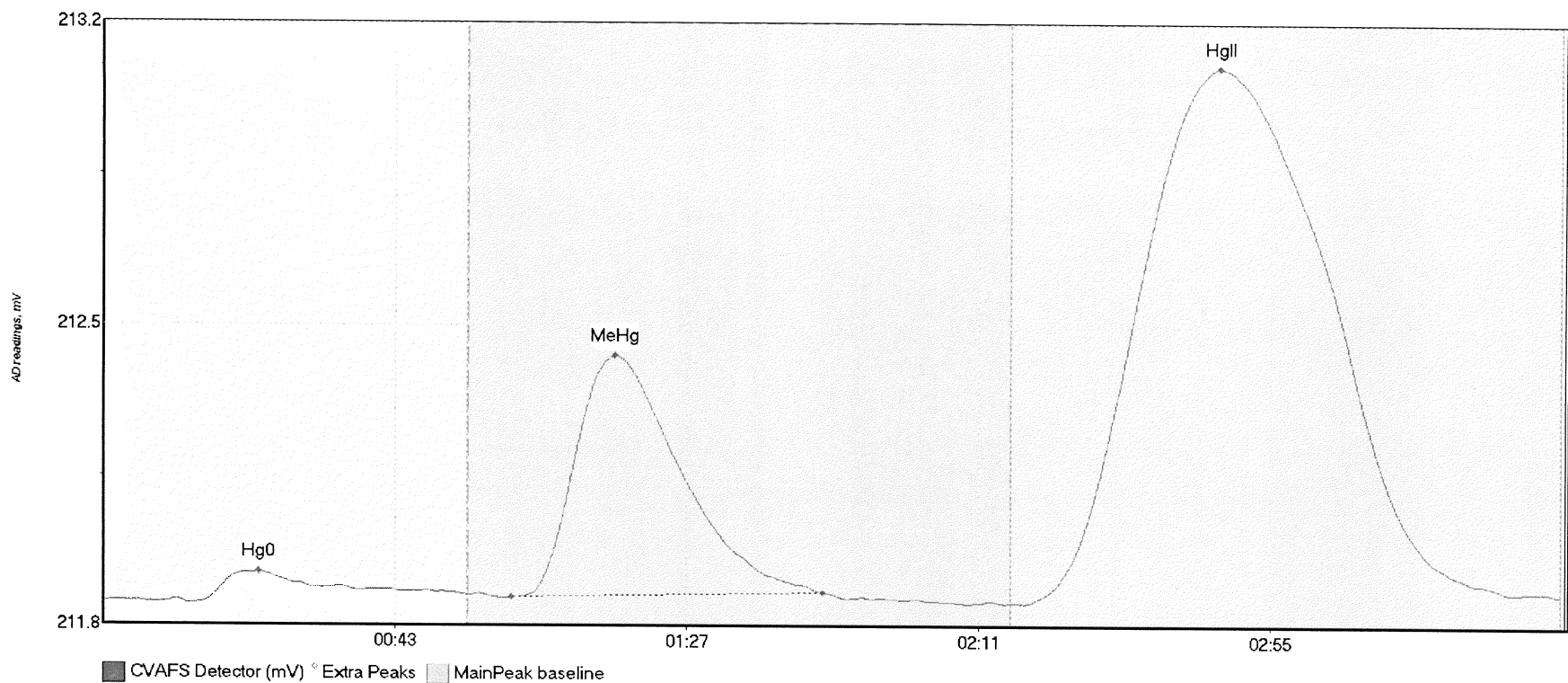
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-04RE1 H	9.465	14.7	54.7	211.81	211.82	23.3	0.056	OK	211.8033	0.00	0.01	
1708118-04RE1 M	138.469	63.6	111.6	211.82	211.83	77.3	0.763	OK	211.8033	0.00	0.01	
1708118-04RE1 H	261.105	140.9	218.5	211.81	211.81	168.7	0.817	OK	211.8033	0.00	0.01	017

#60: 1708118-05RE1



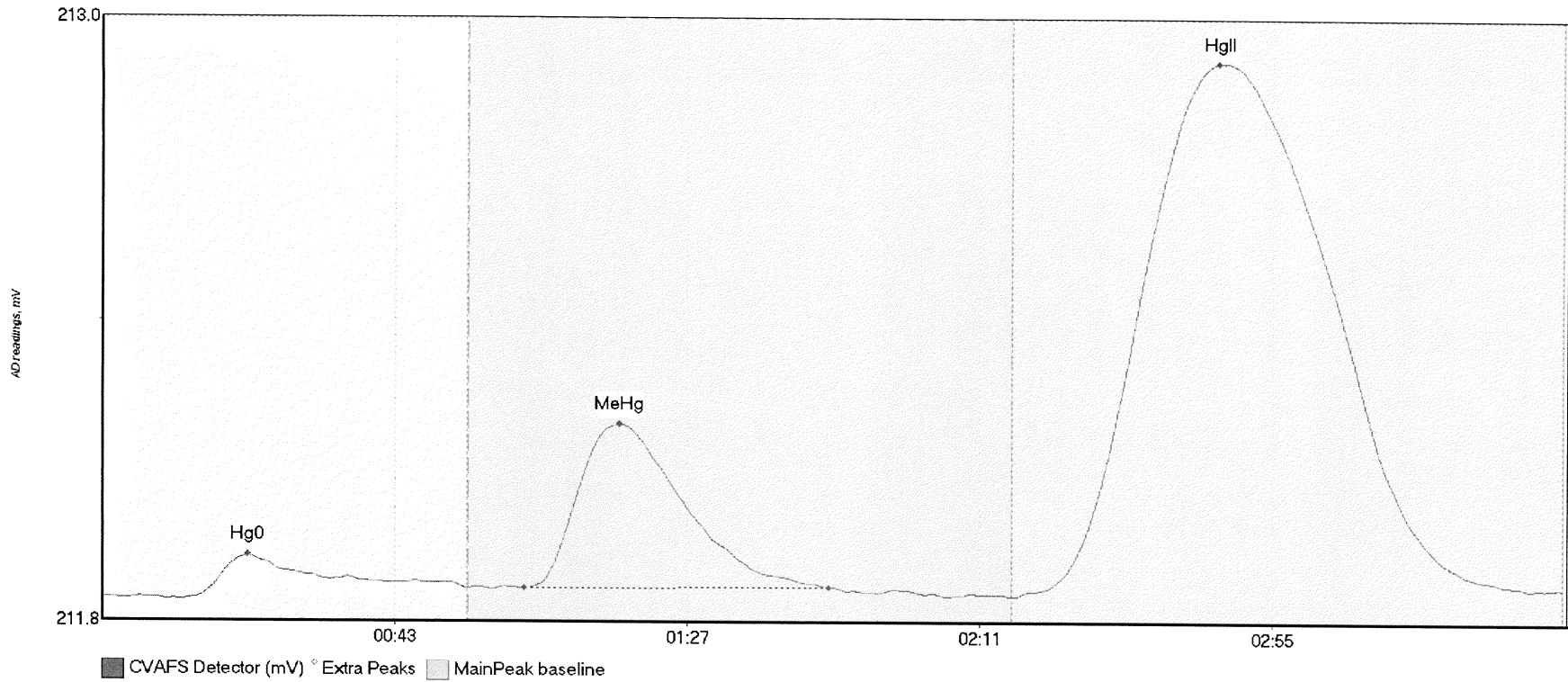
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-05RE1 H	11.660	13.2	55.0	211.80	211.83	22.1	0.076	CT	211.8067	0.00	0.02	
1708118-05RE1 M	165.022	63.0	116.0	211.82	211.83	77.5	0.888	OK	211.8067	0.00	0.02	
1708118-05RE1 H	304.678	139.8	219.2	211.81	211.83	169.3	0.958	OK	211.8067	0.00	0.02	

#61: 1708240-01RE1



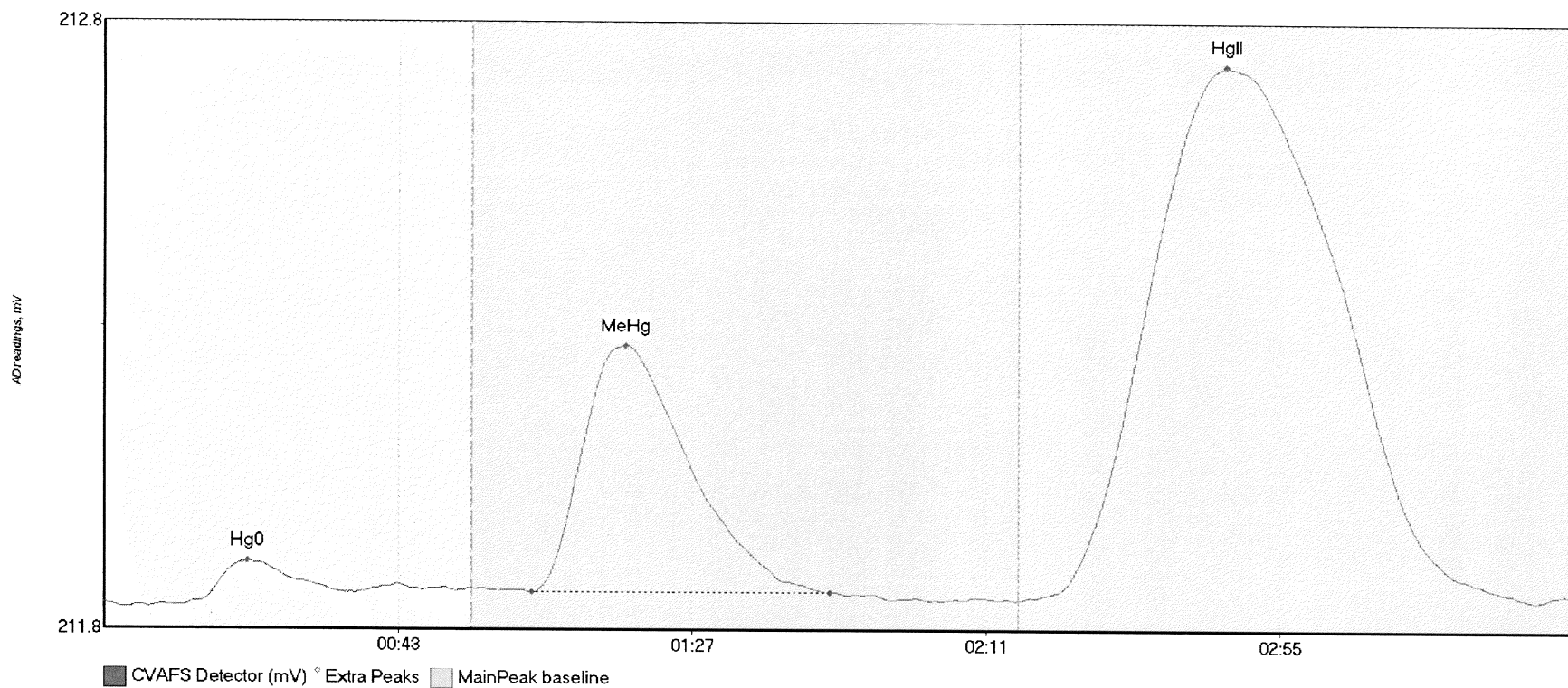
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-01RE1 H	12.214	13.3	55.0	211.81	211.83	23.5	0.076	CT	211.8140	0.00	0.02	
1708240-01RE1 M	105.098	61.6	108.4	211.82	211.84	77.2	0.581	OK	211.8140	0.00	0.02	
1708240-01RE1 H	413.668	139.1	219.3	211.81	211.83	168.3	1.289	OK	211.8140	0.00	0.02	

#62: 1708240-02RE1



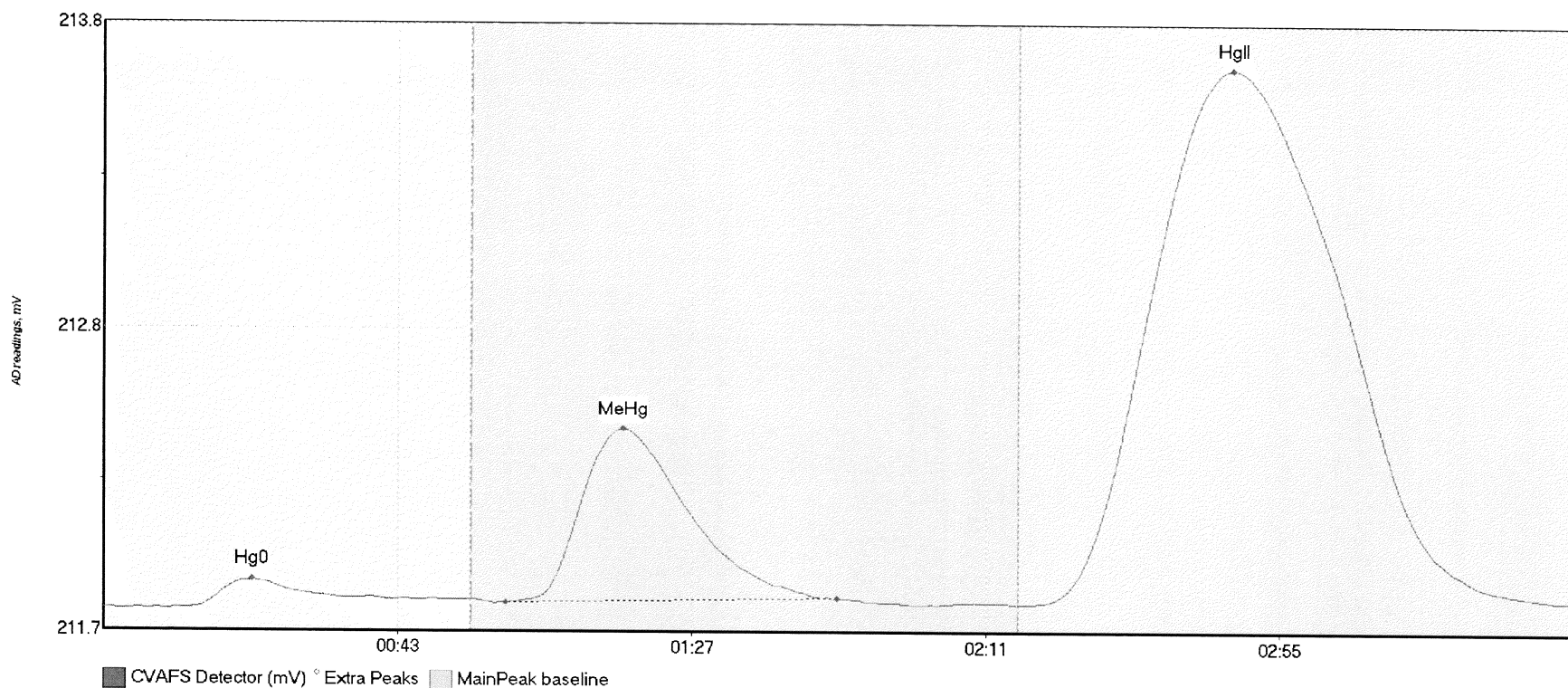
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-02RE1 H	13.500	13.3	54.9	211.80	211.82	21.9	0.086	OK	211.8062	0.00	0.02	
1708240-02RE1 M	61.173	63.5	109.3	211.82	211.83	77.8	0.335	OK	211.8062	0.00	0.02	
1708240-02RE1 H	344.515	137.5	214.9	211.81	211.83	167.9	1.086	OK	211.8062	0.00	0.02	

#63: 1708240-03RE1



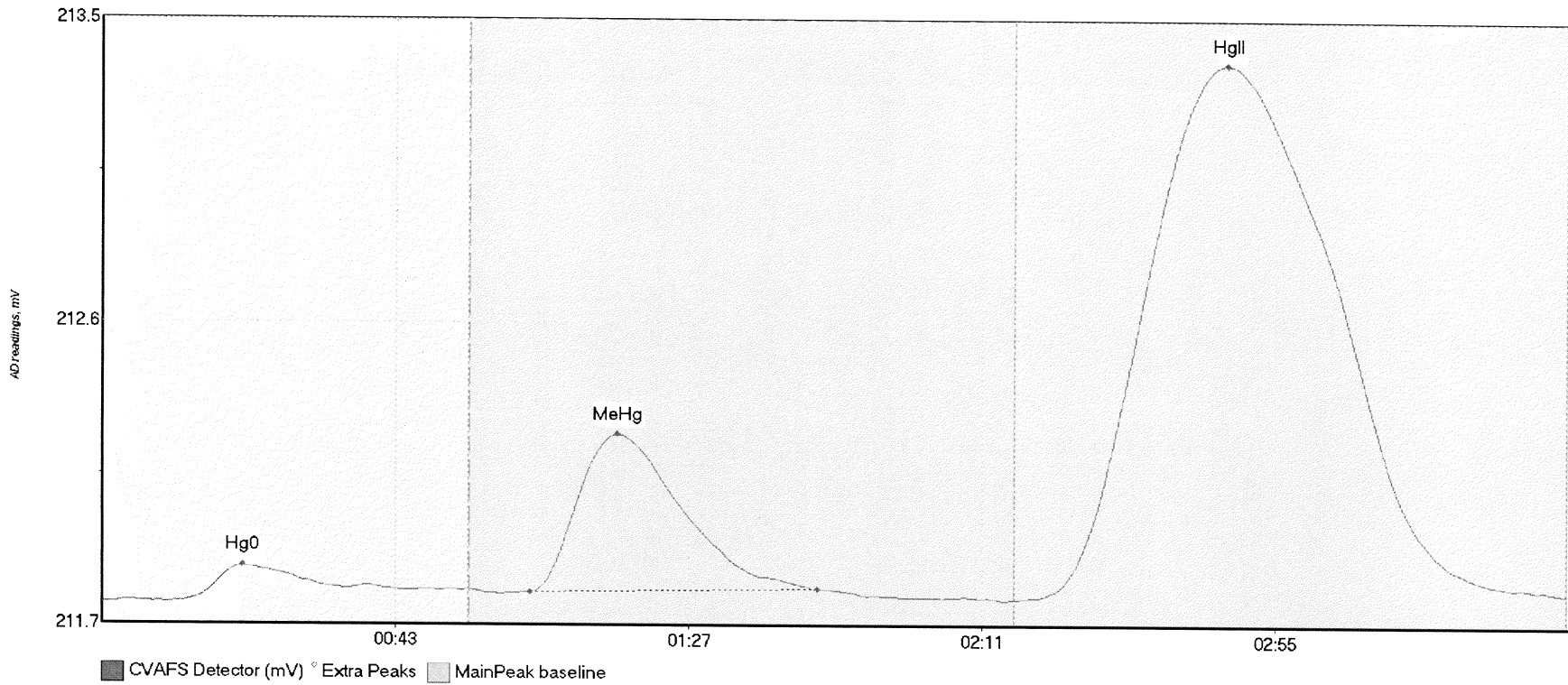
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-03RE1 H	7.367	14.1	37.5	211.81	211.83	21.5	0.071	OK	211.8094	0.00	0.02	
1708240-03RE1 M	81.171	64.0	108.6	211.83	211.83	78.0	0.442	OK	211.8094	0.00	0.02	
1708240-03RE1 H	304.955	139.3	212.5	211.82	211.82	167.8	0.952	OK	211.8094	0.00	0.02	

#64: 1708240-04RE1



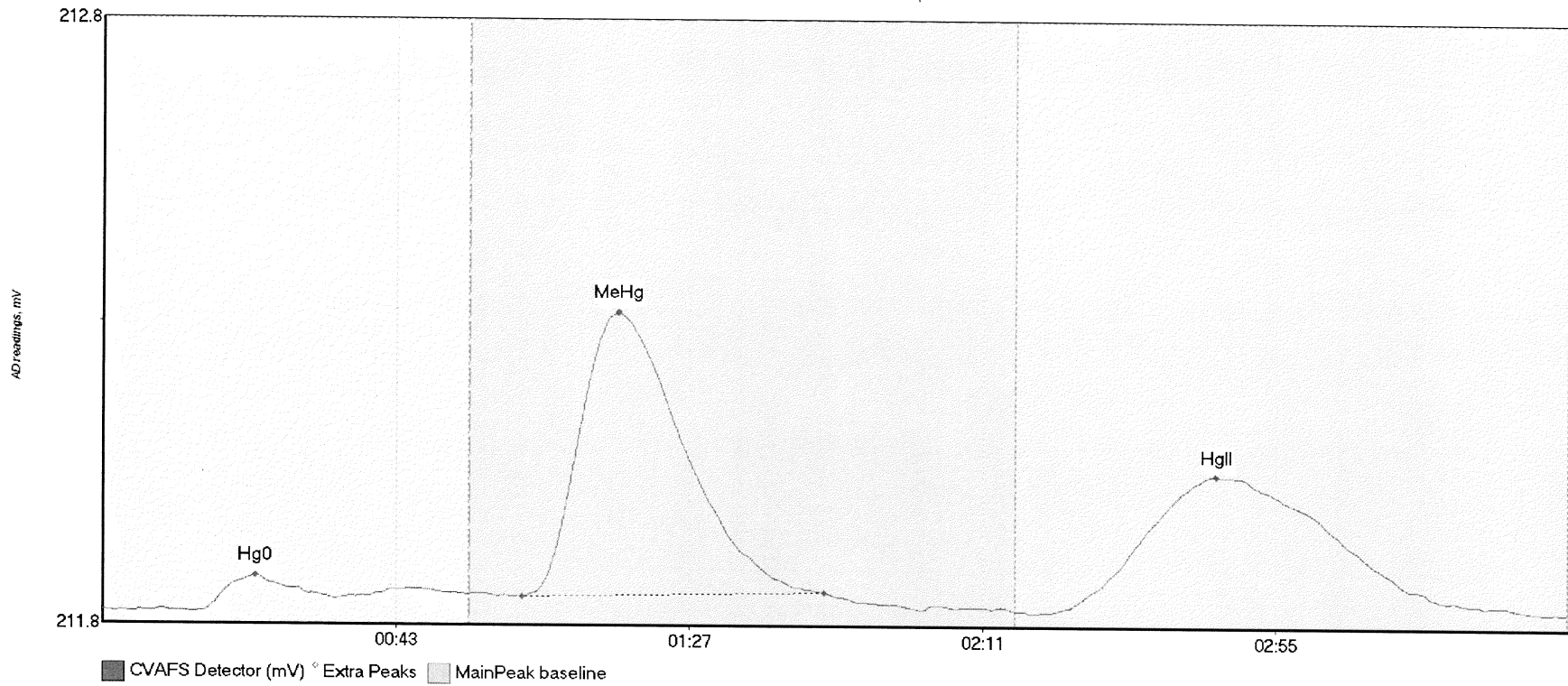
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-04RE1 H	13.011	12.7	52.5	211.81	211.83	22.1	0.096	OK	211.8053	0.00	0.03	
1708240-04RE1 M	110.105	60.1	109.7	211.83	211.84	77.7	0.604	OK	211.8053	0.00	0.03	
1708240-04RE1 H	590.355	140.3	219.8	211.82	211.83	168.9	1.860	CT	211.8053	0.00	0.03	

#65: 1708240-05RE1



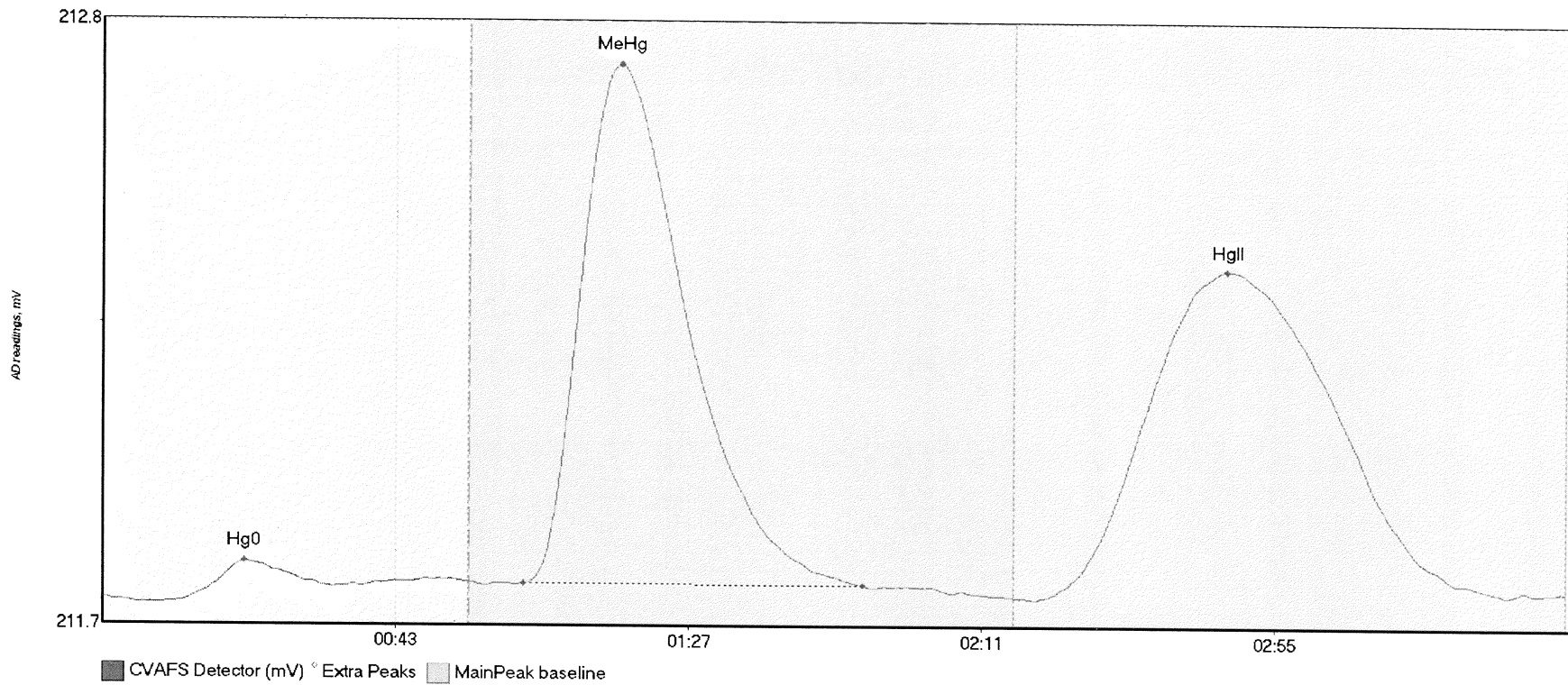
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-05RE1 H	13.588	11.7	45.3	211.80	211.83	21.2	0.105	OK	211.7926	0.00	0.03	
1708240-05RE1 M	84.782	64.2	107.3	211.82	211.83	77.3	0.475	OK	211.7926	0.00	0.03	
1708240-05RE1 H	509.209	139.9	219.4	211.81	211.83	168.7	1.603	OK	211.7926	0.00	0.03	017

#66: 1708241-01RE1



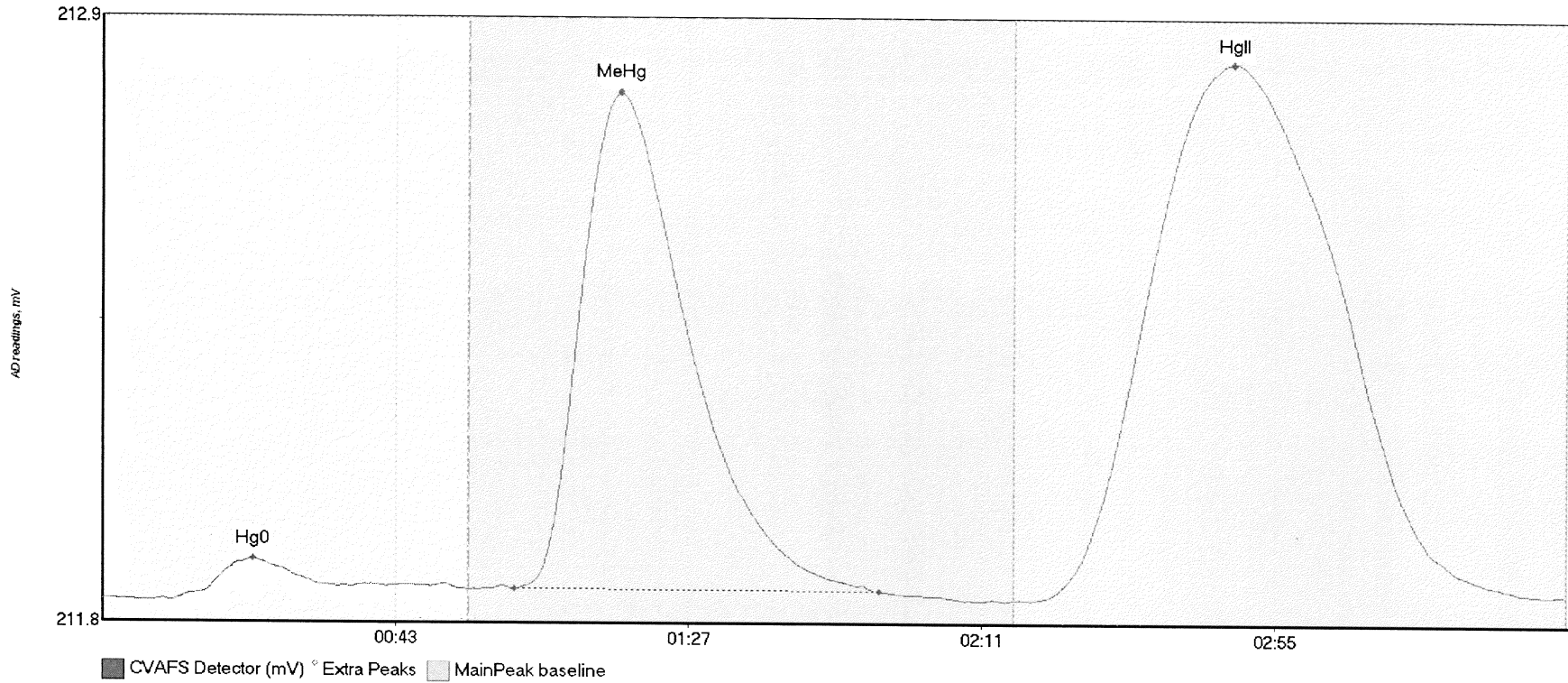
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1708241-01RE1 H	5.028	15.1	34.8	211.79	211.81	22.9	0.058	OK	211.7903	0.00	0.00	
1708241-01RE1 M	83.441	62.9	108.1	211.81	211.82	77.3	0.469	OK	211.7903	0.00	0.00	
1708241-01RE1 H	71.186	142.5	213.2	211.79	211.80	167.0	0.226	OK	211.7903	0.00	0.00	017

#67: 1708241-02RE1



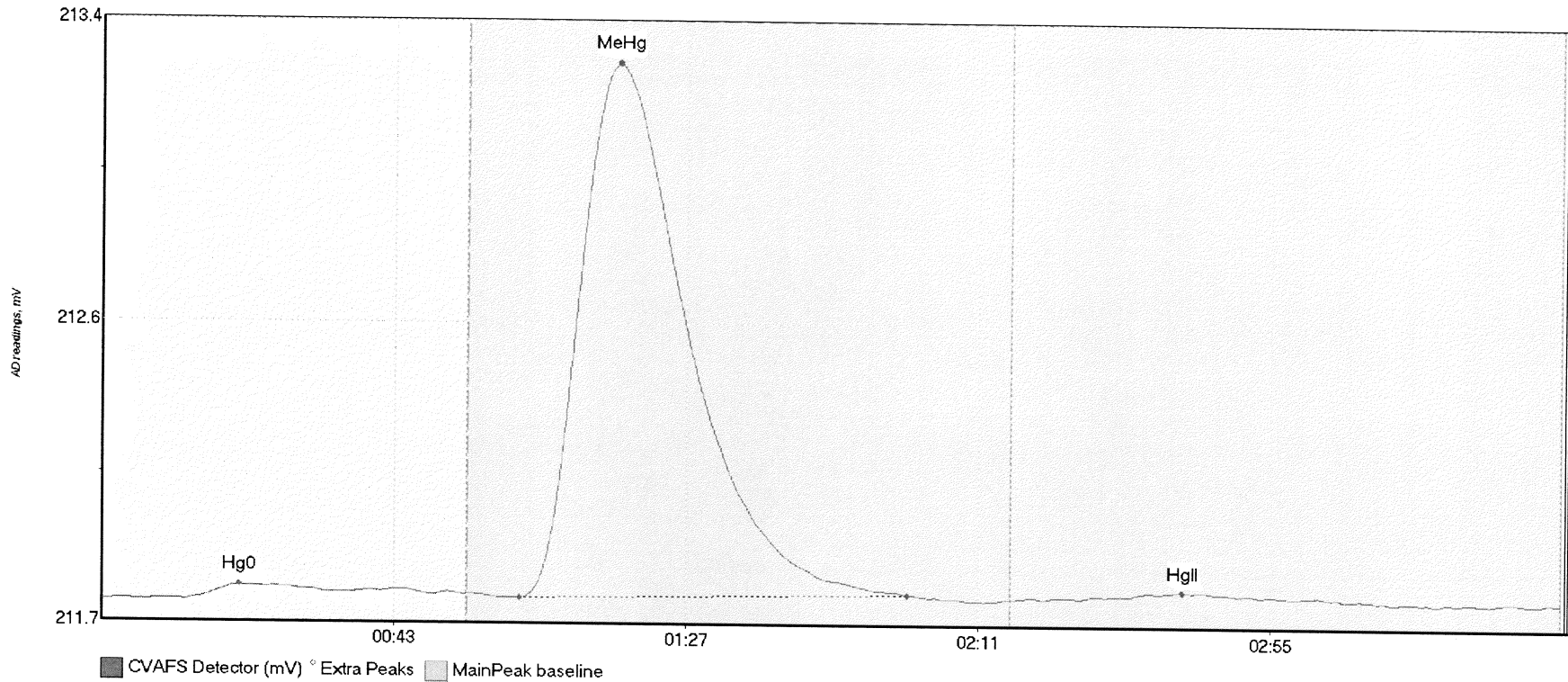
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-02RE1 H	6.152	11.5	34.4	211.79	211.81	21.3	0.068	OK	211.7913	0.00	0.02	
1708241-02RE1 M	165.284	63.2	114.1	211.82	211.82	77.7	0.902	OK	211.7913	0.00	0.02	
1708241-02RE1 H	179.980	141.3	210.7	211.80	211.80	168.7	0.570	OK	211.7913	0.00	0.02	

#68: 1708241-03RE1



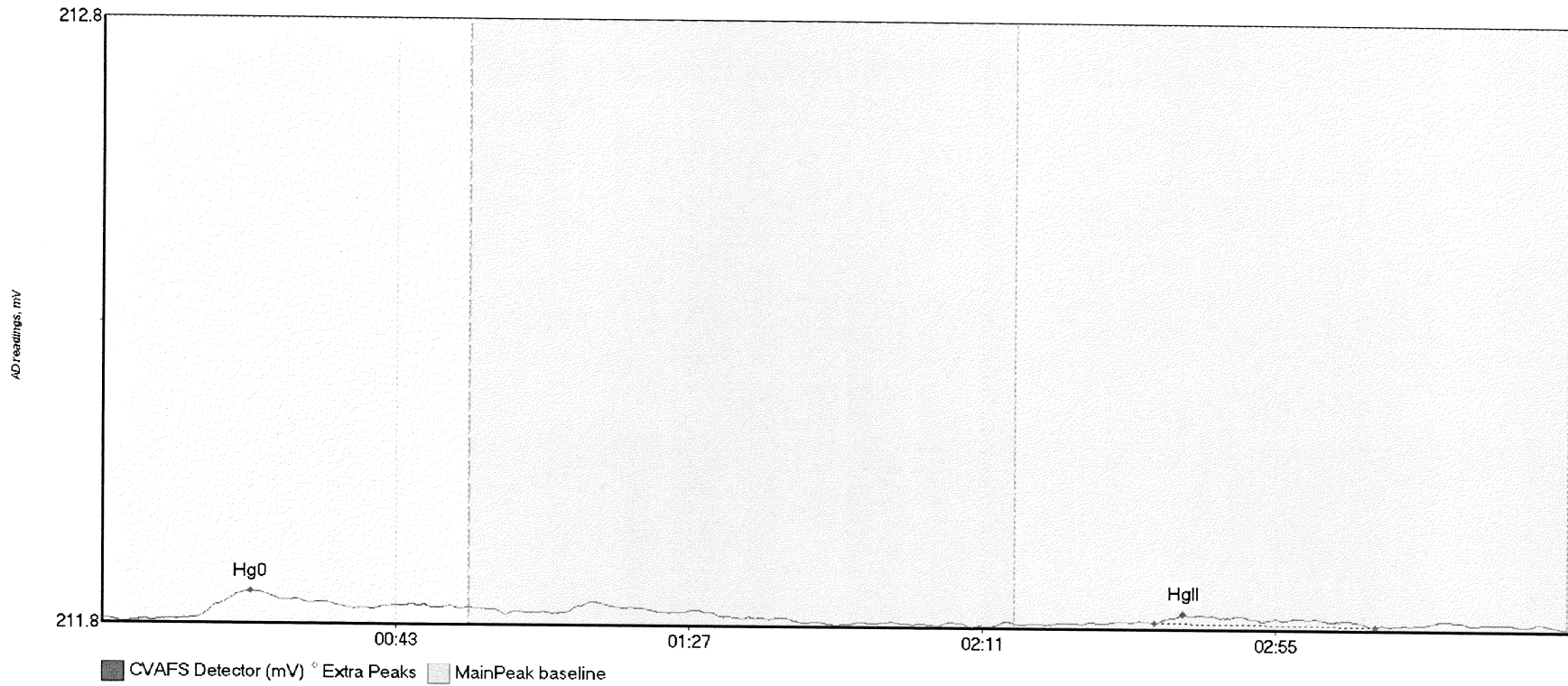
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-03RE1 H	11.305	10.2	55.0	211.80	211.82	22.6	0.077	CT	211.8002	0.00	0.01	
1708241-03RE1 M	169.801	61.8	116.6	211.82	211.82	77.8	0.907	OK	211.8002	0.00	0.01	
1708241-03RE1 H	312.661	140.8	217.0	211.80	211.81	169.7	0.982	OK	211.8002	0.00	0.01	

#69: SEQ-CCV5



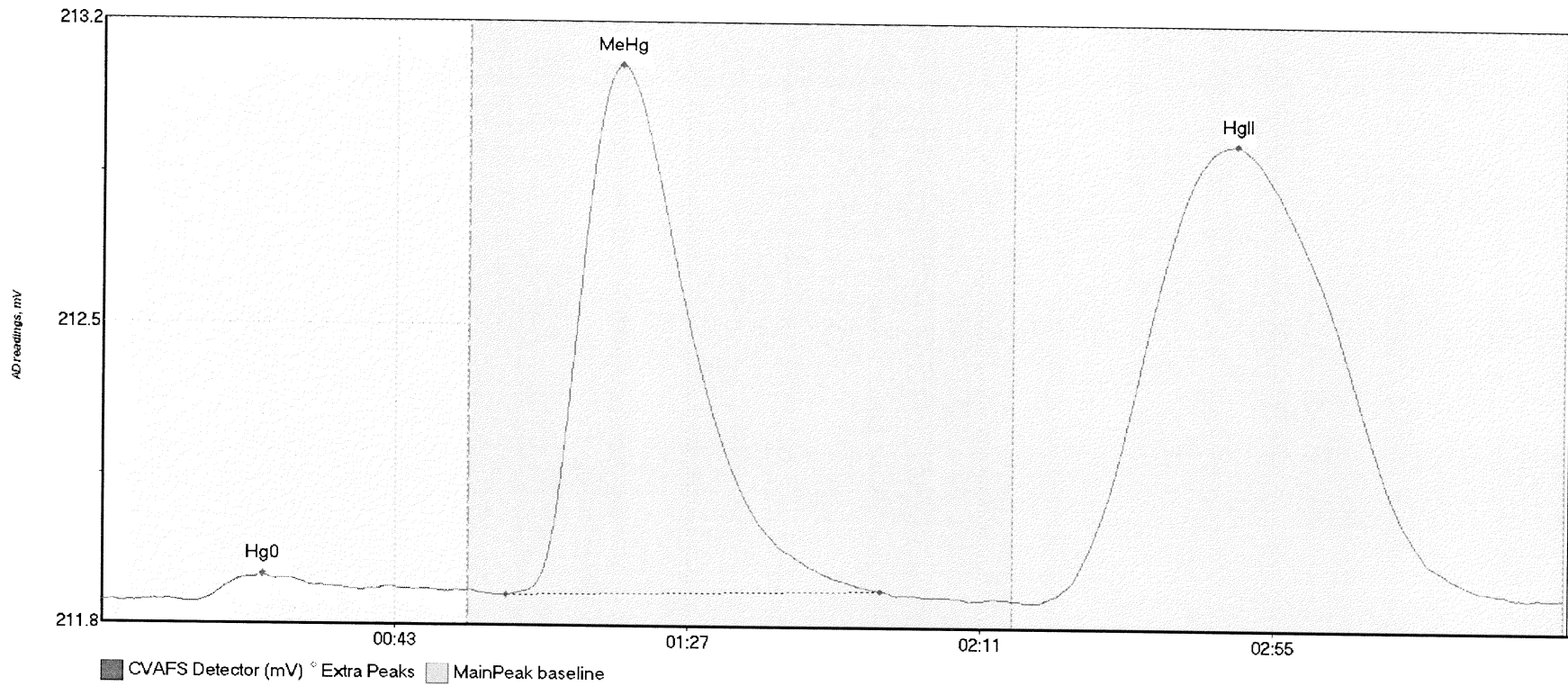
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	6.925	12.7	49.8	211.81	211.82	20.7	0.039	OK	211.8042	0.00	0.01	
SEQ-CCV5 MeHg	269.035	62.8	121.3	211.81	211.83	77.7	1.438	OK	211.8042	0.00	0.01	
SEQ-CCV5 HgII	4.570	147.7	187.3	211.82	211.82	162.8	0.021	OK	211.8042	0.00	0.01	

#70: SEQ-CCB5



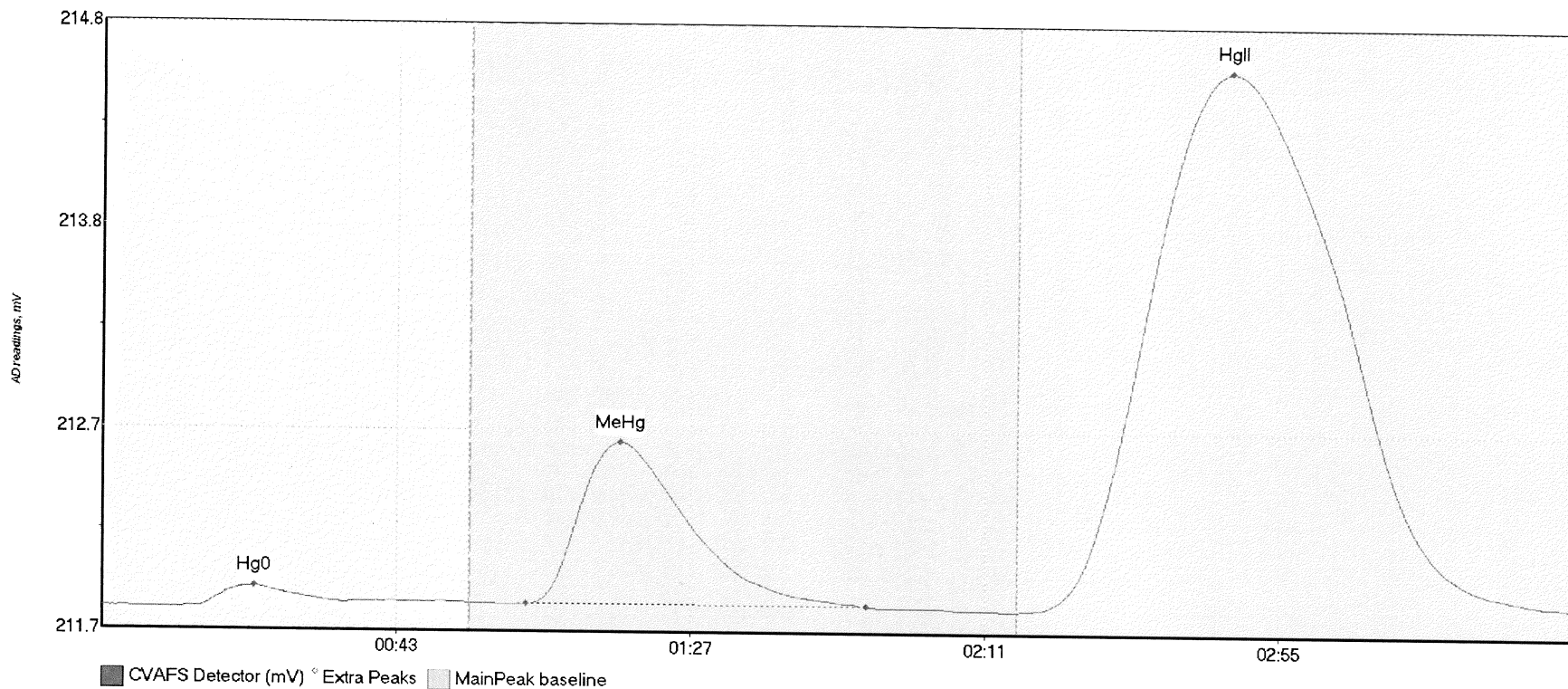
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	4.992	13.9	40.6	211.81	211.83	22.2	0.044	OK	211.8085	0.00	0.00	
SEQ-CCB5 HgII	3.049	157.9	191.0	211.81	211.81	162.2	0.014	OK	211.8085	0.00	0.00	017

#71: 1708241-04RE1



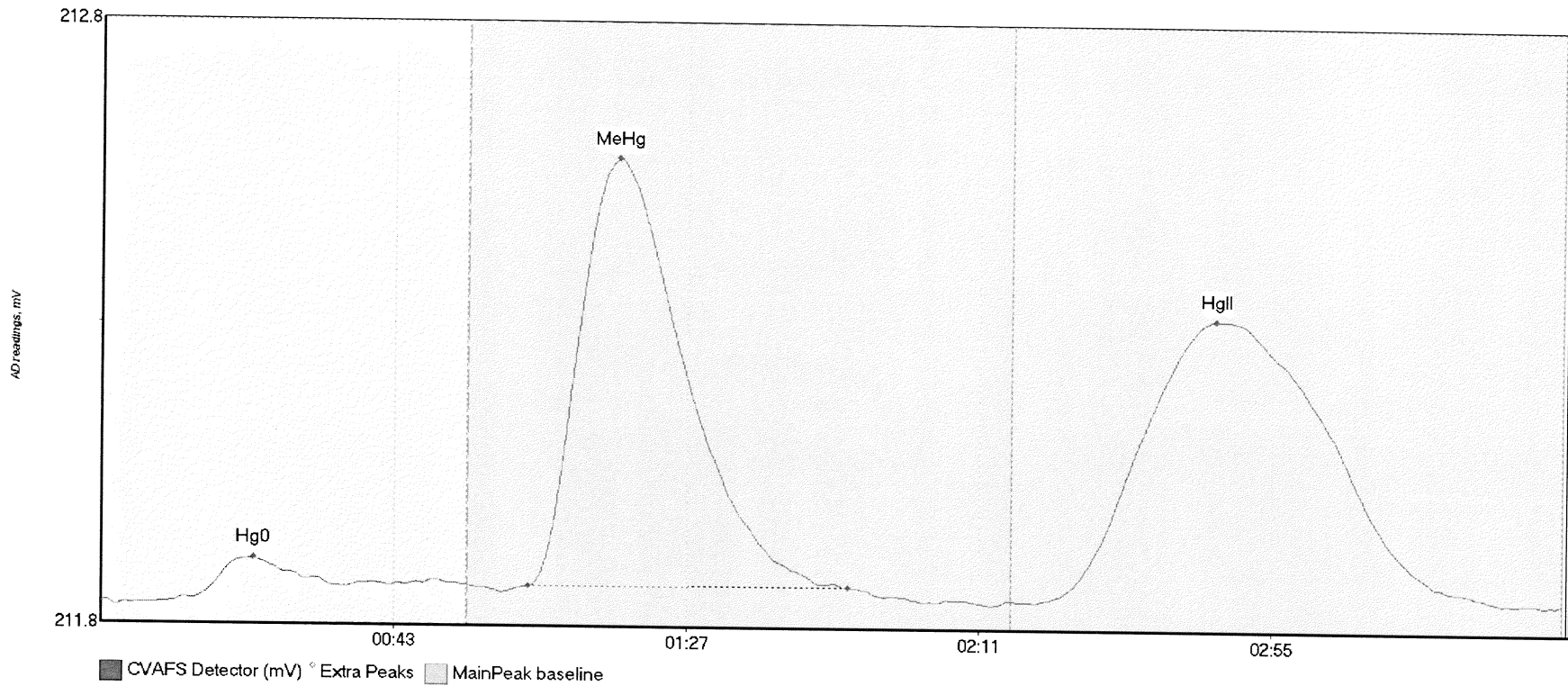
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-04RE1 H	9.556	14.1	51.6	211.81	211.84	24.1	0.066	OK	211.8118	0.00	0.03	
1708241-04RE1 M	240.258	60.7	117.0	211.83	211.84	77.9	1.277	OK	211.8118	0.00	0.03	
1708241-04RE1 H	350.788	140.6	214.7	211.82	211.84	170.3	1.107	OK	211.8118	0.00	0.03	

#72: 1708241-05RE1



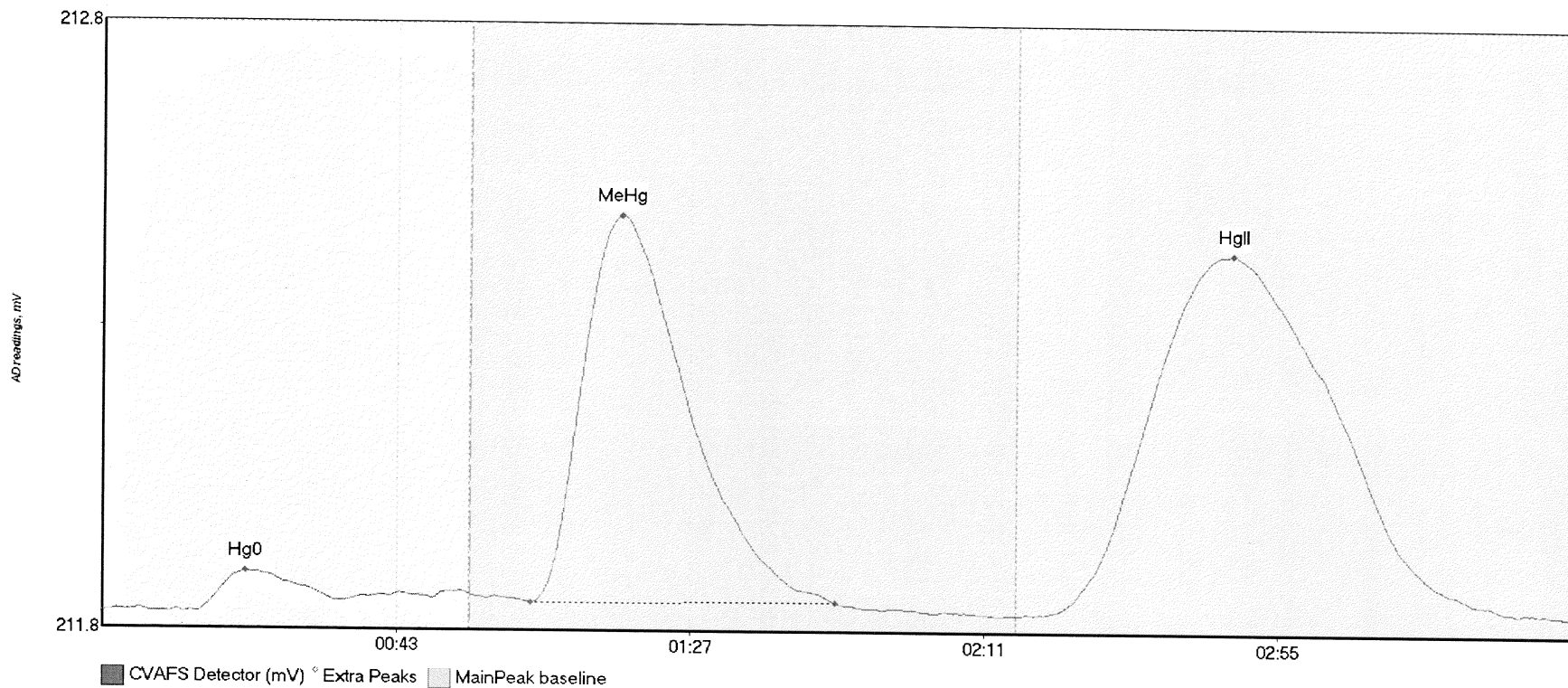
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-05RE1 H	14.061	13.4	55.0	211.82	211.85	22.7	0.107	CT	211.8194	0.00	0.03	
1708241-05RE1 M	153.081	63.5	114.3	211.84	211.84	77.5	0.825	OK	211.8194	0.00	0.03	
1708241-05RE1 H	876.267	139.3	219.4	211.82	211.85	168.8	2.745	OK	211.8194	0.00	0.03	

#73: 1708241-11RE1



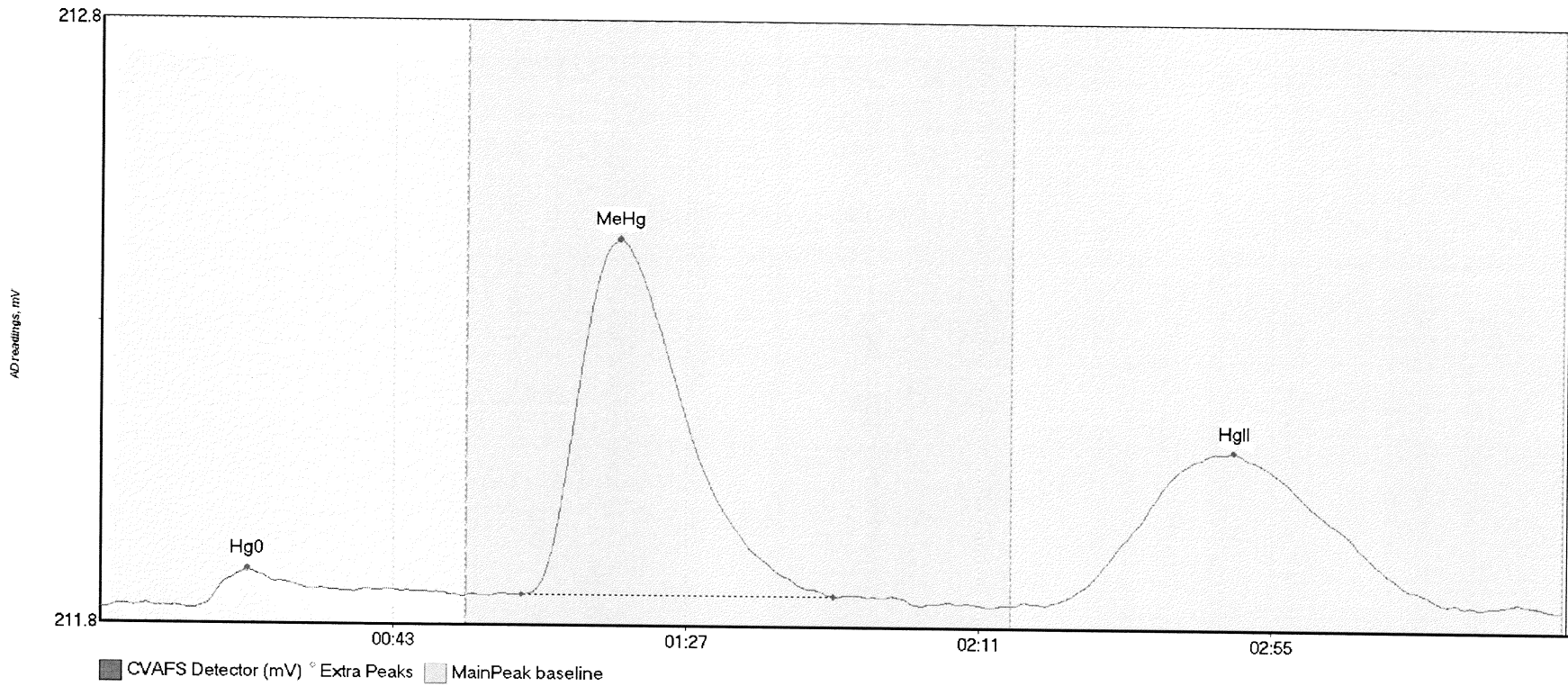
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-11RE1 H	6.878	10.5	36.2	211.82	211.84	22.9	0.072	OK	211.8163	0.00	0.01	
1708241-11RE1 M	128.740	64.1	112.3	211.84	211.85	77.6	0.711	OK	211.8163	0.00	0.01	
1708241-11RE1 H	147.456	142.4	209.9	211.83	211.83	167.4	0.466	OK	211.8163	0.00	0.01	

#74: 1708241-12RE1



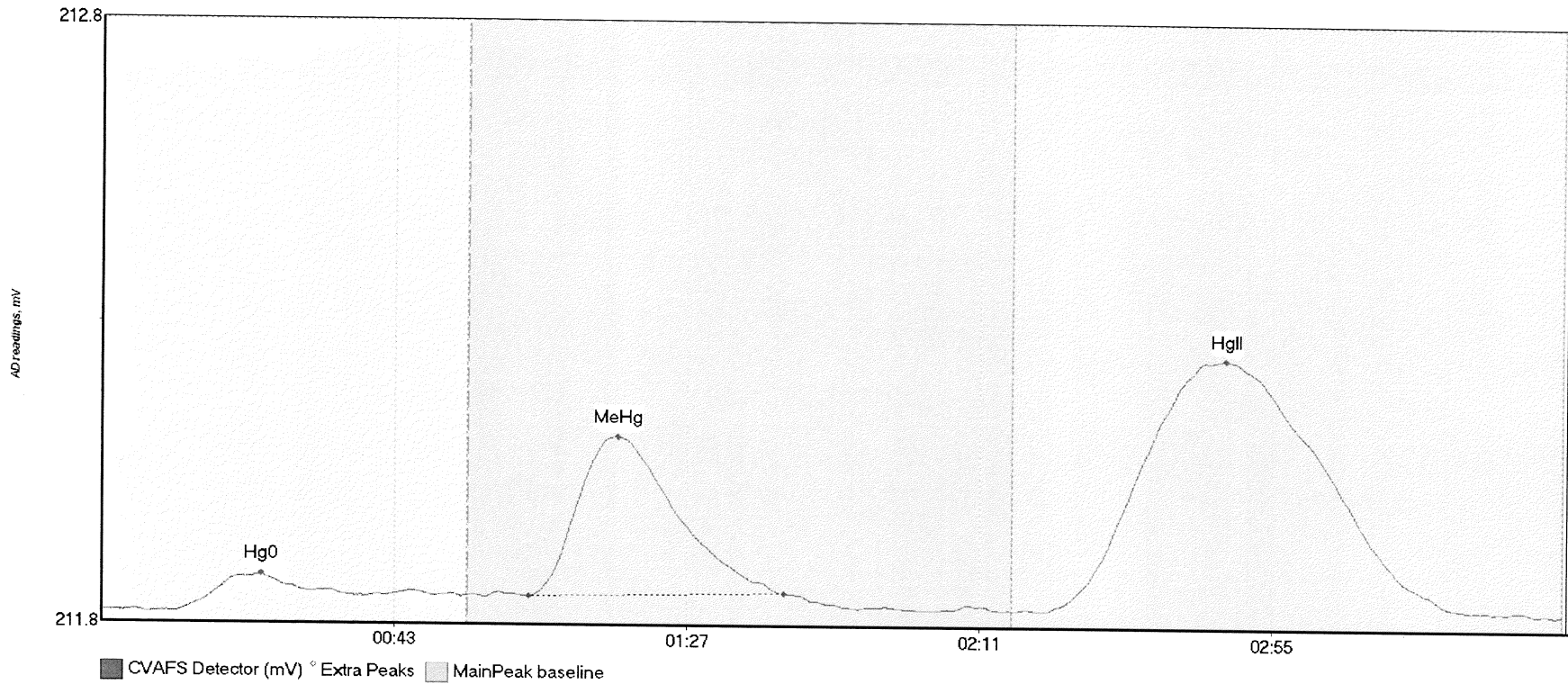
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-12RE1 H	7.011	14.2	35.2	211.81	211.83	21.4	0.067	OK	211.8086	0.00	0.00	
1708241-12RE1 M	115.135	64.1	109.7	211.83	211.83	77.6	0.639	OK	211.8086	0.00	0.00	
1708241-12RE1 H	185.075	141.0	218.0	211.81	211.81	169.2	0.596	OK	211.8086	0.00	0.00	

#75: 1708241-13RE1



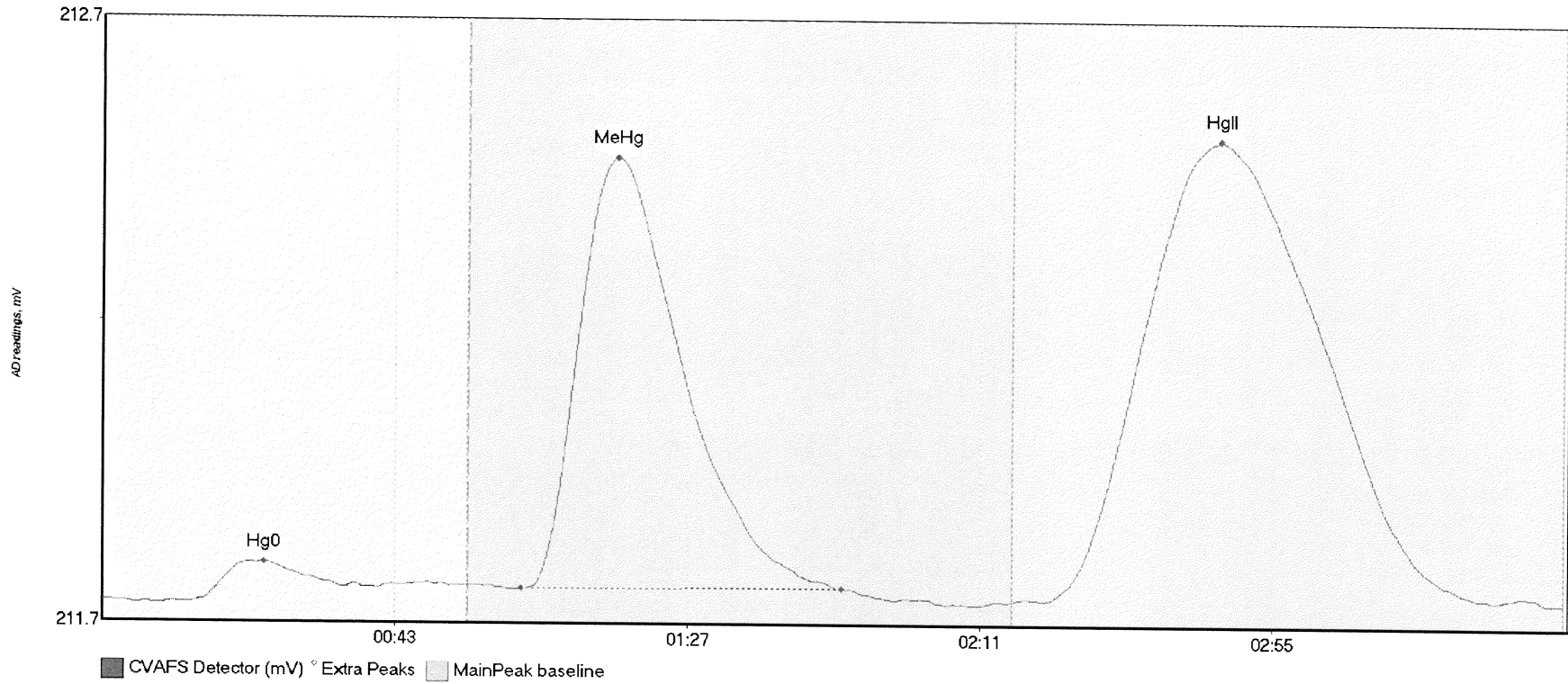
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-13RE1 H	9.657	14.2	54.5	211.80	211.82	22.0	0.063	OK	211.8024	0.00	0.01	
1708241-13RE1 M	106.418	63.3	110.1	211.83	211.83	77.9	0.589	OK	211.8024	0.00	0.01	
1708241-13RE1 H	78.528	142.2	205.2	211.82	211.82	170.3	0.255	OK	211.8024	0.00	0.01	

#76: 1708241-14RE1



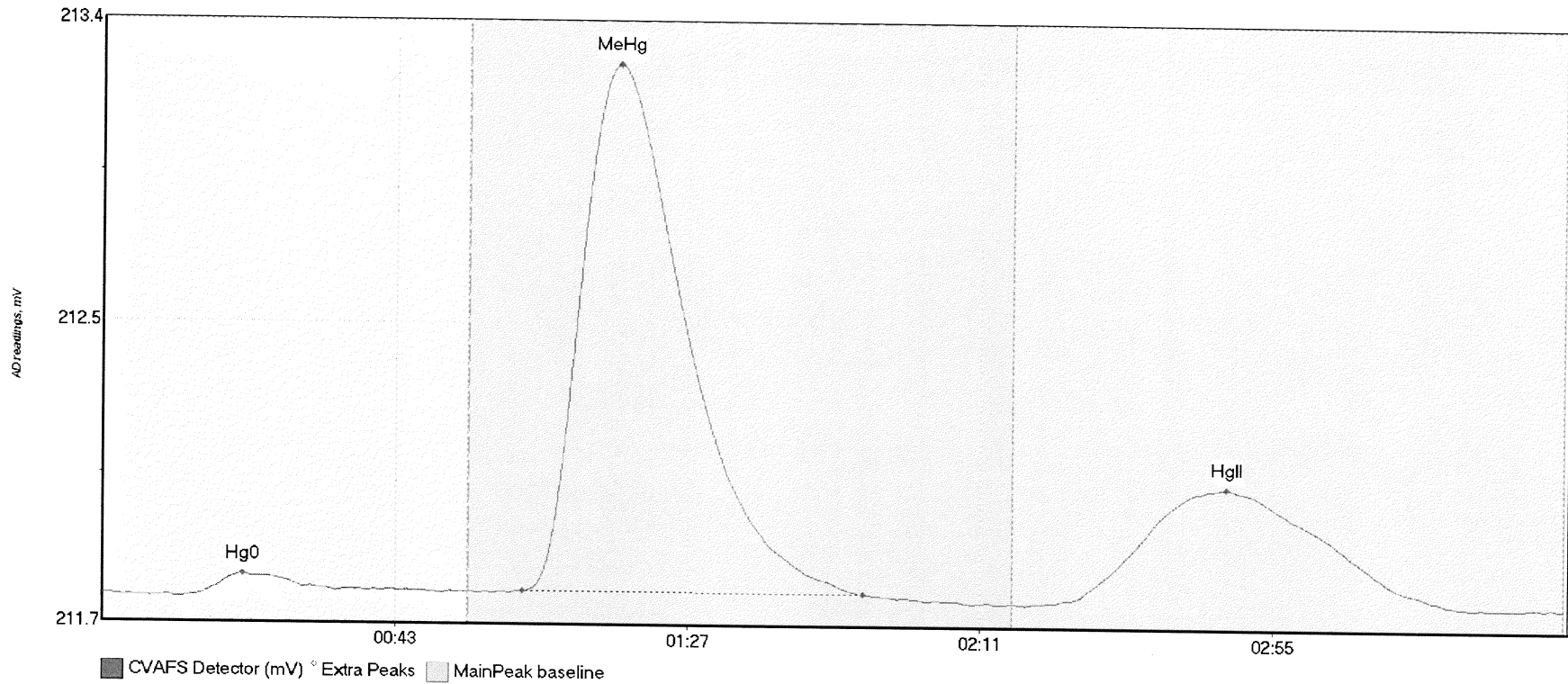
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-14RE1 H	6.756	11.0	40.0	211.79	211.82	24.0	0.061	OK	211.7961	0.00	0.00	
1708241-14RE1 M	44.898	64.2	102.6	211.82	211.83	77.6	0.265	OK	211.7961	0.00	0.00	
1708241-14RE1 H	127.605	141.6	206.1	211.80	211.81	169.0	0.419	OK	211.7961	0.00	0.00	017

#77: 1708241-15RE1



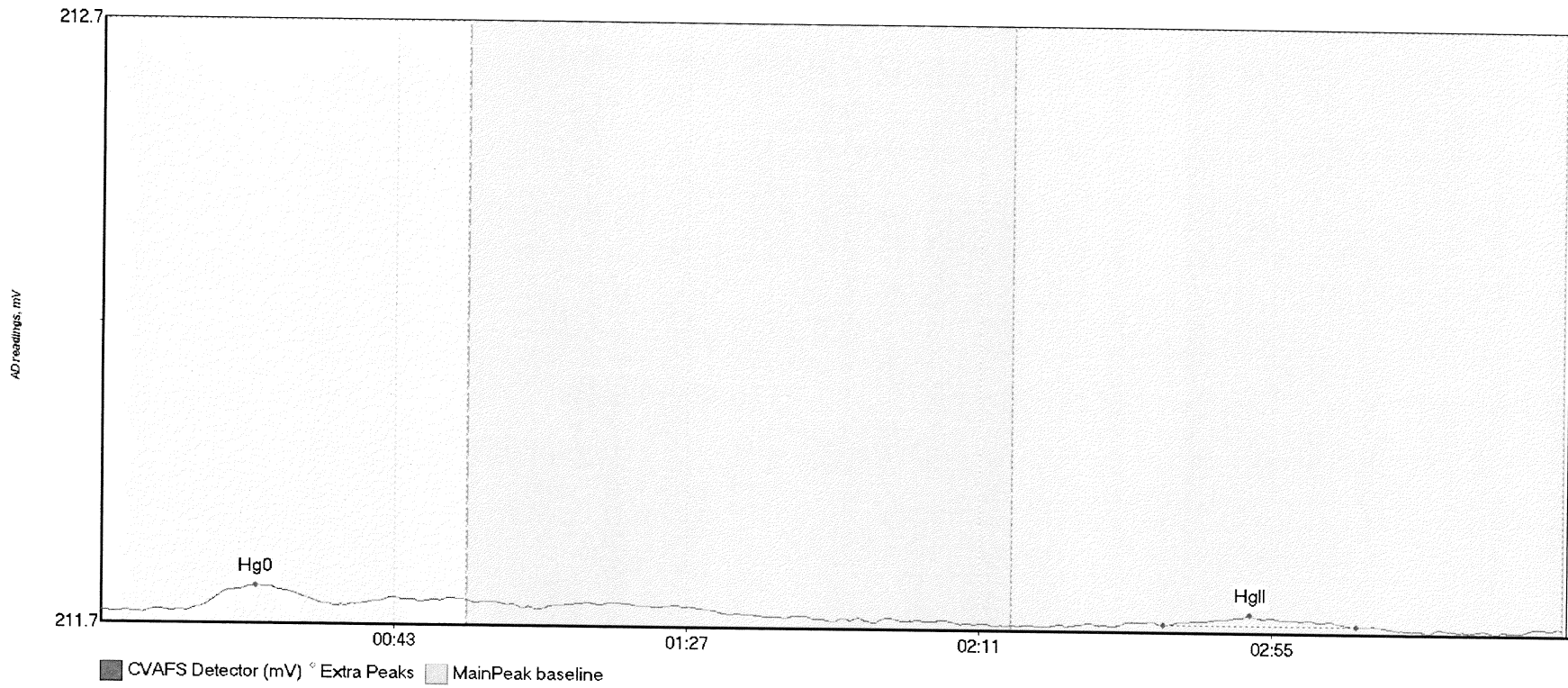
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-15RE1 H	7.168	14.7	41.3	211.79	211.81	24.3	0.063	OK	211.7857	0.00	0.00	
1708241-15RE1 M	127.979	63.0	111.2	211.81	211.81	77.3	0.715	OK	211.7857	0.00	0.00	
1708241-15RE1 H	229.199	142.3	209.2	211.79	211.79	168.0	0.763	OK	211.7857	0.00	0.00	

#78: SEQ-CCV6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	8.707	11.9	51.0	211.77	211.79	21.2	0.063	OK	211.7813	0.00	-0.02	
SEQ-CCV6 MeHg	268.684	63.2	114.4	211.79	211.79	77.6	1.482	OK	211.7813	0.00	-0.02	
SEQ-CCV6 HgII	99.380	142.6	204.3	211.77	211.77	169.1	0.326	OK	211.7813	0.00	-0.02	

#79: SEQ-CCB6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	4.726	12.8	35.1	211.76	211.77	23.3	0.043	OK	211.7552	0.00	-0.01	
SEQ-CCB6 HgII	2.487	159.8	188.7	211.75	211.75	172.8	0.017	OK	211.7552	0.00	-0.01	017

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1708119

PO#

C012505850

September 5, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1708119

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September 5, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 16:57

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-03_17HC001_072717_POL_01_WB	1708119-01	Tissue	27-Jul-17 09:55	03-Aug-17 09:40
ES-03_17HC001_072717_POL_02_WB	1708119-02	Tissue	27-Jul-17 09:55	03-Aug-17 09:40
ES-03_17HC001_072717_POL_03_WB	1708119-03	Tissue	27-Jul-17 09:55	03-Aug-17 09:40
ES-03_17HC001_072717_POL_04_WB	1708119-04	Tissue	27-Jul-17 09:55	03-Aug-17 09:40
ES-03_17HC001_072717_POL_05_WB	1708119-05	Tissue	27-Jul-17 09:55	03-Aug-17 09:40
ES-13_17HC001_072517_POL_01_WB	1708119-06	Tissue	25-Jul-17 16:30	03-Aug-17 09:40
ES-13_17HC001_072517_POL_02_WB	1708119-07	Tissue	25-Jul-17 16:30	03-Aug-17 09:40
ES-13_17HC001_072517_POL_03_WB	1708119-08	Tissue	25-Jul-17 16:30	03-Aug-17 09:40
ES-13_17HC001_072517_POL_04_WB	1708119-09	Tissue	25-Jul-17 16:30	03-Aug-17 09:40
ES-13_17HC001_072517_POL_05_WB	1708119-10	Tissue	25-Jul-17 16:30	03-Aug-17 09:40

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King**Reported:**
05-Sep-17 15:58

REVISED REPORT 9/5/17

Per client's request via email, a revised report to include updated bench sheet with corrected masses was generated.

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 8/3/2017 9:40:00 AM. The samples were received intact, on-ice within two sealed coolers at -49.8 and -48.8 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples were prepped in two batches; F708299 and F708455. Sample 1708119-01 was used as the source QC in batch F708299 and sample 1708119-06 was used as the source QC in batch F708455. These were analyzed in sequences 7H10019 and 7H25009.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Maricris dela Rosa, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
05-Sep-17 15:58

and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

EFGS Work Order: 1708119

Client: Ame c

Date & Time Received: 8/3/17 9:46

Date Labeled: 8/3/17 Labeled By: LM

Project: _____

Received By: CS P

Label Verified By: Ben

of Coolers Received: 1 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y N Temp Blank Used: Y N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>Y</u>	

TID: <u>3150</u>	CF: <u>+0.2 °C</u>	Date/time: <u>8/3/17 9:40</u>	By: <u>CS P</u>
Cooler 1: <u>-50 °C</u>	w/CF: <u>-49.8°C</u>	Cooler 4: <u>°C</u>	w/CF: <u>°C</u>
Cooler 2: <u>-49 °C</u>	w/CF: <u>-48.8°C</u>	Cooler 5: <u>°C</u>	w/CF: <u>°C</u>
Cooler 3: <u>°C</u>	w/CF: <u>°C</u>	Cooler 6: <u>°C</u>	w/CF: <u>°C</u>

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>NA</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>Y</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>NA</u>	

Anomalies/Non-conformances (attach additional pages if needed):

1708119

Environmental Analysis Request/Chain of Custody



Client: Ameo Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101		Matrix		Analyses Requested						For Lab Use Only										
Project Name/#: USDC Penobscot		PN # 3818166052 04A.4AC55		Preservation Codes						SF #:										
Project Manager: Rod Pendleton		P.O. #:								SCR #:										
Sampler: JB/DI		PWSID #:								Preservation Codes										
Phone #:		Quote #:								H = HC T = Thiocytide										
State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								N = HNO ₃ B = NaOH										
										S = H ₂ O ₂ F = H ₂ PO ₄										
										O = Other										
Sample Identification		Collection		Soil <input type="checkbox"/>	Sediment <input type="checkbox"/>	Tissue <input type="checkbox"/>	Potable <input type="checkbox"/>	Ground <input type="checkbox"/>	Surface <input type="checkbox"/>	Water <input type="checkbox"/>	NPDES <input type="checkbox"/>	Other: <input type="checkbox"/>	Total # of Containers	Hg 1631a 2 or F-Freeze	Remarks					
Date	Time	Grab	Composite																	
1	ES-03_17HC001_072717_POL_01_WB	7/27/2017	0955	X						X			1	X	5 grams					
2	ES-03_17HC001_072717_POL_02_WB	7/27/2017	0955	X						X			1	X	5 grams					
3	ES-03_17HC001_072717_POL_03_WB	7/27/2017	0955	X						X			1	X	5 grams					
4	ES-03_17HC001_072717_POL_04_WB	7/27/2017	0955	X						X			1	X	5 grams					
5	ES-03_17HC001_072717_POL_05_WB	7/27/2017	0955	X						X			1	X	5 grams					
6	ES-13_17HC001_072517_POL_01_WB	7/25/2017	1630	X						X			1	X	5 grams					
7	ES-13_17HC001_072517_POL_02_WB	7/25/2017	1630	X						X			1	X	5 grams					
8	ES-13_17HC001_072517_POL_03_WB	7/25/2017	1630	X						X			1	X	5 grams					
9	ES-13_17HC001_072517_POL_04_WB	7/25/2017	1630	X						X			1	X	5 grams					
10	ES-13_17HC001_072517_POL_05_WB	7/25/2017	1630	X						X			1	X	5 grams					
11																				
12																				
13																				
14																				
15																				
Turnaround Time Requested (TAT) (please check):				Standard <input checked="" type="checkbox"/>		Rush <input type="checkbox"/>		Relinquished by: <i>[Signature]</i>		Date: 8/2/2017		Time: 3:30pm		Received by: <i>[Signature]</i>		Date: 8/9/17		Time: 9:40		
(Rush TAT is subject to laboratory approval and surcharge.)								Relinquished by:		Date:		Time:		Received by: <i>cosbin Paul</i>		Date:		Time:		
Notes:								Relinquished by:		Date:		Time:		Received by: <i>FEES</i>		Date:		Time:		
FedEx # 550010000				# of Coolers: 1				Relinquished by:		Date:		Time:		Received by:		Date:		Time:		
Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report				Report and EDD to denise.king@amfocw.com / 979-692-6633				Relinquished by:		Date:		Time:		Received by:		Date:		Time:		
Data Package Options (please check if required)				High <input type="checkbox"/>		Standard <input checked="" type="checkbox"/>		Relinquished by Commercial Carrier:		Date:		Time:		Received by:		Date:		Time:		
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				If yes, format:				UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other <input type="checkbox"/>		Date:		Time:		Received by:		Date:		Time:		
										Temperature upon receipt: _____ °C										

JB
-49.8°C
FedEx
9/10

8103 4444 8602
8103 4444 8131



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 16:57

ES-03_17HC001_072717_POL_01_WB
1708119-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	35.9	0.432	3.86	ng/g	100	F708299	04-Aug-17	7H10019	10-Aug-17	EPA 1631B	
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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 16:57

ES-03_17HC001_072717_POL_02_WB
1708119-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	29.7	0.376	3.36	ng/g	100	F708299	04-Aug-17	7H10019	10-Aug-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 16:57

ES-03_17HC001_072717_POL_03_WB
1708119-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	48.0	0.432	3.86	ng/g	100	F708299	04-Aug-17	7H10019	10-Aug-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 16:57

ES-03_17HC001_072717_POL_04_WB
1708119-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	27.8	0.388	3.46	ng/g	100	F708299	04-Aug-17	7H10019	10-Aug-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 16:57

ES-03_17HC001_072717_POL_05_WB
1708119-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	22.4	0.377	3.37	ng/g	100	F708299	04-Aug-17	7H10019	10-Aug-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 16:57

ES-13_17HC001_072517_POL_01_WB
1708119-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	46.1	0.390	3.48	ng/g	100	F708299	04-Aug-17	7H10019	10-Aug-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 16:57

ES-13_17HC001_072517_POL_02_WB
1708119-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	28.0	0.360	3.21	ng/g	100	F708299	04-Aug-17	7H10019	10-Aug-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 16:57

ES-13_17HC001_072517_POL_03_WB
1708119-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	19.5	0.408	3.64	ng/g	100	F708299	04-Aug-17	7H10019	10-Aug-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 16:57

ES-13_17HC001_072517_POL_04_WB
1708119-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	13.0	0.435	3.89	ng/g	100	F708299	04-Aug-17	7H10019	10-Aug-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 16:57

ES-13_17HC001_072517_POL_05_WB
1708119-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	13.6	0.419	3.75	ng/g	100	F708299	04-Aug-17	7H10019	10-Aug-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 16:57

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7H10019 - F708299											
Cal Standard (7H10019-CAL1)					Prepared: 09-Aug-17 Analyzed: 10-Aug-17						
Mercury	0.554	-		ng/L	0.50100		111				
Cal Standard (7H10019-CAL2)					Prepared: 09-Aug-17 Analyzed: 10-Aug-17						
Mercury	1.002	-		ng/L	1.0020		100				
Cal Standard (7H10019-CAL3)					Prepared: 09-Aug-17 Analyzed: 10-Aug-17						
Mercury	4.836	-		ng/L	5.0100		96.5				
Cal Standard (7H10019-CAL4)					Prepared: 09-Aug-17 Analyzed: 10-Aug-17						
Mercury	19.30	-		ng/L	20.040		96.3				
Cal Standard (7H10019-CAL5)					Prepared: 09-Aug-17 Analyzed: 10-Aug-17						
Mercury	38.32	-		ng/L	40.080		95.6				
Calibration Blank (7H10019-CCB1)					Prepared: 09-Aug-17 Analyzed: 10-Aug-17						
Mercury	0.033	-		ng/L							
Calibration Blank (7H10019-CCB2)					Prepared: 09-Aug-17 Analyzed: 10-Aug-17						
Mercury	0.028	-		ng/L							
Calibration Blank (7H10019-CCB3)					Prepared: 09-Aug-17 Analyzed: 10-Aug-17						
Mercury	0.015	-		ng/L							
Calibration Blank (7H10019-CCB4)					Prepared: 09-Aug-17 Analyzed: 10-Aug-17						
Mercury	0.016	-		ng/L							
Calibration Blank (7H10019-CCB5)					Prepared: 09-Aug-17 Analyzed: 10-Aug-17						
Mercury	-0.017	-		ng/L							U

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7H10019 - F708299											
Calibration Blank (7H10019-CCB6) Prepared: 09-Aug-17 Analyzed: 10-Aug-17											
Mercury	-0.008	-		ng/L							U
Calibration Blank (7H10019-CCB7) Prepared: 09-Aug-17 Analyzed: 10-Aug-17											
Mercury	0.029	-		ng/L							
Calibration Check (7H10019-CCV1) Prepared: 09-Aug-17 Analyzed: 10-Aug-17											
Mercury	4.872	-		ng/L	5.0000		97.4	77-123			
Calibration Check (7H10019-CCV2) Prepared: 09-Aug-17 Analyzed: 10-Aug-17											
Mercury	4.855	-		ng/L	5.0000		97.1	77-123			
Calibration Check (7H10019-CCV3) Prepared: 09-Aug-17 Analyzed: 10-Aug-17											
Mercury	4.949	-		ng/L	5.0000		99.0	77-123			
Calibration Check (7H10019-CCV4) Prepared: 09-Aug-17 Analyzed: 10-Aug-17											
Mercury	4.853	-		ng/L	5.0000		97.1	77-123			
Calibration Check (7H10019-CCV5) Prepared: 09-Aug-17 Analyzed: 10-Aug-17											
Mercury	5.000	-		ng/L	5.0000		100	77-123			
Calibration Check (7H10019-CCV6) Prepared: 09-Aug-17 Analyzed: 10-Aug-17											
Mercury	4.949	-		ng/L	5.0000		99.0	77-123			
Calibration Check (7H10019-CCV7) Prepared: 09-Aug-17 Analyzed: 10-Aug-17											
Mercury	5.038	-		ng/L	5.0000		101	77-123			
Instrument Blank (7H10019-IBL1) Prepared: 09-Aug-17 Analyzed: 10-Aug-17											
Mercury	ND	0.004	0.040	ng/L							U



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: WO-04A-050 Project Manager: Denise King	Reported: 28-Aug-17 16:57
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7H10019 - F708299											
Instrument Blank (7H10019-IBL2) Prepared: 09-Aug-17 Analyzed: 10-Aug-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7H10019-IBL3) Prepared: 09-Aug-17 Analyzed: 10-Aug-17											
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7H10019-ICV1) Prepared: 09-Aug-17 Analyzed: 10-Aug-17											
Mercury	4.838	-		ng/L	5.0000		96.8	79-121			
Batch 7H25009 - F708455											
Cal Standard (7H25009-CAL1) Prepared & Analyzed: 24-Aug-17											
Mercury	0.527	-		ng/L	0.50100		105				
Cal Standard (7H25009-CAL2) Prepared & Analyzed: 24-Aug-17											
Mercury	1.007	-		ng/L	1.0020		101				
Cal Standard (7H25009-CAL3) Prepared & Analyzed: 24-Aug-17											
Mercury	4.855	-		ng/L	5.0100		96.9				
Cal Standard (7H25009-CAL4) Prepared & Analyzed: 24-Aug-17											
Mercury	19.79	-		ng/L	20.040		98.8				
Cal Standard (7H25009-CAL5) Prepared & Analyzed: 24-Aug-17											
Mercury	39.13	-		ng/L	40.080		97.6				
Calibration Blank (7H25009-CCB1) Prepared & Analyzed: 24-Aug-17											
Mercury	0.071	-		ng/L							



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7H25009 - F708455											
Calibration Blank (7H25009-CCB2)											
Prepared & Analyzed: 24-Aug-17											
Mercury	0.109	-		ng/L							
Calibration Blank (7H25009-CCB3)											
Prepared & Analyzed: 24-Aug-17											
Mercury	0.180	-		ng/L							
Calibration Blank (7H25009-CCB4)											
Prepared & Analyzed: 24-Aug-17											
Mercury	0.065	-		ng/L							
Calibration Check (7H25009-CCV1)											
Prepared & Analyzed: 24-Aug-17											
Mercury	4.914	-		ng/L	5.0000		98.3	77-123			
Calibration Check (7H25009-CCV2)											
Prepared & Analyzed: 24-Aug-17											
Mercury	5.137	-		ng/L	5.0000		103	77-123			
Calibration Check (7H25009-CCV3)											
Prepared & Analyzed: 24-Aug-17											
Mercury	5.132	-		ng/L	5.0000		103	77-123			
Calibration Check (7H25009-CCV4)											
Prepared & Analyzed: 24-Aug-17											
Mercury	4.991	-		ng/L	5.0000		99.8	77-123			
Instrument Blank (7H25009-IBL1)											
Prepared & Analyzed: 24-Aug-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7H25009-IBL2)											
Prepared & Analyzed: 24-Aug-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7H25009-IBL3)											
Prepared & Analyzed: 24-Aug-17											
Mercury	ND	0.004	0.040	ng/L							U



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: WO-04A-050 Project Manager: Denise King	Reported: 28-Aug-17 16:57
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7H25009 - F708455

Initial Cal Check (7H25009-ICV1)					Prepared & Analyzed: 24-Aug-17						
Mercury	5.240	-		ng/L	5.0000		105	79-121			

Batch F708299 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F708299-BLK1)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	ND	0.090	0.800	ng/g							U

Blank (F708299-BLK2)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	ND	0.090	0.800	ng/g							U

Blank (F708299-BLK3)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	ND	0.090	0.800	ng/g							U

Blank (F708299-BLK4)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	ND	0.085	0.762	ng/g							F-03, U

Blank (F708299-BLK5)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	ND	0.080	0.716	ng/g							F-03, U

LCS (F708299-BS1)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	7.954	0.090	0.800	ng/g	8.0160		99.2	75-125			

LCS (F708299-BS2)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	337.6	3.43	30.6	ng/g	382.50		88.3	75-125			

LCS Dup (F708299-BSD1)					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Mercury	7.976	0.090	0.800	ng/g	8.0160		99.5	75-125	0.266	24	



AMEC Foster Wheeler
271 Mill Road
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Reported:
28-Aug-17 16:57

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F708299 - EFGS-011 Nitric/Sulfuric Hg Digestion

Duplicate (F708299-DUP1)		Source: 1708119-01		Prepared: 04-Aug-17 Analyzed: 10-Aug-17							
Mercury	35.81	0.395	3.53	ng/g		34.70			3.17	24	
Matrix Spike (F708299-MS1)		Source: 1708119-01		Prepared: 04-Aug-17 Analyzed: 10-Aug-17							
Mercury	404.3	1.73	15.4	ng/g	385.95	34.70	95.8	71-125			
Matrix Spike Dup (F708299-MSD1)		Source: 1708119-01		Prepared: 04-Aug-17 Analyzed: 10-Aug-17							
Mercury	407.2	1.79	15.9	ng/g	398.72	34.70	93.4	71-125	2.46	24	

Batch F708455 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F708455-BLK1)				Prepared: 16-Aug-17 Analyzed: 24-Aug-17							
Mercury	0.140	0.090	0.800	ng/g							J
Blank (F708455-BLK2)				Prepared: 16-Aug-17 Analyzed: 24-Aug-17							
Mercury	0.099	0.090	0.800	ng/g							J
Blank (F708455-BLK3)				Prepared: 16-Aug-17 Analyzed: 24-Aug-17							
Mercury	0.151	0.090	0.800	ng/g							J
Blank (F708455-BLK4)				Prepared: 16-Aug-17 Analyzed: 24-Aug-17							
Mercury	ND	0.083	0.737	ng/g							U
Blank (F708455-BLK5)				Prepared: 16-Aug-17 Analyzed: 24-Aug-17							
Mercury	ND	0.080	0.713	ng/g							U
LCS (F708455-BS1)				Prepared: 16-Aug-17 Analyzed: 24-Aug-17							
Mercury	8.183	0.090	0.800	ng/g	8.0160		102	75-125			

Eurofins Frontier Global Sciences, Inc.



The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: WO-04A-050 Project Manager: Denise King	Reported: 28-Aug-17 16:57
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F708455 - EFGS-011 Nitric/Sulfuric Hg Digestion

LCS (F708455-BS2)					Prepared: 16-Aug-17 Analyzed: 24-Aug-17						
Mercury	349.8	3.47	31.0	ng/g	382.50		91.5	75-125			
LCS Dup (F708455-BSD1)					Prepared: 16-Aug-17 Analyzed: 24-Aug-17						
Mercury	7.567	0.090	0.800	ng/g	8.0160		94.4	75-125	7.83	24	
Duplicate (F708455-DUP1)					Source: 1708119-06RE1 Prepared: 16-Aug-17 Analyzed: 24-Aug-17						
Mercury	50.63	0.394	3.52	ng/g		43.92			14.2	24	
Matrix Spike (F708455-MS1)					Source: 1708119-06RE1 Prepared: 16-Aug-17 Analyzed: 24-Aug-17						
Mercury	421.5	1.79	16.0	ng/g	399.52	43.92	94.5	71-125			
Matrix Spike (F708455-MS2)					Source: 1708240-10 Prepared: 16-Aug-17 Analyzed: 24-Aug-17						
Mercury	393.0	1.64	14.6	ng/g	364.96	42.03	96.2	71-125			
Matrix Spike (F708455-MS3)					Source: 1708240-15 Prepared: 16-Aug-17 Analyzed: 24-Aug-17						
Mercury	394.0	1.72	15.4	ng/g	384.32	24.96	96.0	71-125			
Matrix Spike Dup (F708455-MSD1)					Source: 1708119-06RE1 Prepared: 16-Aug-17 Analyzed: 24-Aug-17						
Mercury	380.7	1.59	14.2	ng/g	354.74	43.92	94.9	71-125	0.446	24	
Matrix Spike Dup (F708455-MSD2)					Source: 1708240-10 Prepared: 16-Aug-17 Analyzed: 24-Aug-17						
Mercury	407.3	1.67	14.9	ng/g	372.02	42.03	98.2	71-125	2.09	24	
Matrix Spike Dup (F708455-MSD3)					Source: 1708240-15 Prepared: 16-Aug-17 Analyzed: 24-Aug-17						
Mercury	385.5	1.70	15.2	ng/g	379.22	24.96	95.1	71-125	0.985	24	

Eurofins Frontier Global Sciences, Inc.



The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
28-Aug-17 16:57

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference





Frontier Global Sciences

THg26003-170809-1

Analysis Datasheet for Total Mercury

Date of Analysis: August 10, 2017

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7H10017, 7H10018, 7H10019

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	51.44 units	102.88	47.26 units	94.51	110.8 %Rec
SEQ-CAL2	1	1.00 ng/L	89.63 units	89.63	85.45 units	85.45	100.2 %Rec
SEQ-CAL3	1	5.00 ng/L	416.65 units	83.33	412.47 units	82.49	96.7 %Rec
SEQ-CAL4	1	20.00 ng/L	1649.82 units	82.49	1645.64 units	82.28	96.5 %Rec
SEQ-CAL5	1	40.00 ng/L	3272.20 units	81.81	3268.02 units	81.70	95.8 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF Corr. St Dev RF Corr. RSD CF Uncorr. Mean RF
 85.29 +/- 5.36 6.3% RSD 88.03

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-TBL	3	4.18 units	±0.33	0.05 ng/L	±0.00

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	2	0.370 ng/L	±0.140
BLK	2	3	2.666 ng/L	±3.307
BLK	3	3	0.602 ng/L	±0.108
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: R 8/12/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	CAL	SEQ-IBL1	1	8/10/2017 8:07:21	72816-1.RAW	8:07:21 AM	4.36			0.2	0.002	0.002	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	8/10/2017 8:11:29	72817-1.RAW	8:11:29 AM	3.80			-0.4	-0.004	-0.004	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	8/10/2017 8:15:38	72818-1.RAW	8:15:38 AM	4.39			0.2	0.002	0.002	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	8/10/2017 8:19:46	72819-1.RAW	8:19:46 AM	51.44			47.3	0.554	0.554	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	8/10/2017 8:23:55	72820-1.RAW	8:23:55 AM	89.63			85.4	1.002	1.002	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	8/10/2017 8:28:03	72821-1.RAW	8:28:03 AM	416.65			412.5	4.836	4.836	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	8/10/2017 8:32:11	72822-1.RAW	8:32:11 AM	1649.82			1645.6	19.295	19.295	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	8/10/2017 8:36:20	72823-1.RAW	8:36:20 AM	3272.20			3268.0	38.318	38.318	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	8/10/2017 8:40:28	72824-1.RAW	8:40:28 AM	416.79			412.6	4.838	4.838	ng/L	
Hg2600-3	BC	SAM	WS		8/10/2017 8:53:54	72825-1.RAW	8:53:54 AM	5.55			1.4	Error	#VALUE!	ng/L	
Hg2600-3	BC	BLK	F707533-BLK1	10	8/10/2017 8:58:02	72826-1.RAW	8:58:02 AM	6.49	1		2.3	0.027	0.270	ng/L	
Hg2600-3	BC	BLK	F707533-BLK2	10	8/10/2017 9:02:10	72827-1.RAW	9:02:10 AM	8.18	1		4.0	0.047	0.469	ng/L	
Hg2600-3	BC	SAM	F707533-BS1	400	8/10/2017 9:06:19	72828-1.RAW	9:06:19 AM	50.11	1		45.9	0.538	215.028	ng/L	
Hg2600-3	BC	SAM	F707533-BSD1	400	8/10/2017 9:10:27	72829-1.RAW	9:10:27 AM	44.04	1		39.9	0.466	186.560	ng/L	
Hg2600-3	BC	SAM	F707533-BS2	100	8/10/2017 9:14:36	72830-1.RAW	9:14:36 AM	181.80	1		177.6	2.079	207.888	ng/L	
Hg2600-3	BC	SAM	F707533-BSD2	100	8/10/2017 9:18:44	72831-1.RAW	9:18:44 AM	176.93	1		172.7	2.022	202.178	ng/L	
Hg2600-3	BC	SAM	1707617-21	100	8/10/2017 9:22:52	72832-1.RAW	9:22:52 AM	943.93	1		939.7	11.015	1101.493	ng/L	
Hg2600-3	BC	SAM	1707617-22	100	8/10/2017 9:27:01	72833-1.RAW	9:27:01 AM	279.67	1		275.5	3.226	322.641	ng/L	
Hg2600-3	BC	SAM	1707617-23	100	8/10/2017 9:31:09	72834-1.RAW	9:31:09 AM	362.78	1		358.6	4.201	420.089	ng/L	
Hg2600-3	BC	SAM	1707617-24	100	8/10/2017 9:35:18	72835-1.RAW	9:35:18 AM	122.56	1		118.4	1.384	138.428	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	8/10/2017 9:39:26	72836-1.RAW	9:39:26 AM	419.73			415.5	4.872	4.872	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	8/10/2017 9:43:35	72837-1.RAW	9:43:35 AM	6.96			2.8	0.033	0.033	ng/L	
Hg2600-3	BC	SAM	1707617-25	100	8/10/2017 9:47:43	72838-1.RAW	9:47:43 AM	85.05	1		80.9	0.944	94.447	ng/L	
Hg2600-3	BC	SAM	1707617-26	100	8/10/2017 9:51:51	72839-1.RAW	9:51:51 AM	18.20	1		14.0	0.161	16.065	ng/L	
Hg2600-3	BC	SAM	1707617-27	100	8/10/2017 9:56:00	72840-1.RAW	9:56:00 AM	186.76	1		182.6	2.137	213.703	ng/L	
Hg2600-3	BC	SAM	1707617-28	100	8/10/2017 10:00:08	72841-1.RAW	10:00:08 AM	1653.83	1		1649.6	19.339	1933.858	ng/L	
Hg2600-3	BC	SAM	1707619-01	100	8/10/2017 10:04:17	72842-1.RAW	10:04:17 AM	606.52	1		602.3	7.059	705.876	ng/L	
Hg2600-3	BC	SAM	1707619-02	100	8/10/2017 10:08:25	72843-1.RAW	10:08:25 AM	558.95	1		554.8	6.501	650.100	ng/L	
Hg2600-3	BC	SAM	1707619-03	100	8/10/2017 10:12:33	72844-1.RAW	10:12:33 AM	87.96	1		83.8	0.979	97.859	ng/L	
Hg2600-3	BC	SAM	1707619-04	100	8/10/2017 10:16:42	72845-1.RAW	10:16:42 AM	243.90	1		239.7	2.807	280.701	ng/L	
Hg2600-3	BC	SAM	1707619-05	100	8/10/2017 10:20:50	72846-1.RAW	10:20:50 AM	750.33	1		746.1	8.745	874.495	ng/L	
Hg2600-3	BC	SAM	1707619-06	100	8/10/2017 10:24:59	72847-1.RAW	10:24:59 AM	123.99	1		119.8	1.401	140.105	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	8/10/2017 10:29:07	72848-1.RAW	10:29:07 AM	418.23			414.0	4.855	4.855	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	8/10/2017 10:33:16	72849-1.RAW	10:33:16 AM	6.53			2.3	0.028	0.028	ng/L	
Hg2600-3	BC	SAM	1707619-07	100	8/10/2017 10:37:24	72850-1.RAW	10:37:24 AM	755.71	1		751.5	8.808	880.803	ng/L	
Hg2600-3	BC	SAM	1707619-08	100	8/10/2017 10:41:32	72851-1.RAW	10:41:32 AM	160.24	1		156.1	1.826	182.608	ng/L	
Hg2600-3	BC	SAM	1707619-09	100	8/10/2017 10:45:41	72852-1.RAW	10:45:41 AM	576.84	1		572.7	6.711	671.076	ng/L	
Hg2600-3	BC	SAM	1707619-10	100	8/10/2017 10:49:49	72853-1.RAW	10:49:49 AM	624.66	1		620.5	7.271	727.146	ng/L	
Hg2600-3	BC	SAM	1707619-12	100	8/10/2017 10:53:58	72854-1.RAW	10:53:58 AM	308.32	1		304.1	3.562	356.234	ng/L	
Hg2600-3	BC	SAM	1707619-13	100	8/10/2017 10:58:06	72855-1.RAW	10:58:06 AM	725.90	1		721.7	8.459	845.850	ng/L	
Hg2600-3	BC	SAM	1707617-25RE1	10	8/10/2017 11:02:15	72856-1.RAW	11:02:15 AM	776.19	1		772.0	9.015	90.149	ng/L	
Hg2600-3	BC	SAM	1707617-26RE1	10	8/10/2017 11:06:23	72857-1.RAW	11:06:23 AM	131.26	1		127.1	1.453	14.530	ng/L	
Hg2600-3	BC	SAM	1707619-03RE1	10	8/10/2017 11:10:31	72858-1.RAW	11:10:31 AM	828.76	1		824.6	9.631	96.313	ng/L	
Hg2600-3	BC	SAM	F707533-MS1	400	8/10/2017 11:14:40	72859-1.RAW	11:14:40 AM	14.20	1		10.0	0.117	46.609	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	8/10/2017 11:18:48	72860-1.RAW	11:18:48 AM	428.25			422.1	4.949	4.949	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	8/10/2017 11:22:57	72861-1.RAW	11:22:57 AM	5.42			1.2	0.015	0.015	ng/L	
Hg2600-3	BC	SAM	F707533-MSD1	400	8/10/2017 11:27:05	72862-1.RAW	11:27:05 AM	469.38	1		465.2	5.454	2181.422	ng/L	
Hg2600-3	BC	SAM	F707533-MS2	400	8/10/2017 11:31:13	72863-1.RAW	11:31:13 AM	654.96	1		650.8	7.629	3051.799	ng/L	
Hg2600-3	BC	SAM	F707533-MSD2	400	8/10/2017 11:35:22	72864-1.RAW	11:35:22 AM	636.18	1		632.0	7.409	2963.720	ng/L	
Hg2600-3	BC	BLK	F708340-BLK1	100	8/10/2017 11:39:30	72865-1.RAW	11:39:30 AM	9.17	2		5.0	0.058	5.847	ng/L	
Hg2600-3	BC	BLK	F708340-BLK2	100	8/10/2017 11:43:39	72866-1.RAW	11:43:39 AM	3.54	2		-0.6	-0.008	-0.754	ng/L	
Hg2600-3	BC	BLK	F708340-BLK3	100	8/10/2017 11:47:47	72867-1.RAW	11:47:47 AM	6.66	2		2.5	0.029	2.904	ng/L	
Hg2600-3	BC	SAM	F708340-BS1	400	8/10/2017 11:51:56	72868-1.RAW	11:51:56 AM	408.55	2		404.4	4.735	1893.830	ng/L	
Hg2600-3	BC	SAM	F708340-BS2	400	8/10/2017 11:56:04	72869-1.RAW	11:56:04 AM	418.66	2		414.5	4.853	1941.247	ng/L	
Hg2600-3	BC	SAM	F708340-BS2	400	8/10/2017 12:00:12	72870-1.RAW	12:00:12 PM	393.98	2		389.8	4.564	1825.497	ng/L	
Hg2600-3	BC	SAM	F708340-BSD2	400	8/10/2017 12:04:21	72871-1.RAW	12:04:21 PM	393.79	2		389.6	4.562	1824.605	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	8/10/2017 12:08:29	72872-1.RAW	12:08:29 PM	418.04			413.9	4.853	4.853	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	CAL	SEQ-CCB4	1	8/10/2017 12:12:38	72873-1.RAW	12:12:38 PM	5.55			1.4	0.016	0.016	ng/L	
Hg2600-3	BC	SAM	1708206-01	100	8/10/2017 12:16:46	72874-1.RAW	12:16:46 PM	4.94	2		0.8	-0.018	-1.778	ng/L	
Hg2600-3	BC	SAM	F707533-MS3	10	8/10/2017 12:20:54	72875-1.RAW	12:20:54 PM	305.20	1		301.0	3.492	34.925	ng/L	
Hg2600-3	BC	SAM	F707533-MSD3	400	8/10/2017 12:25:03	72876-1.RAW	12:25:03 PM	480.32	1		476.1	5.582	2232.731	ng/L	
Hg2600-3	BC	BLK	F708299-BLK1	20	8/10/2017 12:29:11	72877-1.RAW	12:29:11 PM	7.28	3		3.1	0.036	0.726	ng/L	
Hg2600-3	BC	BLK	F708299-BLK2	20	8/10/2017 12:33:20	72878-1.RAW	12:33:20 PM	6.49	3		2.3	0.027	0.541	ng/L	
Hg2600-3	BC	BLK	F708299-BLK3	20	8/10/2017 12:37:28	72879-1.RAW	12:37:28 PM	6.48	3		2.3	0.027	0.539	ng/L	
Hg2600-3	BC	SAM	*F708299-BLK4	20	8/10/2017 12:41:37	72880-1.RAW	12:41:37 PM	7.12	3		2.9	0.004	0.087	ng/L	
Hg2600-3	BC	SAM	*F708299-BLK5	20	8/10/2017 12:45:45	72881-1.RAW	12:45:45 PM	6.69	3		2.5	-0.001	-0.014	ng/L	
Hg2600-3	BC	SAM	F708299-BS1	20	8/10/2017 12:49:53	72882-1.RAW	12:49:53 PM	430.78	3		426.6	4.972	99.431	ng/L	
Hg2600-3	BC	SAM	F708299-BSD1	20	8/10/2017 12:54:02	72883-1.RAW	12:54:02 PM	431.89	3		427.7	4.985	99.696	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	8/10/2017 12:58:10	72884-1.RAW	12:58:10 PM	430.66			426.5	5.000	5.000	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	8/10/2017 13:02:19	72885-1.RAW	1:02:19 PM	2.72			-1.5	-0.017	-0.017	ng/L	
Hg2600-3	BC	SAM	F708299-BS2	400	8/10/2017 13:06:28	72886-1.RAW	1:06:28 PM	474.37	3		470.2	5.511	2204.592	ng/L	
Hg2600-3	BC	SAM	1708119-01	400	8/10/2017 13:10:36	72887-1.RAW	1:10:36 PM	100.12	3		95.9	1.123	449.345	ng/L	
Hg2600-3	BC	SAM	1708119-02	400	8/10/2017 13:14:45	72888-1.RAW	1:14:45 PM	95.77	3		91.6	1.072	428.943	ng/L	
Hg2600-3	BC	SAM	1708119-03	400	8/10/2017 13:18:54	72889-1.RAW	1:18:54 PM	139.77	3		135.6	1.588	635.305	ng/L	
Hg2600-3	BC	SAM	1708119-04	400	8/10/2017 13:23:02	72890-1.RAW	1:23:02 PM	87.24	3		83.1	0.972	388.937	ng/L	
Hg2600-3	BC	SAM	1708119-05	100	8/10/2017 13:28:31	72891-1.RAW	1:28:31 PM	288.48	3		284.3	3.327	332.739	ng/L	
Hg2600-3	BC	SAM	1708119-06	100	8/10/2017 13:32:39	72892-1.RAW	1:32:39 PM	570.00	3		565.8	6.628	662.824	ng/L	
Hg2600-3	BC	SAM	1708119-07	100	8/10/2017 13:36:48	72893-1.RAW	1:36:48 PM	376.54	3		372.4	4.360	435.990	ng/L	
Hg2600-3	BC	SAM	1708119-08	100	8/10/2017 13:40:56	72894-1.RAW	1:40:56 PM	232.48	3		228.3	2.671	267.078	ng/L	
Hg2600-3	BC	SAM	1708119-09	100	8/10/2017 13:45:05	72895-1.RAW	1:45:05 PM	147.55	3		143.4	1.675	167.497	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	8/10/2017 13:49:13	72896-1.RAW	1:49:13 PM	426.25			422.1	4.949	4.949	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	8/10/2017 13:53:22	72897-1.RAW	1:53:22 PM	3.52			-0.7	-0.008	-0.008	ng/L	
Hg2600-3	BC	SAM	1708119-10	100	8/10/2017 13:57:30	72898-1.RAW	1:57:30 PM	159.28	3		155.1	1.813	181.251	ng/L	
Hg2600-3	BC	SAM	1708119-01RE1	100	8/10/2017 14:05:57	72899-1.RAW	2:05:57 PM	401.19	3		397.0	4.649	464.892	ng/L	
Hg2600-3	BC	SAM	1708119-02RE1	100	8/10/2017 14:10:08	72900-1.RAW	2:10:06 PM	381.98	3		377.8	4.424	442.368	ng/L	
Hg2600-3	BC	SAM	1708119-03RE1	100	8/10/2017 14:14:14	72901-1.RAW	2:14:14 PM	535.16	3		531.0	6.220	621.974	ng/L	
Hg2600-3	BC	SAM	1708119-04RE1	100	8/10/2017 14:18:22	72902-1.RAW	2:18:22 PM	347.57	3		343.4	4.020	402.022	ng/L	
Hg2600-3	BC	SAM	F708299-DUP1	100	8/10/2017 14:22:31	72903-1.RAW	2:22:31 PM	437.83	3		433.6	5.079	507.853	ng/L	
Hg2600-3	BC	SAM	F708299-MS1	400	8/10/2017 14:26:39	72904-1.RAW	2:26:39 PM	1121.03	3		1116.8	13.094	5237.454	ng/L	
Hg2600-3	BC	SAM	F708299-MSD1	400	8/10/2017 14:30:48	72905-1.RAW	2:30:48 PM	1093.11	3		1088.9	12.766	5106.508	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	8/10/2017 14:40:50	72906-1.RAW	2:40:50 PM	433.88			429.7	5.038	5.038	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7		8/10/2017 14:44:59	72907-1.RAW	2:44:59 PM	6.66			2.5	0.029	0.000	ng/L	

TotalMercury EPA1631
 Operat: BC
 BlankSi 4.187
 Calib Eqn: Conc = (Area-4.186
 Run Date: 8/9/2017
 Blank SD: 0.332455914
 Worksh: THg2600
 CalibFa 85.287
 Status: QC Warnings:4/QC E
 Run Time: 14:36:41
 Blank RSD%: 7.94026373
 Method ##### R: 1
 R²: 1
 CF SD: 5.358779165
 CF RSD%: 6.283252318
 Descrip THg26003-170809-1

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ref)	Flags	RunCount
Clean				0.00	5.95					72811-2.RAW	7:47:56	507.16	Clean	OK	1
clean										72812-1.RAW	7:50:47	0.00	Clean	NP	1
ws				4.19	0.00					72813-1.RAW	7:54:56	3.63	Sample	OK	1
ws				4.19	0.00					72814-1.RAW	7:59:04	0.37	Sample	OK	1
ws										72815-1.RAW	8:03:12	0.00	Sample	NP	1
SEQ-IBL1	A1		1	0.00	0.05					72816-1.RAW	8:07:21	4.36	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.04					72817-1.RAW	8:11:29	3.80	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					72818-1.RAW	8:15:38	4.39	Sample	OK	1
SEQ-CAL1	A4		1	4.19	0.55		110.82			72819-1.RAW	8:19:46	51.44	Sample	OK	1
SEQ-CAL2	A5		1	4.19	1.00		100.19			72820-1.RAW	8:23:55	89.63	Sample	OK	1
SEQ-CAL3	A6		1	4.19	4.84		96.72			72821-1.RAW	8:28:03	416.65	Sample	OK	1
SEQ-CAL4	A7		1	4.19	19.30		96.48			72822-1.RAW	8:32:11	1649.82	Sample	OK	1
SEQ-CAL5	A8		1	4.19	38.32		95.79			72823-1.RAW	8:36:20	3272.20	Sample	OK	1
SEQ-ICV1	A9		1	4.19	4.84		96.76			72824-1.RAW	8:40:28	416.79	Sample	OK	1
WS				4.19	0.02					72825-1.RAW	8:53:54	5.55	Sample	OK	1
F707533-BLK1	A10		10	4.19	0.27					72826-1.RAW	8:58:02	6.49	Sample	OK	1
F707533-BLK2	A11		10	4.19	0.47					72827-1.RAW	9:02:10	8.18	Sample	OK	1
F707533-BS1	A12		400	4.19	215.40					72828-1.RAW	9:06:19	50.11	Sample	OK	1
F707533-BSD1	B1		400	4.19	186.93					72829-1.RAW	9:10:27	44.04	Sample	OK	1
F707533-BS2	B2		100	4.19	208.25					72830-1.RAW	9:14:36	181.80	Sample	OK	1
F707533-BSD2	B3		100	4.19	202.55					72831-1.RAW	9:18:44	176.93	Sample	OK	1
1707617-21	B4		100	4.19	1101.87					72832-1.RAW	9:22:52	943.93	Sample	OK	1
1707617-22	B5		100	4.19	323.01					72833-1.RAW	9:27:01	279.67	Sample	OK	1
1707617-23	B6		100	4.19	420.45					72834-1.RAW	9:31:09	362.78	Sample	OK	1
1707617-24	B7		100	4.19	138.79					72835-1.RAW	9:35:18	122.56	Sample	OK	1
SEQ-CCV1	B8		1	4.19	4.87		97.45			72836-1.RAW	9:39:26	419.73	Sample	OK	1
SEQ-CCB1	B9		1	4.19	0.03		0.00			72837-1.RAW	9:43:35	6.96	Sample	OK	1
1707617-25	B10		100	4.19	94.82					72838-1.RAW	9:47:43	85.05	Sample	OK	1
1707617-26	B11		100	4.19	16.43					72839-1.RAW	9:51:51	18.20	Sample	OK	1
1707617-27	B12		100	4.19	214.07					72840-1.RAW	9:56:00	186.76	Sample	OK	1
1707617-28	C1		100	4.19	1934.23					72841-1.RAW	10:00:08	1653.83	Sample	OK	1
1707619-01	C2		100	4.19	706.25					72842-1.RAW	10:04:17	606.52	Sample	OK	1
1707619-02	C3		100	4.19	650.47					72843-1.RAW	10:08:25	558.95	Sample	OK	1
1707619-03	C4		100	4.19	98.23					72844-1.RAW	10:12:33	87.96	Sample	OK	1
1707619-04	C5		100	4.19	281.06					72845-1.RAW	10:16:42	243.90	Sample	OK	1
1707619-05	C6		100	4.19	874.87					72846-1.RAW	10:20:50	750.33	Sample	OK	1
1707619-06	C7		100	4.19	140.47					72847-1.RAW	10:24:59	123.99	Sample	OK	1
SEQ-CCV2	C8		1	4.19	4.85		97.09			72848-1.RAW	10:29:07	418.23	Sample	OK	1
SEQ-CCB2	C9		1	4.19	0.03		0.00			72849-1.RAW	10:33:16	6.53	Sample	OK	1
1707619-07	C10		100	4.19	881.17					72850-1.RAW	10:37:24	755.71	Sample	OK	1
1707619-08	C11		100	4.19	182.97					72851-1.RAW	10:41:32	160.24	Sample	OK	1
1707619-09	C12		100	4.19	671.44					72852-1.RAW	10:45:41	576.84	Sample	OK	1
1707619-10	D1		100	4.19	727.51					72853-1.RAW	10:49:49	624.66	Sample	OK	1

1707619-12	D2	100	4.19	356.60		72854-1.RAW	10:53:58	308.32	Sample	OK	1
1707619-13	D3	100	4.19	846.23		72855-1.RAW	10:58:06	725.90	Sample	OK	1
1707617-25RE1	D4	10	4.19	905.18		72856-1.RAW	11:02:15	776.19	Sample	OK	1
1707617-26RE1	D5	10	4.19	149.00		72857-1.RAW	11:06:23	131.26	Sample	OK	1
1707619-03RE1	D6	10	4.19	966.83		72858-1.RAW	11:10:31	828.76	Sample	OK	1
F707533-MS1	D7	400	4.19	46.95	4.85	72859-1.RAW	11:14:40	14.20	Sample	OK	1
SEQ-CCV3	D8	1	4.19	4.95	98.98	72860-1.RAW	11:18:48	426.25	Sample	OK	1
SEQ-CCB3	D9	1	4.19	0.01	0.00	72861-1.RAW	11:22:57	5.42	Sample	OK	1
F707533-MSD1	D10	400	4.19	2181.78		72862-1.RAW	11:27:05	469.38	Sample	OK	1
F707533-MS2	D11	400	4.19	3052.19	139.77	72863-1.RAW	11:31:13	654.96	Sample	OK	1
F707533-MSD2	D12	400	4.19	2964.08		72864-1.RAW	11:35:22	636.18	Sample	OK	1
F708340-BLK1	A1	100	4.19	5.84		72865-1.RAW	11:39:30	9.17	Sample	OK	1
F708340-BLK2	A2	100	4.19	0.00		72866-1.RAW	11:43:39	3.54	Sample	OK	1
F708340-BLK3	A3	100	4.19	2.90		72867-1.RAW	11:47:47	6.66	Sample	OK	1
F708340-BS1	A4	400	4.19	1896.47		72868-1.RAW	11:51:56	408.55	Sample	OK	1
F708340-BSD1	A5	400	4.19	1943.93		72869-1.RAW	11:56:04	418.66	Sample	OK	1
F708340-BS2	A6	400	4.19	1828.15		72870-1.RAW	12:00:12	393.98	Sample	OK	1
F708340-BSD2	A7	400	4.19	1827.26		72871-1.RAW	12:04:21	393.79	Sample	OK	1
SEQ-CCV4	A8	1	4.19	4.85	97.05	72872-1.RAW	12:08:29	418.04	Sample	OK	1
SEQ-CCB4	A9	1	4.19	0.02	0.00	72873-1.RAW	12:12:38	5.55	Sample	OK	1
1708206-01	A10	100	4.19	0.88		72874-1.RAW	12:16:46	4.94	Sample	OK	1
F707533-MS3	A11	10	4.19	35.29	910.33	72875-1.RAW	12:20:54	305.20	Sample	OK	1
F707533-MSD3	A12	400	4.19	2233.08		72876-1.RAW	12:25:03	480.32	Sample	OK	1
F708299-BLK1	B1	20	4.19	0.73		72877-1.RAW	12:29:11	7.28	Sample	OK	1
F708299-BLK2	B2	20	4.19	0.54		72878-1.RAW	12:33:20	6.49	Sample	OK	1
F708299-BLK3	B3	20	4.19	0.54		72879-1.RAW	12:37:28	6.48	Sample	OK	1
*F708299-BLK4	B4	20	4.19	0.69		72880-1.RAW	12:41:37	7.12	Sample	OK	1
*F708299-BLK5	B5	20	4.19	0.59		72881-1.RAW	12:45:45	6.69	Sample	OK	1
F708299-BS1	B6	20	4.19	100.03		72882-1.RAW	12:49:53	430.76	Sample	OK	1
F708299-BSD1	B7	20	4.19	100.30		72883-1.RAW	12:54:02	431.89	Sample	OK	1
SEQ-CCV5	B8	1	4.19	5.00	100.01	72884-1.RAW	12:58:10	430.66	Sample	OK	1
SEQ-CCB5	B9	1	4.19	0.00	0.00	72885-1.RAW	13:02:19	2.72	Sample	OK	1
F708299-BS2	B10	400	4.19	2205.19		72886-1.RAW	13:06:28	474.37	Sample	OK	1
1708119-01	B11	400	4.19	449.92		72887-1.RAW	13:10:36	100.12	Sample	OK	1
1708119-02	B12	400	4.19	429.51		72888-1.RAW	13:14:45	95.77	Sample	OK	1
1708119-03	C1	400	4.19	635.87		72889-1.RAW	13:18:54	139.77	Sample	OK	1
1708119-04	C2	400	4.19	389.53		72890-1.RAW	13:23:02	87.24	Sample	OK	1
1708119-05	C3	100	4.19	333.34		72891-1.RAW	13:28:31	288.48	Sample	OK	1
1708119-06	C4	100	4.19	663.42		72892-1.RAW	13:32:39	570.00	Sample	OK	1
1708119-07	C5	100	4.19	436.59		72893-1.RAW	13:36:48	376.54	Sample	OK	1
1708119-08	C6	100	4.19	267.67		72894-1.RAW	13:40:56	232.48	Sample	OK	1
1708119-09	C7	100	4.19	168.09		72895-1.RAW	13:45:05	147.55	Sample	OK	1
SEQ-CCV6	C8	1	4.19	4.95	98.98	72896-1.RAW	13:49:13	426.25	Sample	OK	1
SEQ-CCB6	C9	1	4.19	0.00	0.00	72897-1.RAW	13:53:22	3.52	Sample	OK	1
1708119-10	C10	100	4.19	181.85		72898-1.RAW	13:57:30	159.28	Sample	OK	1
1708119-01RE1	C11	100	4.19	465.49		72899-1.RAW	14:05:57	401.19	Sample	OK	1
1708119-02RE1	C12	100	4.19	442.96		72900-1.RAW	14:10:06	381.98	Sample	OK	1
1708119-03RE1	D1	100	4.19	622.57		72901-1.RAW	14:14:14	535.16	Sample	OK	1

1708119-04RE1	D2	100	4.19	402.63		72902-1.RAW	14:18:22	347.57	Sample	OK	1
F708299-DUP1	D3	100	4.19	508.46		72903-1.RAW	14:22:31	437.83	Sample	OK	1
F708299-MS1	D4	400	4.19	5238.04	1028.16	72904-1.RAW	14:26:39	1121.03	Sample	OK	1
F708299-MSD1	D5	400	4.19	5107.10		72905-1.RAW	14:30:48	1093.11	Sample	OK	1
SEQ-CCV7	D6	1	4.19	5.04	100.76	72906-1.RAW	14:40:50	433.88	Sample	OK	1
SEQ-CCB7	D7	1	4.19	0.03	0.00	72907-1.RAW	14:44:59	6.66	Sample	OK	1

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	CAL	SEQ-IBL1	1	8/10/2017 8:07:21	72816-1.RAW	8:07:21 AM	4.36			0.2	0.002	0.002	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	8/10/2017 8:11:29	72817-1.RAW	8:11:29 AM	3.80			-0.4	-0.004	-0.004	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	8/10/2017 8:15:38	72818-1.RAW	8:15:38 AM	4.39			0.2	0.002	0.002	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	8/10/2017 8:19:46	72819-1.RAW	8:19:46 AM	51.44			47.3	0.554	0.554	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	8/10/2017 8:23:55	72820-1.RAW	8:23:55 AM	89.63			85.4	1.002	1.002	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	8/10/2017 8:28:03	72821-1.RAW	8:28:03 AM	416.65			412.5	4.836	4.836	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	8/10/2017 8:32:11	72822-1.RAW	8:32:11 AM	1649.82			1645.6	19.295	19.295	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	8/10/2017 8:36:20	72823-1.RAW	8:36:20 AM	3272.20			3268.0	38.318	38.318	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	8/10/2017 8:40:28	72824-1.RAW	8:40:28 AM	416.79			412.6	4.838	4.838	ng/L	
Hg2600-3	BC	SAM	WS		8/10/2017 8:53:54	72825-1.RAW	8:53:54 AM	5.55			1.4	Error	#VALUE!	ng/L	
Hg2600-3	BC	BLK	F707533-BLK1	10	8/10/2017 8:58:02	72826-1.RAW	8:58:02 AM	6.49		1	2.3	0.027	0.270	ng/L	
Hg2600-3	BC	BLK	F707533-BLK2	10	8/10/2017 9:02:10	72827-1.RAW	9:02:10 AM	8.18		1	4.0	0.047	0.469	ng/L	
Hg2600-3	BC	SAM	F707533-BS1	400	8/10/2017 9:06:19	72828-1.RAW	9:06:19 AM	50.11		1	45.9	0.538	215.028	ng/L	
Hg2600-3	BC	SAM	F707533-BSD1	400	8/10/2017 9:10:27	72829-1.RAW	9:10:27 AM	44.04		1	39.9	0.466	186.560	ng/L	
Hg2600-3	BC	SAM	F707533-BS2	100	8/10/2017 9:14:36	72830-1.RAW	9:14:36 AM	181.80		1	177.6	2.079	207.888	ng/L	
Hg2600-3	BC	SAM	F707533-BSD2	100	8/10/2017 9:18:44	72831-1.RAW	9:18:44 AM	178.93		1	172.7	2.022	202.178	ng/L	
Hg2600-3	BC	SAM	1707617-21	100	8/10/2017 9:22:52	72832-1.RAW	9:22:52 AM	943.93		1	939.7	11.015	1101.493	ng/L	
Hg2600-3	BC	SAM	1707617-22	100	8/10/2017 9:27:01	72833-1.RAW	9:27:01 AM	279.67		1	275.5	3.226	322.641	ng/L	
Hg2600-3	BC	SAM	1707617-23	100	8/10/2017 9:31:09	72834-1.RAW	9:31:09 AM	362.78		1	358.6	4.201	420.089	ng/L	
Hg2600-3	BC	SAM	1707617-24	100	8/10/2017 9:35:18	72835-1.RAW	9:35:18 AM	122.56		1	118.4	1.384	138.428	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	8/10/2017 9:39:26	72836-1.RAW	9:39:26 AM	419.73			415.5	4.872	4.872	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	8/10/2017 9:43:35	72837-1.RAW	9:43:35 AM	8.96			2.8	0.033	0.033	ng/L	
Hg2600-3	BC	SAM	1707617-25	100	8/10/2017 9:47:43	72838-1.RAW	9:47:43 AM	85.05		1	80.9	0.944	94.447	ng/L	
Hg2600-3	BC	SAM	1707617-26	100	8/10/2017 9:51:51	72839-1.RAW	9:51:51 AM	18.20		1	14.0	0.161	16.065	ng/L	
Hg2600-3	BC	SAM	1707617-27	100	8/10/2017 9:56:00	72840-1.RAW	9:56:00 AM	186.76		1	182.6	2.137	213.703	ng/L	
Hg2600-3	BC	SAM	1707617-28	100	8/10/2017 10:00:08	72841-1.RAW	10:00:08 AM	1653.83		1	1649.6	19.339	1933.858	ng/L	
Hg2600-3	BC	SAM	1707619-01	100	8/10/2017 10:04:17	72842-1.RAW	10:04:17 AM	606.52		1	602.3	7.059	705.876	ng/L	
Hg2600-3	BC	SAM	1707619-02	100	8/10/2017 10:08:25	72843-1.RAW	10:08:25 AM	558.95		1	554.8	6.501	650.100	ng/L	
Hg2600-3	BC	SAM	1707619-03	100	8/10/2017 10:12:33	72844-1.RAW	10:12:33 AM	87.96		1	83.8	0.979	97.859	ng/L	
Hg2600-3	BC	SAM	1707619-04	100	8/10/2017 10:16:42	72845-1.RAW	10:16:42 AM	243.90		1	239.7	2.807	280.701	ng/L	
Hg2600-3	BC	SAM	1707619-05	100	8/10/2017 10:20:50	72846-1.RAW	10:20:50 AM	750.33		1	746.1	8.745	874.495	ng/L	
Hg2600-3	BC	SAM	1707619-06	100	8/10/2017 10:24:59	72847-1.RAW	10:24:59 AM	123.99		1	119.8	1.401	140.105	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	8/10/2017 10:29:07	72848-1.RAW	10:29:07 AM	418.23			414.0	4.855	4.855	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	8/10/2017 10:33:16	72849-1.RAW	10:33:16 AM	6.53			2.3	0.028	0.028	ng/L	
Hg2600-3	BC	SAM	1707619-07	100	8/10/2017 10:37:24	72850-1.RAW	10:37:24 AM	755.71		1	751.5	8.808	880.803	ng/L	
Hg2600-3	BC	SAM	1707619-08	100	8/10/2017 10:41:32	72851-1.RAW	10:41:32 AM	160.24		1	156.1	1.826	182.608	ng/L	
Hg2600-3	BC	SAM	1707619-09	100	8/10/2017 10:45:41	72852-1.RAW	10:45:41 AM	576.84		1	572.7	6.711	671.076	ng/L	
Hg2600-3	BC	SAM	1707619-10	100	8/10/2017 10:49:49	72853-1.RAW	10:49:49 AM	624.66		1	620.5	7.271	727.146	ng/L	
Hg2600-3	BC	SAM	1707619-12	100	8/10/2017 10:53:58	72854-1.RAW	10:53:58 AM	308.32		1	304.1	3.562	356.234	ng/L	
Hg2600-3	BC	SAM	1707619-13	100	8/10/2017 10:58:06	72855-1.RAW	10:58:06 AM	725.90		1	721.7	8.459	845.850	ng/L	
Hg2600-3	BC	SAM	1707617-25RE1	100	8/10/2017 11:02:15	72856-1.RAW	11:02:15 AM	776.19		1	772.0	9.048	904.816	ng/L	
Hg2600-3	BC	SAM	1707617-26RE1	100	8/10/2017 11:06:23	72857-1.RAW	11:06:23 AM	131.26		1	127.1	1.486	148.629	ng/L	
Hg2600-3	BC	SAM	1707619-03RE1	100	8/10/2017 11:10:31	72858-1.RAW	11:10:31 AM	828.76		1	824.6	9.665	966.455	ng/L	
Hg2600-3	BC	SAM	F707533-MS1	400	8/10/2017 11:14:40	72859-1.RAW	11:14:40 AM	14.20		1	10.0	0.117	46.609	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	8/10/2017 11:18:48	72860-1.RAW	11:18:48 AM	426.25			422.1	4.949	4.949	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	8/10/2017 11:22:57	72861-1.RAW	11:22:57 AM	5.42			1.2	0.015	0.015	ng/L	
Hg2600-3	BC	SAM	F707533-MSD1	400	8/10/2017 11:27:05	72862-1.RAW	11:27:05 AM	469.38		1	465.2	5.454	2181.422	ng/L	
Hg2600-3	BC	SAM	F707533-MS2	400	8/10/2017 11:31:13	72863-1.RAW	11:31:13 AM	654.96		1	650.8	7.629	3051.799	ng/L	
Hg2600-3	BC	SAM	F707533-MSD2	400	8/10/2017 11:35:22	72864-1.RAW	11:35:22 AM	636.18		1	632.0	7.409	2963.720	ng/L	
Hg2600-3	BC	BLK	F708340-BLK1	100	8/10/2017 11:39:30	72865-1.RAW	11:39:30 AM	9.17		2	5.0	0.058	5.847	ng/L	
Hg2600-3	BC	BLK	F708340-BLK2	100	8/10/2017 11:43:39	72866-1.RAW	11:43:39 AM	3.54		2	-0.6	-0.008	-0.754	ng/L	
Hg2600-3	BC	BLK	F708340-BLK3	100	8/10/2017 11:47:47	72867-1.RAW	11:47:47 AM	6.66		2	2.5	0.029	2.904	ng/L	
Hg2600-3	BC	SAM	F708340-BS1	400	8/10/2017 11:51:56	72868-1.RAW	11:51:56 AM	408.55		2	404.4	4.735	1893.830	ng/L	
Hg2600-3	BC	SAM	F708340-BSD1	400	8/10/2017 11:56:04	72869-1.RAW	11:56:04 AM	418.66		2	414.5	4.853	1941.247	ng/L	
Hg2600-3	BC	SAM	F708340-BS2	400	8/10/2017 12:00:12	72870-1.RAW	12:00:12 PM	393.98		2	389.8	4.564	1825.497	ng/L	
Hg2600-3	BC	SAM	F708340-BSD2	400	8/10/2017 12:04:21	72871-1.RAW	12:04:21 PM	393.79		2	389.6	4.562	1824.605	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV4	1	8/10/2017 12:08:29	72872-1.RAW	12:08:29 PM	418.04			413.9	4.853	4.853	ng/L	

100
100
100
100

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Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	BC	CAL	SEQ-CCB4	1	8/10/2017 12:12:38	72873-1.RAW	12:12:38 PM	5.55			1.4	0.016	0.016	ng/L	
Hg2600-3	BC	SAM	1708206-01	100	8/10/2017 12:16:46	72874-1.RAW	12:16:46 PM	4.94	2		0.8	-0.018	-1.778	ng/L	
Hg2600-3	BC	SAM	F707533-MS3	10	8/10/2017 12:20:54	72875-1.RAW	12:20:54 PM	305.20	1		301.0	3.492	34.925	ng/L	
Hg2600-3	BC	SAM	F707533-MSD3	400	8/10/2017 12:25:03	72876-1.RAW	12:25:03 PM	480.32	1		476.1	5.582	2232.731	ng/L	
Hg2600-3	BC	BLK	F708299-BLK1	20	8/10/2017 12:29:11	72877-1.RAW	12:29:11 PM	7.28	3		3.1	0.036	0.726	ng/L	
Hg2600-3	BC	BLK	F708299-BLK2	20	8/10/2017 12:33:20	72878-1.RAW	12:33:20 PM	6.49	3		2.3	0.027	0.541	ng/L	
Hg2600-3	BC	BLK	F708299-BLK3	20	8/10/2017 12:37:28	72879-1.RAW	12:37:28 PM	6.48	3		2.3	0.027	0.539	ng/L	
Hg2600-3	BC	SAM	F708299-BLK4	20	8/10/2017 12:41:37	72880-1.RAW	12:41:37 PM	7.12	3		2.9	0.004	0.087	ng/L	
Hg2600-3	BC	SAM	F708299-BLK5	20	8/10/2017 12:45:45	72881-1.RAW	12:45:45 PM	6.69	3		2.5	-0.001	-0.014	ng/L	
Hg2600-3	BC	SAM	F708299-BS1	20	8/10/2017 12:49:53	72882-1.RAW	12:49:53 PM	430.76	3		426.6	4.972	99.431	ng/L	
Hg2600-3	BC	SAM	F708299-BSD1	20	8/10/2017 12:54:02	72883-1.RAW	12:54:02 PM	431.89	3		427.7	4.985	99.696	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5	1	8/10/2017 12:58:10	72884-1.RAW	12:58:10 PM	430.66			428.5	5.000	5.000	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5	1	8/10/2017 13:02:19	72885-1.RAW	1:02:19 PM	2.72			-1.5	-0.017	-0.017	ng/L	
Hg2600-3	BC	SAM	F708299-BS2	400	8/10/2017 13:06:28	72886-1.RAW	1:06:28 PM	474.37	3		470.2	5.511	2204.592	ng/L	
Hg2600-3	BC	SAM	1708119-01	400	8/10/2017 13:10:36	72887-1.RAW	1:10:36 PM	100.12	3		95.9	1.123	449.345	ng/L	
Hg2600-3	BC	SAM	1708119-02	400	8/10/2017 13:14:45	72888-1.RAW	1:14:45 PM	95.77	3		91.6	1.072	428.943	ng/L	
Hg2600-3	BC	SAM	1708119-03	400	8/10/2017 13:18:54	72889-1.RAW	1:18:54 PM	139.77	3		135.6	1.588	635.305	ng/L	
Hg2600-3	BC	SAM	1708119-04	400	8/10/2017 13:23:02	72890-1.RAW	1:23:02 PM	87.24	3		83.1	0.972	388.937	ng/L	
Hg2600-3	BC	SAM	1708119-05	100	8/10/2017 13:28:31	72891-1.RAW	1:28:31 PM	288.48	3		284.3	3.327	332.739	ng/L	
Hg2600-3	BC	SAM	1708119-06	100	8/10/2017 13:32:39	72892-1.RAW	1:32:39 PM	570.00	3		565.8	6.628	662.824	ng/L	
Hg2600-3	BC	SAM	1708119-07	100	8/10/2017 13:36:48	72893-1.RAW	1:36:48 PM	376.54	3		372.4	4.360	435.990	ng/L	
Hg2600-3	BC	SAM	1708119-08	100	8/10/2017 13:40:56	72894-1.RAW	1:40:56 PM	232.48	3		228.3	2.671	267.078	ng/L	
Hg2600-3	BC	SAM	1708119-09	100	8/10/2017 13:45:05	72895-1.RAW	1:45:05 PM	147.55	3		143.4	1.675	167.497	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6	1	8/10/2017 13:49:13	72896-1.RAW	1:49:13 PM	426.25			422.1	4.949	4.949	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6	1	8/10/2017 13:53:22	72897-1.RAW	1:53:22 PM	3.52			-0.7	-0.008	-0.008	ng/L	
Hg2600-3	BC	SAM	1708119-10	100	8/10/2017 13:57:30	72898-1.RAW	1:57:30 PM	159.28	3		155.1	1.813	181.251	ng/L	
Hg2600-3	BC	SAM	1708119-01RE1	100	8/10/2017 14:05:57	72899-1.RAW	2:05:57 PM	401.19	3		397.0	4.649	464.892	ng/L	
Hg2600-3	BC	SAM	1708119-02RE1	100	8/10/2017 14:10:06	72900-1.RAW	2:10:06 PM	381.98	3		377.8	4.424	442.368	ng/L	
Hg2600-3	BC	SAM	1708119-03RE1	100	8/10/2017 14:14:14	72901-1.RAW	2:14:14 PM	535.16	3		531.0	6.220	621.974	ng/L	
Hg2600-3	BC	SAM	1708119-04RE1	100	8/10/2017 14:18:22	72902-1.RAW	2:18:22 PM	347.57	3		343.4	4.020	402.022	ng/L	
Hg2600-3	BC	SAM	F708299-DUP1	100	8/10/2017 14:22:31	72903-1.RAW	2:22:31 PM	437.83	3		433.6	5.079	507.853	ng/L	
Hg2600-3	BC	SAM	F708299-MS1	400	8/10/2017 14:26:39	72904-1.RAW	2:26:39 PM	1121.03	3		1116.8	13.094	5237.454	ng/L	
Hg2600-3	BC	SAM	F708299-MSD1	400	8/10/2017 14:30:48	72905-1.RAW	2:30:48 PM	1093.11	3		1088.9	12.766	5106.508	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7	1	8/10/2017 14:40:50	72906-1.RAW	2:40:50 PM	433.88			429.7	5.038	5.038	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7	1	8/10/2017 14:44:59	72907-1.RAW	2:44:59 PM	6.66			2.5	0.029	0.000	ng/L	

Handwritten notes:
 12/10/17
 2/10/17

TotalMercury EPA1631
 Operati BC BlankSi 4.187 Calib Eqn: Conc = (Area-4.186 Run Date: 8/9/2017 Blank SD: 0.332455914
 Worksh THg260(CalibFa 85.287 Status: QC Warnings:4/QC E Run Time: 14:36:41 Blank RSD%: 7.94026373
 Method ##### R: 1 R²: 1 CF SD: 5.358779165
 Descrip THg26003-170809-1 CF RSD%: 6.283252318

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	5.95					72811-2.RAW	7:47:56	507.16	Clean	OK	1
clean										72812-1.RAW	7:50:47	0.00	Clean	NP	1
ws				4.19	0.00					72813-1.RAW	7:54:56	3.63	Sample	OK	1
ws				4.19	0.00					72814-1.RAW	7:59:04	0.37	Sample	OK	1
ws										72815-1.RAW	8:03:12	0.00	Sample	NP	1
SEQ-IBL1	A1		1	0.00	0.05					72816-1.RAW	8:07:21	4.36	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.04					72817-1.RAW	8:11:29	3.80	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					72818-1.RAW	8:15:38	4.39	Sample	OK	1
SEQ-CAL1	A4		1	4.19	0.55		110.82			72819-1.RAW	8:19:46	51.44	Sample	OK	1
SEQ-CAL2	A5		1	4.19	1.00		100.19			72820-1.RAW	8:23:55	89.63	Sample	OK	1
SEQ-CAL3	A6		1	4.19	4.84		96.72			72821-1.RAW	8:28:03	416.65	Sample	OK	1
SEQ-CAL4	A7		1	4.19	19.30		96.48			72822-1.RAW	8:32:11	1649.82	Sample	OK	1
SEQ-CAL5	A8		1	4.19	38.32		95.79			72823-1.RAW	8:36:20	3272.20	Sample	OK	1
SEQ-ICV1	A9		1	4.19	4.84		96.76			72824-1.RAW	8:40:28	416.79	Sample	OK	1
WS				4.19	0.02					72825-1.RAW	8:53:54	5.55	Sample	OK	1
F707533-BLK1	A10		10	4.19	0.27					72826-1.RAW	8:58:02	6.49	Sample	OK	1
F707533-BLK2	A11		10	4.19	0.47					72827-1.RAW	9:02:10	8.18	Sample	OK	1
F707533-BS1	A12		400	4.19	215.40					72828-1.RAW	9:06:19	50.11	Sample	OK	1
F707533-BSD1	B1		400	4.19	186.93					72829-1.RAW	9:10:27	44.04	Sample	OK	1
F707533-BSD2	B2		100	4.19	208.25					72830-1.RAW	9:14:36	181.80	Sample	OK	1
F707533-BSD2	B3		100	4.19	202.55					72831-1.RAW	9:18:44	176.93	Sample	OK	1
1707617-21	B4		100	4.19	1101.87					72832-1.RAW	9:22:52	943.93	Sample	OK	1
1707617-22	B5		100	4.19	323.01					72833-1.RAW	9:27:01	279.67	Sample	OK	1
1707617-23	B6		100	4.19	420.45					72834-1.RAW	9:31:09	362.78	Sample	OK	1
1707617-24	B7		100	4.19	138.79					72835-1.RAW	9:35:18	122.56	Sample	OK	1
SEQ-CCV1	B8		1	4.19	4.87		97.45			72836-1.RAW	9:39:26	419.73	Sample	OK	1
SEQ-CCB1	B9		1	4.19	0.03		0.00			72837-1.RAW	9:43:35	6.96	Sample	OK	1
1707617-25	B10		100	4.19	94.82					72838-1.RAW	9:47:43	85.05	Sample	OK	1
1707617-26	B11		100	4.19	16.43					72839-1.RAW	9:51:51	18.20	Sample	OK	1
1707617-27	B12		100	4.19	214.07					72840-1.RAW	9:56:00	186.76	Sample	OK	1
1707617-28	C1		100	4.19	1934.23					72841-1.RAW	10:00:08	1653.83	Sample	OK	1
1707619-01	C2		100	4.19	706.25					72842-1.RAW	10:04:17	606.52	Sample	OK	1
1707619-02	C3		100	4.19	650.47					72843-1.RAW	10:08:25	558.95	Sample	OK	1
1707619-03	C4		100	4.19	98.23					72844-1.RAW	10:12:33	87.96	Sample	OK	1
1707619-04	C5		100	4.19	281.06					72845-1.RAW	10:16:42	243.90	Sample	OK	1
1707619-05	C6		100	4.19	874.87					72846-1.RAW	10:20:50	750.33	Sample	OK	1
1707619-06	C7		100	4.19	140.47					72847-1.RAW	10:24:59	123.99	Sample	OK	1
SEQ-CCV2	C8		1	4.19	4.85		97.09			72848-1.RAW	10:29:07	418.23	Sample	OK	1
SEQ-CCB2	C9		1	4.19	0.03		0.00			72849-1.RAW	10:33:16	6.53	Sample	OK	1
1707619-07	C10		100	4.19	881.17					72850-1.RAW	10:37:24	755.71	Sample	OK	1
1707619-08	C11		100	4.19	182.97					72851-1.RAW	10:41:32	160.24	Sample	OK	1
1707619-09	C12		100	4.19	671.44					72852-1.RAW	10:45:41	576.84	Sample	OK	1
1707619-10	D1		100	4.19	727.51					72853-1.RAW	10:49:49	624.66	Sample	OK	1

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1707619-12	D2	100	4.19	356.60		72854-1.RAW	10:53:58	308.32	Sample	OK	1
1707619-13	D3	100	4.19	846.23		72855-1.RAW	10:58:06	725.90	Sample	OK	1
1707617-25RE1	D4	100	4.19	905.18		72856-1.RAW	11:02:15	776.19	Sample	OK	1
1707617-26RE1	D5	100	4.19	149.00		72857-1.RAW	11:06:23	131.26	Sample	OK	1
1707619-03RE1	D6	100	4.19	966.83		72858-1.RAW	11:10:31	828.76	Sample	OK	1
F707533-MS1	D7	400	4.19	46.95	4.85	72859-1.RAW	11:14:40	14.20	Sample	OK	1
SEQ-CCV3	D8	1	4.19	4.95	98.98	72860-1.RAW	11:18:48	426.25	Sample	OK	1
SEQ-CCB3	D9	1	4.19	0.01	0.00	72861-1.RAW	11:22:57	5.42	Sample	OK	1
F707533-MSD1	D10	400	4.19	2181.78		72862-1.RAW	11:27:05	469.38	Sample	OK	1
F707533-MS2	D11	400	4.19	3052.19	139.77	72863-1.RAW	11:31:13	654.96	Sample	OK	1
F707533-MSD2	D12	400	4.19	2964.08		72864-1.RAW	11:35:22	636.18	Sample	OK	1
F708340-BLK1	A1	100	4.19	5.84		72865-1.RAW	11:39:30	9.17	Sample	OK	1
F708340-BLK2	A2	100	4.19	0.00		72866-1.RAW	11:43:39	3.54	Sample	OK	1
F708340-BLK3	A3	100	4.19	2.90		72867-1.RAW	11:47:47	6.66	Sample	OK	1
F708340-BS1	A4	400	4.19	1896.47		72868-1.RAW	11:51:56	408.55	Sample	OK	1
F708340-BSD1	A5	400	4.19	1943.93		72869-1.RAW	11:56:04	418.66	Sample	OK	1
F708340-BS2	A6	400	4.19	1828.15		72870-1.RAW	12:00:12	393.98	Sample	OK	1
F708340-BSD2	A7	400	4.19	1827.26		72871-1.RAW	12:04:21	393.79	Sample	OK	1
SEQ-CCV4	A8	1	4.19	4.85	97.05	72872-1.RAW	12:08:29	418.04	Sample	OK	1
SEQ-CCB4	A9	1	4.19	0.02	0.00	72873-1.RAW	12:12:38	5.55	Sample	OK	1
1708206-01	A10	100	4.19	0.88		72874-1.RAW	12:16:46	4.94	Sample	OK	1
F707533-MS3	A11	10	4.19	35.29	910.33	72875-1.RAW	12:20:54	305.20	Sample	OK	1
F707533-MSD3	A12	400	4.19	2233.08		72876-1.RAW	12:25:03	480.32	Sample	OK	1
F708299-BLK1	B1	20	4.19	0.73		72877-1.RAW	12:29:11	7.28	Sample	OK	1
F708299-BLK2	B2	20	4.19	0.54		72878-1.RAW	12:33:20	6.49	Sample	OK	1
F708299-BLK3	B3	20	4.19	0.54		72879-1.RAW	12:37:28	6.48	Sample	OK	1
*F708299-BLK4	B4	20	4.19	0.69		72880-1.RAW	12:41:37	7.12	Sample	OK	1
*F708299-BLK5	B5	20	4.19	0.59		72881-1.RAW	12:45:45	6.69	Sample	OK	1
F708299-BS1	B6	20	4.19	100.03		72882-1.RAW	12:49:53	430.76	Sample	OK	1
F708299-BSD1	B7	20	4.19	100.30		72883-1.RAW	12:54:02	431.89	Sample	OK	1
SEQ-CCV5	B8	1	4.19	5.00	100.01	72884-1.RAW	12:58:10	430.66	Sample	OK	1
SEQ-CCB5	B9	1	4.19	0.00	0.00	72885-1.RAW	13:02:19	2.72	Sample	OK	1
F708299-BS2	B10	400	4.19	2205.19		72886-1.RAW	13:06:28	474.37	Sample	OK	1
1708119-01	B11	400	4.19	448.92		72887-1.RAW	13:10:36	100.12	Sample	OK	1
1708119-02	B12	400	4.19	429.51		72888-1.RAW	13:14:45	95.77	Sample	OK	1
1708119-03	C1	400	4.19	635.87		72889-1.RAW	13:18:54	139.77	Sample	OK	1
1708119-04	C2	400	4.19	389.53		72890-1.RAW	13:23:02	87.24	Sample	OK	1
1708119-05	C3	100	4.19	333.34		72891-1.RAW	13:28:31	288.48	Sample	OK	1
1708119-06	C4	100	4.19	663.42		72892-1.RAW	13:32:39	570.00	Sample	OK	1
1708119-07	C5	100	4.19	436.59		72893-1.RAW	13:36:48	376.54	Sample	OK	1
1708119-08	C6	100	4.19	267.67		72894-1.RAW	13:40:56	232.48	Sample	OK	1
1708119-09	C7	100	4.19	168.09		72895-1.RAW	13:45:05	147.55	Sample	OK	1
SEQ-CCV6	C8	1	4.19	4.95	98.98	72896-1.RAW	13:49:13	426.25	Sample	OK	1
SEQ-CCB6	C9	1	4.19	0.00	0.00	72897-1.RAW	13:53:22	3.52	Sample	OK	1
1708119-10	C10	100	4.19	181.85		72898-1.RAW	13:57:30	159.28	Sample	OK	1
1708119-01RE1	C11	100	4.19	465.49		72899-1.RAW	14:05:57	401.19	Sample	OK	1
1708119-02RE1	C12	100	4.19	442.96		72900-1.RAW	14:10:06	381.98	Sample	OK	1
1708119-03RE1	D1	100	4.19	622.57		72901-1.RAW	14:14:14	535.16	Sample	OK	1

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1708119-04RE1	D2	100	4.19	402.63		72902-1.RAW	14:18:22	347.57	Sample	OK	1
F708299-DUP1	D3	100	4.19	508.46		72903-1.RAW	14:22:31	437.83	Sample	OK	1
F708299-MS1	D4	400	4.19	5238.04	1028.16	72904-1.RAW	14:26:39	1121.03	Sample	OK	1
F708299-MSD1	D5	400	4.19	5107.10		72905-1.RAW	14:30:48	1093.11	Sample	OK	1
SEQ-CCV7	D6	1	4.19	5.04	100.76	72906-1.RAW	14:40:50	433.88	Sample	OK	1
SEQ-CCB7	D7	1	4.19	0.03	0.00	72907-1.RAW	14:44:59	6.66	Sample	OK	1

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ANALYSIS SEQUENCE

7H10019

QUALITY ASSURANCE
PEER-REVIEWED



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: PR 8/12/17 Analyzed: 8/9/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H10019-IBL1 ✓	QC	1			
7H10019-IBL2 ✓	QC	2			
7H10019-IBL3 ✓	QC	3			
7H10019-CAL1 ✓	QC	4	1704505 ✓		
7H10019-CAL2 ✓	QC	5	1704506 ✓		
7H10019-CAL3 ✓	QC	6	1704507 ✓		
7H10019-CAL4 ✓	QC	7	1704508 ✓		
7H10019-CAL5 ✓	QC	8	1704509 ✓		
7H10019-ICV1 ✓	QC	9	1703679 ✓		
7H10019-CCV1 ✓	QC	10	1703679 ✓		
7H10019-CCB1 ✓	QC	11			
7H10019-CCV2 ✓	QC	12	1703679 ✓		
7H10019-CCB2 ✓	QC	13			
7H10019-CCV3 ✓	QC	14	1703679 ✓		
7H10019-CCB3 ✓	QC	15			
7H10019-CCV4 ✓	QC	16	1703679 ✓		
7H10019-CCB4 ✓	QC	17			
F708299-BLK1 ✓	QC	18			
F708299-BLK2 ✓	QC	19			
F708299-BLK3 ✓	QC	20			
F708299-BLK4 ✓	QC	21			
F708299-BLK5 ✓	QC	22			
F708299-BS1 ✓	QC	23			
F708299-BSD1 ✓	QC	24			
7H10019-CCV5 ✓	QC	25	1703679 ✓		
7H10019-CCB5 ✓	QC	26			
F708299-BS2 ✓	QC	27			
1708119-01 ✓	Hg-CVAFS-T-7030	28			
1708119-02 ✓	Hg-CVAFS-T-7030	29			
1708119-03 ✓	Hg-CVAFS-T-7030	30			
1708119-04 ✓	Hg-CVAFS-T-7030	31			
1708119-05 ✓	Hg-CVAFS-T-7030	32			
1708119-06 ✓	Hg-CVAFS-T-7030	33			
1708119-07 ✓	Hg-CVAFS-T-7030	34			
1708119-08 ✓	Hg-CVAFS-T-7030	35			

Due Date: 8/31/2017

PREPARATION BENCH SHEET

F708299

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708299-BLK1	Blank	0.25	20					
F708299-BLK2	Blank	0.25	20					
F708299-BLK3	Blank	0.25	20					
F708299-BLK4	Homog. Pre-Blank	0.2626	20					
F708299-BLK5	Homog. Post-Blank	0.2793	20					
F708299-BS1	LCS	0.25	20	1704421	20			
F708299-BS2	DORM-4	0.1306	20	1703305	130.6			
F708299-BSD1	LCS Dup	0.25	20	1704421	20			
F708299-DUP1	Duplicate [1708119-01]	0.2836	20					
F708299-MS1	Matrix Spike [1708119-01]	0.2591	20	1701763	100			
F708299-MSD1	Matrix Spike Dup [1708119-01]	0.2508	20	1701763	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703305	DORM-4	29-May-20 00:00	1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1703702	THg Dilute 1% BrCl	
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704524	70/30 Digestion Acid	22-Jan-18 00:00
			1704691	3% SnCl2 THg reductant	
			1704740	5% BrCl	18-Dec-17 00:00

PREPARATION BENCH SHEET

F708299

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708119-01	ES-03_17HC001_072717_POL_01_WB	0.259	20	QC	-	-	MS/MSD	
1708119-01RE1	ES-03_17HC001_072717_POL_01_WB	0.259	20	QC	-	-	MS/MSD Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708119-02	ES-03_17HC001_072717_POL_02_WB	0.2979	20	-	-	-		
1708119-02RE1	ES-03_17HC001_072717_POL_02_WB	0.2979	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708119-03	ES-03_17HC001_072717_POL_03_WB	0.259	20	-	-	-		
1708119-03RE1	ES-03_17HC001_072717_POL_03_WB	0.259	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708119-04	ES-03_17HC001_072717_POL_04_WB	0.289	20	-	-	-		
1708119-04RE1	ES-03_17HC001_072717_POL_04_WB	0.289	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708119-05	ES-03_17HC001_072717_POL_05_WB	0.2969	20	-	-	-		
1708119-06	ES-13_17HC001_072517_POL_01_WB	0.2873	20	QC	-	-	MS/MSD	
1708119-07	ES-13_17HC001_072517_POL_02_WB	0.3115	20	-	-	-		
1708119-08	ES-13_17HC001_072517_POL_03_WB	0.2745	20	-	-	-		
1708119-09	ES-13_17HC001_072517_POL_04_WB	0.2573	20	-	-	-		
1708119-10	ES-13_17HC001_072517_POL_05_WB	0.267	20	-	-	-		

Work Order

Client

Project

1708119

AMEC Foster Wheeler

2017 Penobscot Biota

Due Date: 8/31/2017

PREPARATION BENCH SHEET

F708299

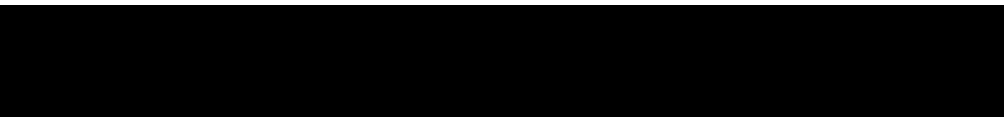
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708119-01	ES-03_17HC001_072717_POL_01_WB	0.259	20	-	-	-		
1708119-01RE1	ES-03_17HC001_072717_POL_01_WB	0.259	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708119-02	ES-03_17HC001_072717_POL_02_WB	0.2979	20	-	-	-		
1708119-02RE1	ES-03_17HC001_072717_POL_02_WB	0.2979	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708119-03	ES-03_17HC001_072717_POL_03_WB	0.259	20	-	-	-		
1708119-03RE1	ES-03_17HC001_072717_POL_03_WB	0.259	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708119-04	ES-03_17HC001_072717_POL_04_WB	0.289	20	-	-	-		
1708119-04RE1	ES-03_17HC001_072717_POL_04_WB	0.289	20	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1708119-05	ES-03_17HC001_072717_POL_05_WB	0.2969	20	-	-	-		
1708119-06	ES-13_17HC001_072517_POL_01_WB	0.2873	20	-	-	-		
1708119-07	ES-13_17HC001_072517_POL_02_WB	0.3115	20	-	-	-		
1708119-08	ES-13_17HC001_072517_POL_03_WB	0.2745	20	-	-	-		
1708119-09	ES-13_17HC001_072517_POL_04_WB	0.2573	20	-	-	-		
1708119-10	ES-13_17HC001_072517_POL_05_WB	0.267	20	-	-	-		



PREPARATION BENCH SHEET

D/18/17 Bc
2600-3

F708299

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708299-BLK1	Blank	0.25	20					20X
F708299-BLK2	Blank	0.25	20					20X
F708299-BLK3	Blank	0.25	20					20X
F708299-BLK4	Homog. Pre-Blank	0.2626	20					20X
F708299-BLK5	Homog. Post-Blank	0.2793	20					20X
F708299-BS1	LCS	0.2508	20	1704421	20			20X
F708299-BS2	LCS	0.1306	20					400X
F708299-BSD1	LCS Dup	0.2774	20	1704421	20			20X
F708299-DUP1	Duplicate [1708119-01]	0.2836	20					100X
F708299-MS1	Matrix Spike [1708119-01]	0.2591	20	1701763	100			400X
F708299-MSD1	Matrix Spike Dup [1708119-01]	0.2508	20	1701763	100			400X

Standard ID(s):
1701763
1704421

Description:
THg 1,000ng/mL Secondary Spiking Standard
THg 100ng/mL Primary Spiking Standard

Expiration:
22-Sep-17 00:00
21-Oct-17 00:00

Reagent ID(s):
1704424
1704524
1704740

Description:
Boiling Chips for AFS prep
70/30 Digestion Acid
5% BrCl

Expiration:
21-Jan-18 00:00
22-Jan-18 00:00
18-Dec-17 00:00

1704691
1703701
1703702
1703182

PREPARATION BENCH SHEET

8/4/17 BC
2600-3

F708299

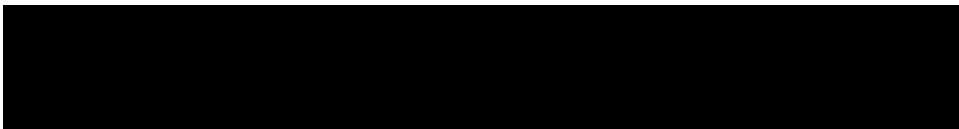
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708119-01	ES-03_17HC001_072717_POL_01_WB	0.259	20	-	-	-	400X → 100X	
1708119-02	ES-03_17HC001_072717_POL_02_WB	0.2979	20	-	-	-	400X → 100X	
1708119-03	ES-03_17HC001_072717_POL_03_WB	0.259	20	-	-	-	400X → 100X	
1708119-04	ES-03_17HC001_072717_POL_04_WB	0.289	20	-	-	-	400X → 100X	
1708119-05	ES-03_17HC001_072717_POL_05_WB	0.2969	20	-	-	-	100X	
1708119-06	ES-13_17HC001_072517_POL_01_WB	0.2873	20	-	-	-	100X	
1708119-07	ES-13_17HC001_072517_POL_02_WB	0.3115	20	-	-	-	100X	
1708119-08	ES-13_17HC001_072517_POL_03_WB	0.2745	20	-	-	-	100X	
1708119-09	ES-13_17HC001_072517_POL_04_WB	0.2573	20	-	-	-	100X	
1708119-10	ES-13_17HC001_072517_POL_05_WB	0.267	20	-	-	-	100X	



Technician: WF Batch#: F708299 Date: 8/4/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No
 *Time in: 11:00 Actual Temp. (raw): 76.0 °C w/ CF: 76.0 °C
 Time out: 13:00 Actual Temp. (raw): 80.0 °C w/ CF: 80.0 °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1704740) Spike vol.: 100 µL (LIMS ID: 1701763)
 Spike Witness: DM 8/7/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 8/2/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1704924 Dispenser #: 02W27444 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Calibrated? Yes
 Glass Vial # 000 68424 Boiling Chip lot # 1704424 *Hotblock Position: K4

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F708299 - Blk1	0.2562	23			BS2 = DORM-4
2	F708299 - Blk2	0.2525	24			LIMS = 1707305
3	F708299 - Blk3	0.2600	25			
4	F708299 - Blk4	0.2626	26			Comments
5	F708299 - Blk5	0.2793	27			F708299 DUP1,
6	F708299 - BS1	0.2508	28			MST, MSD1
7	F708299 - BSD1	0.2774	29			SOURCE = 1708119-01
8	1708119 - 01	0.2590	30			F708299 - Blk3
9	F708299 - DUP1	0.2836	31			- Blk 4 WF 8/4/17
10	F708299 - MST	0.2591	32			is homogenization
11	F708299 - MSD1	0.2508	33			"Pre" blank.
12	1708119 - 02	0.2979	34			F708299 - Blk5
13	1708119 - 03	0.2590	35			is homogenization
14	1708119 - 04	0.2890	36			"Post" blank.
15	1708119 - 05	0.2969	37			
16	1708119 - 06	0.2873	38			BS1/BSD1 spiked
17	1708119 - 07	0.3115	39			w/ 20 mL of 100ug/mL
18	1708119 - 08	0.2745	40			LIMS = 1704421
19	1708119 - 09	0.2573	41			WF 8/7/17
20	1708119 - 10	0.2670	42			
21	F708299 - BS2	0.1306	43			
22	F708299	WF	44			

Failing Data Report - 7H10019

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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B. C. S. 8/10/17
Analyst Reviewed By Date

P. M. 8/12/17
Peer Reviewed By Date

7H10018

PEER-REVIEWED



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *R* 8/10/17 Analyzed: 8/9/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H10018-IBL1 ✓	QC	1			
7H10018-IBL2 ✓	QC	2			
7H10018-IBL3 ✓	QC	3			
7H10018-CAL1 ✓	QC	4	1704505 ✓		
7H10018-CAL2 ✓	QC	5	1704506 ✓		
7H10018-CAL3 ✓	QC	6	1704507 ✓		
7H10018-CAL4 ✓	QC	7	1704508 ✓		
7H10018-CAL5 ✓	QC	8	1704509 ✓		
7H10018-ICV1 ✓	QC	9	1703679 ✓		
7H10018-CCV1 ✓	QC	10	1703679 ✓		
7H10018-CCB1 ✓	QC	11			
7H10018-CCV2 ✓	QC	12	1703679 ✓		
7H10018-CCB2 ✓	QC	13			
7H10018-CCV3 ✓	QC	14	1703679 ✓		
7H10018-CCB3 ✓	QC	15			
F708340-BLK1 ✓	QC	16			
F708340-BLK2 ✓	QC	17			
F708340-BLK3 ✓	QC	18			
F708340-BS1 ✓	QC	19			
F708340-BSD1 ✓	QC	20			
F708340-BS2 ✓	QC	21			
F708340-BSD2 ✓	QC	22			
7H10018-CCV4 ✓	QC	23	1703679 ✓		
7H10018-CCB4 ✓	QC	24			
1708206-01 ✓	Hg_FSTM_TRAP_A	25			
7H10018-CCV5 ✓	QC	26	1703679 ✓		
7H10018-CCB5 ✓	QC	27			

Preed 8/10/17
 Samples Loaded By _____ Date _____

Preed 8/10/17
 Data Processed By _____ Date _____

*10nd ed
8/9/17*

PREPARATION BENCH SHEET

F708340

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/8/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708340-BLK1	Blank	1	100					
F708340-BLK2	Blank	1	100					
F708340-BLK3	Blank	1	100					
F708340-BS1	LCS	1	100	1701763	200			
F708340-BS2	LCS	1	100	1701763	200			
F708340-BSD1	LCS Dup	1	100	1701763	200			
F708340-BSD2	LCS Dup	1	100	1701763	200			

<u>Standard ID(s):</u> 1701763	<u>Description:</u> THg 1,000ng/mL Secondary Spiking Standard	<u>Expiration:</u> 22-Sep-17 00:00	<u>Reagent ID(s):</u> 1702565	<u>Description:</u> FSTM Lot 170426B	<u>Expiration:</u> 26-Apr-18 00:00
			1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
			1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1704524	70/30 Digestion Acid	22-Jan-18 00:00
			1704691	3% SnCl2 THg reductant	
			1704740	5% BrCl	18-Dec-17 00:00
			1704814	70/30 Digestion Acid	04-Feb-18 00:00

PREPARATION BENCH SHEET

F708340

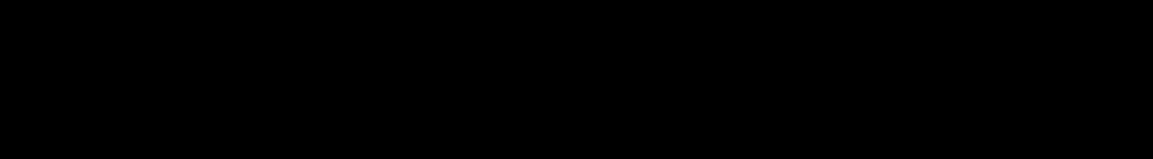
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/8/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708206-01	BC Trap Prep DOC	1	100	-	-	-		



PREPARATION BENCH SHEET

8/9/17 BC

2600-3

F708340

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/8/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708340-BLK1	Blank	1	100					100x
F708340-BLK2	Blank	1	100					100x
F708340-BLK3	Blank	1	100					100x
F708340-BS1	LCS	1	100	1701763	200			400x
F708340-BS2	LCS	1	100	1701763	200			400x
F708340-BSD1	LCS Dup	1	100	1701763	200			400x
F708340-BSD2	LCS Dup	1	100	1701763	200			400x

Standard ID(s): 1701763
Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration: 22-Sep-17 00:00

Reagent ID(s): 1702565
 1704524
 1704740
 1704814

Description: FSTM Lot 170426B
 70/30 Digestion Acid
 5% BrCl
 70/30 Digestion Acid

Expiration: 26-Apr-18 00:00
 22-Jan-18 00:00
 18-Dec-17 00:00
 04-Feb-18 00:00

1704691
 1703701
 1703702
 1703182

PREPARATION BENCH SHEET

8/9/17 BC
2600-3

F708340

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/8/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708206-01	BC Trap Prep DOC	1	100	-	-	-	100X	



ANALYSIS SEQUENCE

7H10017

QUALITY ASSURANCE
PEER-REVIEWED

Instrument: Hg2600-3 ✓

Calibration ID: UNASSIGNED

INITIALS:
Analyzed: 8/9/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H10017-IBL1 ✓	QC	1			
7H10017-IBL2 ✓	QC	2			
7H10017-IBL3 ✓	QC	3			
7H10017-CAL1 ✓	QC	4	1704505 ✓		
7H10017-CAL2 ✓	QC	5	1704506 ✓		
7H10017-CAL3 ✓	QC	6	1704507 ✓		
7H10017-CAL4 ✓	QC	7	1704508 ✓		
7H10017-CAL5 ✓	QC	8	1704509 ✓		
7H10017-ICV1 ✓	QC	9	1703679 ✓		
F707533-BLK1 ✓	QC	10			
F707533-BLK2 ✓	QC	11			
F707533-BS1 ✓	QC	12			
F707533-BSD1 ✓	QC	13			
F707533-BS2 ✓	QC	14			
F707533-BSD2 ✓	QC	15			
1707617-21 ✓	Hg-CVAFS-S-7474	16			
1707617-22 ✓	Hg-CVAFS-S-7474	17			
1707617-23 ✓	Hg-CVAFS-S-7474	18			
1707617-24 ✓	Hg-CVAFS-S-7474	19			
7H10017-CCV1 ✓	QC	20	1703679 ✓		
7H10017-CCB1 ✓	QC	21			
1707617-25 ✓	Hg-CVAFS-S-7474	22			
1707617-26 ✓	Hg-CVAFS-S-7474	23			
1707617-27 ✓	Hg-CVAFS-S-7474	24			
1707617-28 ✓	Hg-CVAFS-S-7474	25			
1707619-01 ✓	Hg-CVAFS-S-7474	26			
1707619-02 ✓	Hg-CVAFS-S-7474	27			
1707619-03 ✓	Hg-CVAFS-S-7474	28			
1707619-04 ✓	Hg-CVAFS-S-7474	29			
1707619-05 ✓	Hg-CVAFS-S-7474	30			
1707619-06 ✓	Hg-CVAFS-S-7474	31			
7H10017-CCV2 ✓	QC	32	1703679 ✓		
7H10017-CCB2 ✓	QC	33			
1707619-07 ✓	Hg-CVAFS-S-7474	34			
1707619-08 ✓	Hg-CVAFS-S-7474	35			

Due Date: 8/21/2017

PREPARATION BENCH SHEET

F707533

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/8/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707533-BLK1	Blank	0.5	200					
F707533-BLK2	Blank	0.5	200					
F707533-BS1	Blank Spike	0.5	200	1701763	40			
F707533-BS2	LCS	0.5	200	1701763	40			
F707533-BSD1	Blank Spike	0.5	200	1701763	40			
F707533-BSD2	LCS Dup	0.5	200	1701763	40			
F707533-MS1	Matrix Spike [1707617-28]	0.552	200	1703591	50			
F707533-MS2	Matrix Spike [1707619-01]	0.513	200	1703591	50			
F707533-MS3	Matrix Spike [1707617-28]	0.552	200	1703591	50			
F707533-MSD1	Matrix Spike Dup [1707617-28]	0.5263	200	1703591	50			
F707533-MSD2	Matrix Spike Dup [1707619-01]	0.5572	200	1703591	50			
F707533-MSD3	Matrix Spike Dup [1707617-28]	0.5263	200	1703591	50			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703591	THg 10,000ng/mL Primary Spiking Standard	14-Dec-17 00:00	1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1703831	Omnitrace Hydrochloric Acid	26-Jun-20 00:00
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00
			1704691	3% SnCl ₂ THg reductant	22-Jan-18 00:00
			1704812	7474 Potassium Bromate/Bromide Reagent	15-Aug-17 00:00

PREPARATION BENCH SHEET

F707533

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/8/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707617-21	MMSW-C_N_071917_SED_03-05	0.5172	200	-	-	-		
1707617-22	MMSW-C_N_071917_SED_05-10	0.5396	200	-	-	-		
1707617-23	W-17-NE_071917_SED_03-05	0.5208	200	-	-	-		
1707617-24	W-17-NE_071917_SED_05-10	0.5847	200	-	-	-		
1707617-25	MMSE-1_S1_071917_SED_03-05	0.5238	200	-	-	-		
1707617-25RE1	MMSE-1_S1_071917_SED_03-05	0.5238	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707617-26	MMSE-1_S1_071917_SED_05-10	0.5359	200	-	-	-		
1707617-26RE1	MMSE-1_S1_071917_SED_05-10	0.5359	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707617-27	MMSE-1_S2_071917_SED_03-05	0.5545	200	-	-	-		
1707617-28	MMSE-1_S2_071917_SED_05-10	0.5259	200	QC	-	-	MS/MSD	
1707619-01	W-17-Low_071817_SED_00-01	0.5886	200	QC	-	-	MS/MSD	
1707619-02	W-17-Mid_071817_SED_00-01	0.5967	200	-	-	-		
1707619-03	W-21-UM-Central-C_071817_SED_00-01	0.5312	200	-	-	-		
1707619-03RE1	W-21-UM-Central-C_071817_SED_00-01	0.5312	200	-	-	-	Added 8/10/2017 by BC	Added 8/10/2017 by BC
1707619-04	W-63-High_071817_SED_00-01	0.5243	200	-	-	-		
1707619-05	W-63-Mid_071817_SED_00-01	0.5257	200	-	-	-		
1707619-06	W-65-High_071817_SED_00-01	0.5458	200	-	-	-		
1707619-07	W-65-Low_071817_SED_00-01	0.5341	200	-	-	-		
1707619-08	W-65-Mid_071817_SED_00-01	0.5643	200	-	-	-		

PREPARATION BENCH SHEET

F707533

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 8/8/2017

1707619-09	W-17-Low_071817_SED_01-03	0.5138	200	-	-	-		
1707619-10	W-17-Mid_071817_SED_01-03	0.5501	200	-	-	-		
1707619-12	W-63-High_071817_SED_01-03	0.5323	200	-	-	-		
1707619-13	W-63-Mid_071817_SED_01-03	0.5223	200	-	-	-		

8/19/17 BC
2600-3

PREPARATION BENCH SHEET

F707533

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 7/28/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707533-BLK1	Blank	0.5	200					10X
F707533-BLK2	Blank	0.5	200					10X
F707533-BS1	LCS	0.5	200					400X 400X
F707533-BSD1	LCS Dup	0.5	200					400X 400X
F707533-MS1	Matrix Spike [1707617-28]	0.5	200					400X
F707533-MS2	Matrix Spike [1707619-01]	0.5	200					400X
F707533-MSD1	Matrix Spike Dup [1707617-28]	0.5	200					400X
F707533-MSD2	Matrix Spike Dup [1707619-01]	0.5	200					400X

Standard ID(s): Description:

Expiration:

BS2 rerun BS1 100X

BSD2 rerun BSD1 100X

MS3 rerun of MS1 10X

MSD3 rerun of MSD1 400X

1704691
1703701
1703702
1703182

PREPARATION BENCH SHEET

8/9/17 BC
2600-3

F707533

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 7/28/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707617-21	MMSW-C_N_071917_SED_03-05	0.5	200	-	-	-	100X.	
1707617-22	MMSW-C_N_071917_SED_05-10	0.5	200	-	-	-	100X.	
1707617-23	W-17-NE_071917_SED_03-05	0.5	200	-	-	-	100X.	
1707617-24	W-17-NE_071917_SED_05-10	0.5	200	-	-	-	100X.	
1707617-25	MMSE-1_S1_071917_SED_03-05	0.5	200	-	-	-	100X. → 10X.	
1707617-26	MMSE-1_S1_071917_SED_05-10	0.5	200	-	-	-	100X. → 10X.	
1707617-27	MMSE-1_S2_071917_SED_03-05	0.5	200	-	-	-	100X.	
1707617-28	MMSE-1_S2_071917_SED_05-10	0.5	200	QC	-	-	MS/MSD 100X.	
1707619-01	W-17-Low_071817_SED_00-01	0.5	200	QC	-	-	MS/MSD 100X.	
1707619-02	W-17-Mid_071817_SED_00-01	0.5	200	-	-	-	100X.	
1707619-03	W-21-UM-Central-C_071817_SED_00-01	0.5	200	-	-	-	100X. → 10X.	
1707619-04	W-63-High_071817_SED_00-01	0.5	200	-	-	-	100X.	
1707619-05	W-63-Mid_071817_SED_00-01	0.5	200	-	-	-	100X.	
1707619-06	W-65-High_071817_SED_00-01	0.5	200	-	-	-	100X.	
1707619-07	W-65-Low_071817_SED_00-01	0.5	200	-	-	-	100X.	
1707619-08	W-65-Mid_071817_SED_00-01	0.5	200	-	-	-	100X.	
1707619-09	W-17-Low_071817_SED_01-03	0.5	200	-	-	-	100X.	
1707619-10	W-17-Mid_071817_SED_01-03	0.5	200	-	-	-	100X.	
1707619-12	W-63-High_071817_SED_01-03	0.5	200	-	-	-	100X.	

Due Date: 8/21/2017

PREPARATION BENCH SHEET

8/9/17 BL
2600-3

F707533

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EPA 7474

Prepared: 7/28/2017

1707619-13	W-63-Mid_071817_SED_01-03	0.5	200	-	-	-	100x	
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Technician: Duyen Batch#: F707533 Date: 8/8/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: EPA 7474 Vial Type: Glass Teflon
 Balance#: 19 Calibrated? Yes No Therm.#: N/A Calibrated? Yes No
 *Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C
 *Time in can't begin before target temperature is reached


Final vol.: 25 mL (LIMS ID: R0420) Spike vol.: 40 µL (LIMS ID: 1707363)
 Spike Witness: IC 8/8/17 (initial and date) BS/BSJ 1707963 8/8/17
10000 µg/mL

HCl LIMS ID: 1703831 Pipette SN#: 0U07853 Calibration Date: 8/2/17
 HNO₃ LIMS ID: 1704484 Pipette SN#: NW07693 Calibration Date: 8/2/17
 70/30 LIMS ID: N/A Dispenser #: 09N45351 Calibrated? Yes No
 Other Acid LIMS ID: 1704812 7474 Dispenser #: 08Y2292 Yes
 Glass vial # 7264713-3025 Boiling Chip lot # 1704424 *Hotblock Position: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F707533 Rk1	0.5631	28	1707619-09	0.5138	
2	F707533 Rk2	0.5140	29	1707619-10	0.5501	
3	F707533 BS1	0.5096	30	1707619-11	0.5323	
4	F707533 BS1	0.5321	31	1707619-12	0.5223	
5	1707617-21A	0.5172	32	F707533-M102	0.5130	Comments F707533 source MS1 MS01 1707617-28 F707533 MS2 MS02 1707619-01 ALL MS1 MS01 spike w/ source of 10,000 µg/mL LIMS: 1703591 8/8/17
6	1707617-22A	0.5396	33	F707533-M102	0.5572	
7	1707617-23A	0.5208	34			
8	1707617-24A	0.5847	35			
9	1707617-25A	0.5238	36			
10	1707617-26A	0.5359	37			
11	1707617-27	0.5545	38			
12	1707617-28	0.5259	39			
13	F707533-MS1	0.5520	40			
14	F707533-MS01	0.5263	41			
15	1707619-01	0.5886	42			
16	1707619-02	0.5967	43			
17	1707619-03	0.5312	44			
18	1707619-04	0.5243				
19	1707619-05	0.5257				
20	1707619-06	0.5458				
21	1707619-07	0.5341				
22	1707619-08	0.5643				

Failing Data Report - 7H10017

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707533-MS1	Hg-CVAFS-S-7474	16.89	145		735.4	907.61	ng/g	-81.0	71.00	125.00			PASS-OVER	FAIL-MS	
F707533-MSD1	Hg-CVAFS-S-7474	829.0	152	16.89	735.4	951.93	ng/g	9.82	71.00	125.00	-255	24.00	PASS-OVER	FAIL-MSD (Rec.)	Re Prod ✓
F707533-MS3	Hg-CVAFS-S-7474	12.65	3.62		735.4	907.61	ng/g	-79.6	71.00	125.00			PASS-OVER	FAIL-MS	Batch ✓
F707533-MSD3	Hg-CVAFS-S-7474	848.5	152	12.65	735.4	951.93	ng/g	11.9	71.00	125.00	-270	24.00	PASS-OVER	FAIL-MSD (Rec.)	↓



 Analyst Reviewed By _____ Date 8/10/17



 Peer Reviewed By _____ Date 8/10/17

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7H10017, 7H10018, 7H10019
Reviewer: <u>RL 8/10/12</u>	Dataset ID(s): THg26003-170809-1
Date: 8/10/2017	WO (s) #: VARIOUS
Batch #(s): F707533, F708340, F708299	

• Select the correct preparation method.

Analyte	Prep Method	FSTM Trap	Matrix
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg0	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: BC **Reviewer Initials:** RL 8/10/12

- | | | | |
|---|---|--|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> |
| Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | | | |
| (b) Check 5% of transcription from Instrument print-out and Excel file | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | | | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A |
| 50 ml / aliquot = Excel dilution value | | | |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7H10017, 7H10018, 7H10019
Reviewer:	0 <i>A. B. 8/10/17</i>	Dataset ID(s):	THg26003-170809-1
Date:	8/10/2017	WO (s) #:	VARIOUS
Batch #(s):	F707533, F708340, F708299		0

Analyst Initials BC Reviewer Initials A. B. 8/10/17

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF ($\leq 15\%$) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: <u>MS1 appears to have been switched with a sample during prep, batch will be repped</u> | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7H10017, 7H10018, 7H10019
Reviewer:	0 <i>PL 8/10/17</i>	Dataset ID(s):	THg26003-170809-1
Date:	8/10/2017	WO (s) #:	VARIOUS
Batch #(s):	F707533, F708340, F708299		0

Analyst Initials *BC* Reviewer Initials *PL 8/10/17*

- 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? YES NO
 Comments: _____
 - 21. Are all samples within instrument calibration range? (or at minimum dilution size) PASS FAIL
 Comments: _____
 - 22. Are the samples run at the correct dilution level for the method? YES NO
 Comments: _____
 - 23. Dissolved < Total (if applicable) YES NO N/A
 Comments: _____
 - 24. Effluent < Influent (visually confirm if needed) YES NO N/A
 Comments: _____
 - 25. Are re-runs noted with reason? YES NO N/A
 Comments: _____
 - 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? YES NO N/A
 Comments: _____
 - 27. Is the B trap <5% A Traps YES NO N/A
 Comments: _____
 - 28. Are spiked trap recoveries 75-125% of true value? YES NO N/A
 Comments: _____
 - 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
 Comments: _____
 - 30. Have re-extracts been created for non-reportable samples? YES NO N/A
 - 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. YES NO N/A
 - 32. Does the data set need scanning? YES N/A
 - 33. Does the dataset have an LOQ/LOQ or DOC? YES N/A
 - 34. Water samples: has the preservation log been included in dataset for final volume verification? YES NO N/A
 - 35. Water samples-is the final volume correct in the sequence? YES NO N/A
- Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\IDOCs**
- 36. Date of analyst IDOC/CDOC: 1/11/17, 1/27/17 IDOC/CDOC within last 12 months? YES NO
 - 37. Date of analyst's SOP reading for method: 5/20/17 Current SOP revision read? YES NO
 - 38. Date of LOD: 4/26/17, 5/9/17 LOD within last 3 months? YES NO
 - 39. Date of LOQ: 4/26/17, 5/9/17 LOQ within last 3 months? YES NO

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.



Frontier Global Sciences

Analysis Datasheet for Total Mercury

Date of Analysis: August 24, 2017
 Instrument #: Hg2600-2
 LIMS Sequence #: 7H25009, 7H25010

Analyst: BC
 Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	91.23 units	182.46	84.59 units	169.19	105.4 %Rec
SEQ-CAL2	1	1.00 ng/L	168.31 units	168.31	161.67 units	161.67	100.7 %Rec
SEQ-CAL3	1	5.00 ng/L	785.97 units	157.19	779.33 units	155.87	97.1 %Rec
SEQ-CAL4	1	20.00 ng/L	3183.40 units	159.17	3176.76 units	158.84	99.0 %Rec
SEQ-CAL5	1	40.00 ng/L	6288.11 units	157.20	6281.47 units	157.04	97.8 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF Corr. St Dev RF Corr. RSD CF Uncorr. Mean RF
 160.52 +/- 5.32 3.3% RSD 164.87

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.64 units	±2.75	0.04 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.626 ng/L	±0.345
BLK	2	3	10.919 ng/L	±3.029
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER-REVIEWED

INITIALS: BC 8/25/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB				Comments		
		Type	LabNumber							Correction?	RESP	InitialResult	FinalResult		InitialUnits	
Hg2600-2	BC	CAL	SEQ-IBL1	1	8/24/2017 8:21:52	83821-1.RAW	8:21:52 AM	9.16				2.5	0.016	0.016	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	8/24/2017 8:26:00	83822-1.RAW	8:26:00 AM	3.71				-2.9	-0.018	-0.018	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	8/24/2017 8:30:09	83823-1.RAW	8:30:09 AM	7.04				0.4	0.003	0.003	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	8/24/2017 8:34:17	83824-1.RAW	8:34:17 AM	91.23				84.6	0.527	0.527	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	8/24/2017 8:38:26	83825-1.RAW	8:38:26 AM	168.31				161.7	1.007	1.007	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	8/24/2017 8:42:34	83826-1.RAW	8:42:34 AM	785.97				779.3	4.855	4.855	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	8/24/2017 8:46:43	83827-1.RAW	8:46:43 AM	3183.40				3176.8	19.790	19.790	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	8/24/2017 8:50:51	83828-1.RAW	8:50:51 AM	6288.11				6281.5	39.132	39.132	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	8/24/2017 8:54:59	83829-1.RAW	8:54:59 AM	847.75				841.1	5.240	5.240	ng/L	
Hg2600-2	BC	SAM	ws		8/24/2017 9:13:32	83830-1.RAW	9:13:32 AM	64.78		x		58.1	0.362	0.000	ng/L	
Hg2600-2	BC	BLK	F708455-BLK1	20	8/24/2017 9:17:41	83831-1.RAW	9:17:41 AM	20.68		1		14.0	0.087	1.750	ng/L	
Hg2600-2	BC	BLK	F708455-BLK2	20	8/24/2017 9:21:49	83832-1.RAW	9:21:49 AM	16.55		1		9.9	0.062	1.235	ng/L	
Hg2600-2	BC	BLK	F708455-BLK3	20	8/24/2017 9:25:58	83833-1.RAW	9:25:58 AM	21.82		1		15.2	0.095	1.892	ng/L	
Hg2600-2	BC	SAM	*F708455-BLK4	20	8/24/2017 9:30:06	83834-1.RAW	9:30:06 AM	11.47		1		4.8	-0.051	-1.023	ng/L	
Hg2600-2	BC	SAM	*F708455-BLK5	20	8/24/2017 9:34:14	83835-1.RAW	9:34:14 AM	16.86		1		10.2	-0.018	-0.352	ng/L	
Hg2600-2	BC	SAM	F708455-BS1	20	8/24/2017 9:38:23	83836-1.RAW	9:38:23 AM	840.69		1		834.1	5.115	102.293	ng/L	
Hg2600-2	BC	SAM	F708455-BSD1	20	8/24/2017 9:42:31	83837-1.RAW	9:42:31 AM	778.85		1		772.2	4.729	94.588	ng/L	
Hg2600-2	BC	SAM	F708455-BS2	400	8/24/2017 9:46:40	83838-1.RAW	9:46:40 AM	912.76		1		906.1	5.641	2256.340	ng/L	
Hg2600-2	BC	SAM	1708371-04	400	8/24/2017 9:50:48	83839-1.RAW	9:50:48 AM	1005.91		1		999.3	6.221	2488.460	ng/L	
Hg2600-2	BC	SAM	1708119-06RE1	100	8/24/2017 9:54:56	83840-1.RAW	9:54:56 AM	893.61		1		887.0	5.509	550.936	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	8/24/2017 9:59:05	83841-1.RAW	9:59:05 AM	795.41				788.8	4.914	4.914	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	8/24/2017 10:03:13	83842-1.RAW	10:03:13 AM	18.11				11.5	0.071	0.071	ng/L	
Hg2600-2	BC	SAM	1708240-01	100	8/24/2017 10:07:22	83843-1.RAW	10:07:22 AM	1150.74		1		1144.1	7.111	711.121	ng/L	
Hg2600-2	BC	SAM	1708240-02	100	8/24/2017 10:11:30	83844-1.RAW	10:11:30 AM	815.75		1		809.1	5.024	502.431	ng/L	
Hg2600-2	BC	SAM	1708240-03	100	8/24/2017 10:15:39	83845-1.RAW	10:15:39 AM	871.28		1		864.6	5.370	537.025	ng/L	
Hg2600-2	BC	SAM	1708240-04	100	8/24/2017 10:19:47	83846-1.RAW	10:19:47 AM	1225.47		1		1218.8	7.577	757.676	ng/L	
Hg2600-2	BC	SAM	1708240-05	100	8/24/2017 10:23:55	83847-1.RAW	10:23:55 AM	1127.21		1		1120.6	6.965	696.463	ng/L	
Hg2600-2	BC	SAM	1708240-06	100	8/24/2017 10:28:04	83848-1.RAW	10:28:04 AM	846.50		1		839.9	5.216	521.588	ng/L	
Hg2600-2	BC	SAM	1708240-07	100	8/24/2017 10:32:12	83849-1.RAW	10:32:12 AM	1101.06		1		1094.4	6.802	680.172	ng/L	
Hg2600-2	BC	SAM	1708240-08	100	8/24/2017 10:36:21	83850-1.RAW	10:36:21 AM	785.12		1		778.5	4.833	483.349	ng/L	
Hg2600-2	BC	SAM	1708240-09	100	8/24/2017 10:40:29	83851-1.RAW	10:40:29 AM	468.25		1		461.6	2.859	285.948	ng/L	
Hg2600-2	BC	SAM	1708240-10	100	8/24/2017 10:44:37	83852-1.RAW	10:44:37 AM	920.43		1		913.8	5.676	567.644	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	8/24/2017 10:48:46	83853-1.RAW	10:48:46 AM	831.21				824.6	5.137	5.137	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	8/24/2017 10:52:54	83854-1.RAW	10:52:54 AM	24.10				17.5	0.109	0.109	ng/L	
Hg2600-2	BC	SAM	1708240-11	100	8/24/2017 10:57:03	83855-1.RAW	10:57:03 AM	687.81		1		681.2	4.227	422.728	ng/L	
Hg2600-2	BC	SAM	1708240-12	100	8/24/2017 11:01:11	83856-1.RAW	11:01:11 AM	566.44		1		559.8	3.471	347.117	ng/L	
Hg2600-2	BC	SAM	1708240-13	100	8/24/2017 11:05:19	83857-1.RAW	11:05:19 AM	590.08		1		583.4	3.618	361.845	ng/L	
Hg2600-2	BC	SAM	1708240-14	100	8/24/2017 11:09:28	83858-1.RAW	11:09:28 AM	481.96		1		475.3	2.945	294.489	ng/L	
Hg2600-2	BC	SAM	1708240-15	100	8/24/2017 11:13:36	83859-1.RAW	11:13:36 AM	513.12		1		506.5	3.139	313.900	ng/L	
Hg2600-2	BC	SAM	1708371-01	400	8/24/2017 11:17:45	83860-1.RAW	11:17:45 AM	2583.34		1		2576.7	16.048	6419.252	ng/L	
Hg2600-2	BC	SAM	1708371-02	400	8/24/2017 11:21:53	83861-1.RAW	11:21:53 AM	2535.14		1		2528.5	15.748	6299.142	ng/L	
Hg2600-2	BC	SAM	1708371-03	400	8/24/2017 11:26:02	83862-1.RAW	11:26:02 AM	2652.95		1		2646.3	16.482	6592.712	ng/L	
Hg2600-2	BC	SAM	F708455-DUP1	100	8/24/2017 11:30:10	83863-1.RAW	11:30:10 AM	1163.39		1		1156.8	7.190	719.002	ng/L	
Hg2600-2	BC	SAM	F708455-MS1	400	8/24/2017 11:34:18	83864-1.RAW	11:34:18 AM	2124.29		1		2117.7	13.188	5275.347	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	8/24/2017 11:38:27	83865-1.RAW	11:38:27 AM	830.37				823.7	5.132	5.132	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	8/24/2017 11:42:35	83866-1.RAW	11:42:35 AM	35.59				29.0	0.180	0.180	ng/L	
Hg2600-2	BC	SAM	F708455-MSD1	400	8/24/2017 11:46:44	83867-1.RAW	11:46:44 AM	2160.62		1		2154.0	13.415	5365.877	ng/L	
Hg2600-2	BC	SAM	F708455-MS2	400	8/24/2017 11:50:52	83868-1.RAW	11:50:52 AM	2167.86		1		2161.2	13.460	5383.919	ng/L	
Hg2600-2	BC	SAM	F708455-MSD2	400	8/24/2017 11:55:01	83869-1.RAW	11:55:01 AM	2204.30		1		2197.7	13.687	5474.723	ng/L	
Hg2600-2	BC	SAM	F708455-MS3	400	8/24/2017 11:59:09	83870-1.RAW	11:59:09 AM	2064.39		1		2057.8	12.815	5126.082	ng/L	
Hg2600-2	BC	SAM	F708455-MSD3	400	8/24/2017 12:03:17	83871-1.RAW	12:03:17 PM	2047.26		1		2040.6	12.708	5083.396	ng/L	
Hg2600-2	BC	SAM	ws		8/24/2017 12:12:05	83872-1.RAW	12:12:05 PM	102.71		x		96.1	0.599	0.000	ng/L	
Hg2600-2	BC	BLK	F708516-BLK1	100	8/24/2017 12:16:13	83873-1.RAW	12:16:13 PM	27.65		2		21.0	0.131	13.091	ng/L	
Hg2600-2	BC	BLK	F708516-BLK2	100	8/24/2017 12:20:21	83874-1.RAW	12:20:21 PM	26.23		2		19.6	0.122	12.206	ng/L	
Hg2600-2	BC	BLK	F708516-BLK3	100	8/24/2017 12:24:30	83875-1.RAW	12:24:30 PM	18.61		2		12.0	0.075	7.459	ng/L	
Hg2600-2	BC	SAM	F708516-BS1	400	8/24/2017 12:28:38	83876-1.RAW	12:28:38 PM	767.58		2		760.9	4.713	1885.273	ng/L	
Hg2600-2	BC	SAM	F708516-BSD1	400	8/24/2017 12:32:47	83877-1.RAW	12:32:47 PM	769.69		2		763.1	4.726	1890.531	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB					Comments	
		Type	LabNumber							Correction?	RESP	InitialResult	FinalResult	InitialUnits		
Hg2600-2	BC	CAL	SEQ-CCV4	1	8/24/2017 12:36:55	83878-1.RAW	12:36:55 PM	807.76				801.1	4.991	4.991	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	8/24/2017 12:41:04	83879-1.RAW	12:41:04 PM	17.05				10.4	0.065	0.065	ng/L	
Hg2600-2	BC	SAM	1708629-01	2500	8/24/2017 12:45:13	83880-1.RAW	12:45:13 PM	249.63	2			243.0	1.509	3773.545	ng/L	
Hg2600-2	BC	SAM	1708629-02	2500	8/24/2017 12:49:21	83881-1.RAW	12:49:21 PM	244.78	2			238.1	1.479	3698.009	ng/L	
Hg2600-2	BC	SAM	1708631-01	2500	8/24/2017 12:53:30	83882-1.RAW	12:53:30 PM	391.20	2			384.6	2.391	5978.406	ng/L	
Hg2600-2	BC	SAM	1708631-02	2500	8/24/2017 12:57:38	83883-1.RAW	12:57:38 PM	351.14	2			344.5	2.142	5354.497	ng/L	
Hg2600-2	BC	SAM	1708632-01	2500	8/24/2017 13:01:47	83884-1.RAW	1:01:47 PM	238.48	2			231.8	1.440	3599.891	ng/L	
Hg2600-2	BC	SAM	1708632-02	2500	8/24/2017 13:05:55	83885-1.RAW	1:05:55 PM	259.47	2			252.8	1.571	3926.796	ng/L	
Hg2600-2	BC	SAM	ws		8/24/2017 13:10:04	83886-1.RAW	1:10:04 PM	12.02		x		5.4	0.034	0.000	ng/L	
Hg2600-2	BC	SAM	ws		8/24/2017 13:14:12	83887-1.RAW	1:14:12 PM	12.99		x		6.4	0.040	0.000	ng/L	
Hg2600-2	BC	SAM	ws		8/24/2017 13:18:21	83888-1.RAW	1:18:21 PM	1.58		x		-5.1	-0.032	0.000	ng/L	
Hg2600-2	BC	SAM	ws		8/24/2017 13:22:29	83889-1.RAW	1:22:29 PM	14.98		x		8.3	0.052	0.000	ng/L	
Hg2600-2	BC	SAM	1708635-01	2500	8/24/2017 13:27:47	83890-2.RAW	1:27:47 PM	1544.68	2			1538.0	9.577	23943.108	ng/L	
Hg2600-2	BC	SAM	1708635-02	2500	8/24/2017 13:31:56	83891-1.RAW	1:31:56 PM	2127.42	2			2120.8	13.208	33018.905	ng/L	
Hg2600-2	BC	SAM	1708635-03	2500	8/24/2017 13:36:04	83892-1.RAW	1:36:04 PM	305.88	2			299.2	1.860	4649.602	ng/L	
Hg2600-2	BC	SAM	1708635-04	2500	8/24/2017 13:40:13	83893-1.RAW	1:40:13 PM	212.37	2			205.7	1.277	3193.244	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	8/24/2017 13:44:21	83894-1.RAW	1:44:21 PM	804.25				797.6	4.969	4.969	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	8/24/2017 13:48:30	83895-1.RAW	1:48:30 PM	18.81				12.2	0.076	0.076	ng/L	
Hg2600-2	BC	SAM	1708629-01B	100	8/24/2017 13:52:38	83896-1.RAW	1:52:38 PM	21.64	2			15.0	-0.016	-1.572	ng/L	
Hg2600-2	BC	SAM	1708629-02B	100	8/24/2017 13:56:47	83897-1.RAW	1:56:47 PM	31.64	2			25.0	0.047	4.658	ng/L	
Hg2600-2	BC	SAM	1708631-01B	100	8/24/2017 14:00:55	83898-1.RAW	2:00:55 PM	99.41	2			92.8	0.469	46.877	ng/L	
Hg2600-2	BC	SAM	1708631-02B	100	8/24/2017 14:05:04	83899-1.RAW	2:05:04 PM	23.68	2			17.0	-0.003	-0.301	ng/L	
Hg2600-2	BC	SAM	1708632-01B	100	8/24/2017 14:09:12	83900-1.RAW	2:09:12 PM	53.76	2			47.1	0.184	18.438	ng/L	
Hg2600-2	BC	SAM	1708632-02B	100	8/24/2017 14:13:20	83901-1.RAW	2:13:20 PM	43.58	2			36.9	0.121	12.096	ng/L	
Hg2600-2	BC	SAM	1708635-01B	100	8/24/2017 14:17:29	83902-1.RAW	2:17:29 PM	32.72	2			26.1	0.053	5.331	ng/L	
Hg2600-2	BC	SAM	1708635-02B	100	8/24/2017 14:21:37	83903-1.RAW	2:21:37 PM	21.48	2			14.8	-0.017	-1.672	ng/L	
Hg2600-2	BC	SAM	1708635-03B	100	8/24/2017 14:25:46	83904-1.RAW	2:25:46 PM	166.55	2			159.9	0.887	88.703	ng/L	
Hg2600-2	BC	SAM	1708635-04B	100	8/24/2017 14:29:54	83905-1.RAW	2:29:54 PM	33.70	2			27.1	0.059	5.941	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	8/24/2017 14:34:03	83906-1.RAW	2:34:03 PM	791.72				785.1	4.891	4.891	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	8/24/2017 14:38:11	83907-1.RAW	2:38:11 PM	17.84				11.2	0.070	0.070	ng/L	
Hg2600-2	BC	SAM	1708629-01C	1000	8/24/2017 14:42:19	83908-1.RAW	2:42:19 PM	1221.01	2			1214.4	7.554	7554.312	ng/L	
Hg2600-2	BC	SAM	1708629-02C	1000	8/24/2017 14:46:28	83909-1.RAW	2:46:28 PM	1237.39	2			1230.8	7.656	7656.355	ng/L	
Hg2600-2	BC	SAM	1708631-01C	1000	8/24/2017 14:50:36	83910-1.RAW	2:50:36 PM	1137.04	2			1130.4	7.031	7031.201	ng/L	
Hg2600-2	BC	SAM	1708631-02C	1000	8/24/2017 14:54:45	83911-1.RAW	2:54:45 PM	1198.88	2			1192.2	7.416	7416.448	ng/L	
Hg2600-2	BC	SAM	1708632-01C	1000	8/24/2017 14:58:53	83912-1.RAW	2:58:53 PM	1177.19	2			1170.6	7.281	7281.325	ng/L	
Hg2600-2	BC	SAM	1708632-02C	1000	8/24/2017 15:03:02	83913-1.RAW	3:03:02 PM	1272.91	2			1266.3	7.878	7877.635	ng/L	
Hg2600-2	BC	SAM	1708635-01C	2500	8/24/2017 15:07:10	83914-1.RAW	3:07:10 PM	1615.80	2			1609.2	10.020	25050.756	ng/L	
Hg2600-2	BC	SAM	1708635-02C	2500	8/24/2017 15:11:19	83915-1.RAW	3:11:19 PM	1637.46	2			1630.8	10.155	25388.096	ng/L	
Hg2600-2	BC	SAM	1708635-03C	2500	8/24/2017 15:15:27	83916-1.RAW	3:15:27 PM	1459.47	2			1452.8	9.046	22616.017	ng/L	
Hg2600-2	BC	SAM	1708635-04C	2500	8/24/2017 15:19:35	83917-1.RAW	3:19:35 PM	1561.77	2			1555.1	9.684	24209.274	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	8/24/2017 15:23:44	83918-1.RAW	3:23:44 PM	834.22				827.6	5.156	5.156	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	8/24/2017 15:27:52	83919-1.RAW	3:27:52 PM	29.92				23.3	0.145	0.145	ng/L	
Hg2600-2	BC	SAM	F708516-DUP1	2500	8/24/2017 15:32:01	83920-1.RAW	3:32:01 PM	268.47	2			261.8	1.627	4066.966	ng/L	
Hg2600-2	BC	SAM	F708516-MS1	2500	8/24/2017 15:36:10	83921-1.RAW	3:36:10 PM	1094.31	2			1087.7	6.772	16928.888	ng/L	
Hg2600-2	BC	SAM	F708516-MSD1	2500	8/24/2017 15:40:18	83922-1.RAW	3:40:18 PM	1039.44	2			1032.8	6.430	16074.323	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8	1	8/24/2017 15:44:26	83923-1.RAW	3:44:26 PM	809.99				803.4	5.005	5.005	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB8	1	8/24/2017 15:48:35	83924-1.RAW	3:48:35 PM	28.60				22.0	0.137	0.137	ng/L	

TotalMercury
EPA1631

Operat: BC
Worksh: THg2600
Method: #### R: 1
Descr: THg26002-170824-1

BlankSi: 6.6383
CalibFa: 160.52
R: 1

Calib Eqn: Status: 1

Conc = (Area-6.638
QC Warnings:6/QC E

Run Date: 8/24/2017
Run Time: 13:23:38

Blank SD: 2.751227084
Blank RSD%: 41.44480953
CF SD: 5.316881524
CF RSD%: 3.312279929

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean				0.00	4.74					83816-1.RAW	8:02:27	760.50	Clean	OK	1	
clean				0.00	0.01					83817-1.RAW	8:05:18	1.32	Clean	OK	1	
ws				6.64	0.02					83818-1.RAW	8:09:27	10.09	Sample	OK	1	
ws				6.64	0.02					83819-1.RAW	8:13:35	9.75	Sample	OK	1	
ws				6.64	0.00					83820-1.RAW	8:17:44	0.26	Sample	OK	1	
SEQ-IBL1	A1		1	0.00	0.06					83821-1.RAW	8:21:52	9.16	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.02					83822-1.RAW	8:26:00	3.71	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.04					83823-1.RAW	8:30:09	7.04	Sample	OK	1	
SEQ-CAL1	A4		1	6.64	0.53			105.40		83824-1.RAW	8:34:17	91.23	Sample	OK	1	
SEQ-CAL2	A5		1	6.64	1.01			100.72		83825-1.RAW	8:38:26	168.31	Sample	OK	1	
SEQ-CAL3	A6		1	6.64	4.86			97.10		83826-1.RAW	8:42:34	785.97	Sample	OK	1	
SEQ-CAL4	A7		1	6.64	19.79			98.95		83827-1.RAW	8:46:43	3183.40	Sample	OK	1	
SEQ-CAL5	A8		1	6.64	39.13			97.83		83828-1.RAW	8:50:51	6288.11	Sample	OK	1	
SEQ-ICV1	A9		1	6.64	5.24			104.80		83829-1.RAW	8:54:59	847.75	Sample	OK	1	
ws				6.64	0.36					83830-1.RAW	9:13:32	64.78	Sample	OK	1	
F708455-BLK1	A10		20	6.64	1.75					83831-1.RAW	9:17:41	20.68	Sample	OK	1	
F708455-BLK2	A11		20	6.64	1.23					83832-1.RAW	9:21:49	16.55	Sample	OK	1	
F708455-BLK3	A12		20	6.64	1.89					83833-1.RAW	9:25:58	21.82	Sample	OK	1	
F708455-BLK4	A13		20	6.64	0.60					83834-1.RAW	9:30:06	11.47	Sample	OK	1	
F708455-BLK5	A14		20	6.64	1.27					83835-1.RAW	9:34:14	16.86	Sample	OK	1	
F708455-BS1	A15		20	6.64	103.92					83836-1.RAW	9:38:23	840.69	Sample	OK	1	
F708455-BSD1	A16		20	6.64	96.21					83837-1.RAW	9:42:31	778.85	Sample	OK	1	
F708455-BS2	A17		400	6.64	2257.95					83838-1.RAW	9:46:40	912.76	Sample	OK	1	
1708371-04	A18		400	6.64	2490.07					83839-1.RAW	9:50:48	1005.91	Sample	OK	1	
1708119-06RE1	A19		100	6.64	552.56					83840-1.RAW	9:54:56	893.61	Sample	OK	1	
SEQ-CCV1	A20		1	6.64	4.91			98.28		83841-1.RAW	9:59:05	795.41	Sample	OK	1	
SEQ-CCB1	A21		1	6.64	0.07			0.00		83842-1.RAW	10:03:13	18.11	Sample	OK	1	
1708240-01	B1		100	6.64	712.74					83843-1.RAW	10:07:22	1150.74	Sample	OK	1	
1708240-02	B2		100	6.64	504.05					83844-1.RAW	10:11:30	815.75	Sample	OK	1	
1708240-03	B3		100	6.64	538.65					83845-1.RAW	10:15:39	871.28	Sample	OK	1	
1708240-04	B4		100	6.64	759.30					83846-1.RAW	10:19:47	1225.47	Sample	OK	1	
1708240-05	B5		100	6.64	698.08					83847-1.RAW	10:23:55	1127.21	Sample	OK	1	
1708240-06	B6		100	6.64	523.21					83848-1.RAW	10:28:04	846.50	Sample	OK	1	
1708240-07	B7		100	6.64	681.80					83849-1.RAW	10:32:12	1101.06	Sample	OK	1	
1708240-08	B8		100	6.64	484.97					83850-1.RAW	10:36:21	785.12	Sample	OK	1	
1708240-09	B9		100	6.64	287.57					83851-1.RAW	10:40:29	468.25	Sample	OK	1	
1708240-10	B10		100	6.64	569.27					83852-1.RAW	10:44:37	920.43	Sample	OK	1	
SEQ-CCV2	B11		1	6.64	5.14			102.74		83853-1.RAW	10:48:46	831.21	Sample	OK	1	
SEQ-CCB2	B12		1	6.64	0.11			0.00		83854-1.RAW	10:52:54	24.10	Sample	OK	1	
1708240-11	B13		100	6.64	424.35					83855-1.RAW	10:57:03	687.81	Sample	OK	1	
1708240-12	B14		100	6.64	348.74					83856-1.RAW	11:01:11	566.44	Sample	OK	1	
1708240-13	B15		100	6.64	363.47					83857-1.RAW	11:05:19	590.08	Sample	OK	1	
1708240-14	B16		100	6.64	296.11					83858-1.RAW	11:09:28	481.96	Sample	OK	1	
1708240-15	B17		100	6.64	315.52					83859-1.RAW	11:13:36	513.12	Sample	OK	1	
1708371-01	B18		400	6.64	6420.89					83860-1.RAW	11:17:45	2583.34	Sample	OK	1	
1708371-02	B19		400	6.64	6300.76					83861-1.RAW	11:21:53	2535.14	Sample	OK	1	
1708371-03	B20		400	6.64	6594.32					83862-1.RAW	11:26:02	2652.95	Sample	OK	1	
F708455-DUP1	B21		100	6.64	720.62					83863-1.RAW	11:30:10	1163.39	Sample	OK	1	
F708455-MS1	C1		400	6.64	5276.96			731.26		83864-1.RAW	11:34:18	2124.29	Sample	OK	1	

SEQ-CCV3	C2	1	6.64	5.13	102.63	83865-1.RAW	11:38:27	830.37	Sample	OK	1	
SEQ-CCB3	C3	1	6.64	0.18	0.00	83866-1.RAW	11:42:35	35.59	Sample	OK	1	
F708455-MSD1	C4	400	6.64	5367.49		83867-1.RAW	11:46:44	2160.62	Sample	OK	1	
F708455-MS2	C5	400	6.64	5385.55	100.30	83868-1.RAW	11:50:52	2167.86	Sample	OK	1	
F708455-MSD2	C6	400	6.64	5476.35		83869-1.RAW	11:55:01	2204.30	Sample	OK	1	
F708455-MS3	C7	400	6.64	5127.71	93.58	83870-1.RAW	11:59:09	2064.39	Sample	OK	1	
F708455-MSD3	C8	400	6.64	5085.01		83871-1.RAW	12:03:17	2047.26	Sample	OK	1	
ws			6.64	0.60		83872-1.RAW	12:12:05	102.71	Sample	OK	1	
F708516-BLK1	C9	100	6.64	13.09		83873-1.RAW	12:16:13	27.65	Sample	OK	1	
F708516-BLK2	C10	100	6.64	12.21		83874-1.RAW	12:20:21	26.23	Sample	OK	1	
F708516-BLK3	C11	100	6.64	7.46		83875-1.RAW	12:24:30	18.61	Sample	OK	1	
F708516-BS1	C12	400	6.64	1896.18		83876-1.RAW	12:28:38	767.58	Sample	OK	1	
F708516-BSD1	C13	400	6.64	1901.45		83877-1.RAW	12:32:47	769.69	Sample	OK	1	
SEQ-CCV4	C14	1	6.64	4.99	99.82	83878-1.RAW	12:36:55	807.76	Sample	OK	1	
SEQ-CCB4	C15	1	6.64	0.06	0.00	83879-1.RAW	12:41:04	17.05	Sample	OK	1	
1708629-01	C16	2500	6.64	3784.38		83880-1.RAW	12:45:13	249.63	Sample	OK	1	
1708629-02	C17	2500	6.64	3708.85		83881-1.RAW	12:49:21	244.78	Sample	OK	1	
1708631-01	C18	2500	6.64	5989.38		83882-1.RAW	12:53:30	391.20	Sample	OK	1	
1708631-02	C19	2500	6.64	5365.37		83883-1.RAW	12:57:38	351.14	Sample	OK	1	
1708632-01	C20	2500	6.64	3610.82		83884-1.RAW	13:01:47	238.48	Sample	OK	1	
1708632-02	C21	2500	6.64	3937.64		83885-1.RAW	13:05:55	259.47	Sample	OK	1	
ws			6.64	0.03		83886-1.RAW	13:10:04	12.02	Sample	OK	1	NO LOCATION
ws			6.64	0.04		83887-1.RAW	13:14:12	12.99	Sample	OK	1	NO LOCATION
ws			6.64	0.00		83888-1.RAW	13:18:21	1.58	Sample	OK	1	NO LOCATION
ws			6.64	0.05		83889-1.RAW	13:22:29	14.98	Sample	OK	1	NO LOCATION
1708635-01	A1	2500	6.64	23954.05		83890-2.RAW	13:27:47	1544.68	Sample	OK	1	
1708635-02	A2	2500	6.64	33029.76		83891-1.RAW	13:31:56	2127.42	Sample	OK	1	
1708635-03	A3	2500	6.64	4660.52		83892-1.RAW	13:36:04	305.88	Sample	OK	1	
1708635-04	A4	2500	6.64	3204.07		83893-1.RAW	13:40:13	212.37	Sample	OK	1	
SEQ-CCV5	A5	1	6.64	4.97	99.38	83894-1.RAW	13:44:21	804.25	Sample	OK	1	
SEQ-CCB5	A6	1	6.64	0.08	0.00	83895-1.RAW	13:48:30	18.81	Sample	OK	1	
1708629-01B	A7	100	6.64	9.35		83896-1.RAW	13:52:38	21.64	Sample	OK	1	
1708629-02B	A8	100	6.64	15.58		83897-1.RAW	13:56:47	31.64	Sample	OK	1	
1708631-01B	A9	100	6.64	57.80		83898-1.RAW	14:00:55	99.41	Sample	OK	1	
1708631-02B	A10	100	6.64	10.61		83899-1.RAW	14:05:04	23.68	Sample	OK	1	
1708632-01B	A11	100	6.64	29.36		83900-1.RAW	14:09:12	53.76	Sample	OK	1	
1708632-02B	A12	100	6.64	23.01		83901-1.RAW	14:13:20	43.58	Sample	OK	1	
1708635-01B	A13	100	6.64	16.25		83902-1.RAW	14:17:29	32.72	Sample	OK	1	
1708635-02B	A14	100	6.64	9.25		83903-1.RAW	14:21:37	21.48	Sample	OK	1	
1708635-03B	A15	100	6.64	99.62		83904-1.RAW	14:25:46	166.55	Sample	OK	1	
1708635-04B	A16	100	6.64	16.86		83905-1.RAW	14:29:54	33.70	Sample	OK	1	
SEQ-CCV6	A17	1	6.64	4.89	97.82	83906-1.RAW	14:34:03	791.72	Sample	OK	1	
SEQ-CCB6	A18	1	6.64	0.07	0.00	83907-1.RAW	14:38:11	17.84	Sample	OK	1	
1708629-01C	A19	1000	6.64	7565.24		83908-1.RAW	14:42:19	1221.01	Sample	OK	1	
1708629-02C	A20	1000	6.64	7667.28		83909-1.RAW	14:46:28	1237.39	Sample	OK	1	
1708631-01C	A21	1000	6.64	7042.09		83910-1.RAW	14:50:36	1137.04	Sample	OK	1	
1708631-02C	B1	1000	6.64	7427.37		83911-1.RAW	14:54:45	1198.88	Sample	OK	1	
1708632-01C	B2	1000	6.64	7292.24		83912-1.RAW	14:58:53	1177.19	Sample	OK	1	
1708632-02C	B3	1000	6.64	7888.52		83913-1.RAW	15:03:02	1272.91	Sample	OK	1	
1708635-01C	B4	2500	6.64	25061.59		83914-1.RAW	15:07:10	1615.80	Sample	OK	1	
1708635-02C	B5	2500	6.64	25398.96		83915-1.RAW	15:11:19	1637.46	Sample	OK	1	
1708635-03C	B6	2500	6.64	22626.87		83916-1.RAW	15:15:27	1459.47	Sample	OK	1	
1708635-04C	B7	2500	6.64	24220.18		83917-1.RAW	15:19:35	1561.77	Sample	OK	1	
SEQ-CCV7	B8	1	6.64	5.16	103.11	83918-1.RAW	15:23:44	834.22	Sample	OK	1	

SEQ-CCB7	B9	1	6.64	0.15	0.00	83919-1.RAW	15:27:52	29.92	Sample	OK	1
F708516-DUP1	B10	2500	6.64	4077.80		83920-1.RAW	15:32:01	268.47	Sample	OK	1
F708516-MS1	B11	2500	6.64	16939.85	415.31	83921-1.RAW	15:36:10	1094.31	Sample	OK	1
F708516-MSD1	B12	2500	6.64	16085.20		83922-1.RAW	15:40:18	1039.44	Sample	OK	1
SEQ-CCV8	B13		6.64	5.00	100.09	83923-1.RAW	15:44:26	809.99	Sample	OK	1
SEQ-CCB8	B14		6.64	0.14	0.00	83924-1.RAW	15:48:35	28.60	Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE
PEER-REVIEWED

7H25010



INITIALS: *a* 8/25/17 Analyzed: 8/24/2017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H25010-IBL1 ✓	QC	1			
7H25010-IBL2 ✓	QC	2			
7H25010-IBL3 ✓	QC	3			
7H25010-CAL1 ✓	QC	4	1704505 ✓		
7H25010-CAL2 ✓	QC	5	1704506 ✓		
7H25010-CAL3 ✓	QC	6	1704507 ✓		
7H25010-CAL4 ✓	QC	7	1704508 ✓		
7H25010-CAL5 ✓	QC	8	1704509 ✓		
7H25010-ICV1 ✓	QC	9	1703679 ✓		
7H25010-CCV1 ✓	QC	10	1703679 ✓		
7H25010-CCB1 ✓	QC	11			
7H25010-CCV2 ✓	QC	12	1703679 ✓		
7H25010-CCB2 ✓	QC	13			
7H25010-CCV3 ✓	QC	14	1703679 ✓		
7H25010-CCB3 ✓	QC	15			
F708516-BLK1 ✓	QC	16			
F708516-BLK2 ✓	QC	17			
F708516-BLK3 ✓	QC	18			
F708516-BS1 ✓	QC	19			
F708516-BSD1 ✓	QC	20			
7H25010-CCV4 ✓	QC	21	1703679 ✓		
7H25010-CCB4 ✓	QC	22			
1708629-01 ✓	Hg_FSTM_TRAP_A	23			
1708629-02 ✓	Hg_FSTM_TRAP_A	24			
1708631-01 ✓	Hg_FSTM_TRAP_A	25			
1708631-02 ✓	Hg_FSTM_TRAP_A	26			
1708632-01 ✓	Hg_FSTM_TRAP_A	27			
1708632-02 ✓	Hg_FSTM_TRAP_A	28			
1708635-01 ✓	Hg_FSTM_TRAP_A	29			AFS - Take photos of trap if heavy particulate present and send to PM
1708635-02 ✓	Hg_FSTM_TRAP_A	30			AFS - Take photos of trap if heavy particulate present and send to PM
1708635-03 ✓	Hg_FSTM_TRAP_A	31			AFS - Take photos of trap if heavy particulate present and send to PM
1708635-04 ✓	Hg_FSTM_TRAP_A	32			AFS - Take photos of trap if heavy particulate present and send to PM
7H25010-CCV5 ✓	QC	33	1703679 ✓		
7H25010-CCB5 ✓	QC	34			
7H25010-CCV6 ✓	QC	35	1703679 ✓		

ANALYSIS SEQUENCE

7H25010



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 8/24/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H25010-CCB6	QC	36			
7H25010-CCV7	QC	37	1703679		
7H25010-CCB7	QC	38			
F708516-DUP1	QC	39			
F708516-MS1	QC	40			
F708516-MSD1	QC	41			
7H25010-CCV8	QC	42	1703679		
7H25010-CCB8	QC	43			

[Signature] 8/25/17
Samples Loaded By Date

[Signature] 8/25/17
Data Processed By Date

16ndol
8/24/17

PREPARATION BENCH SHEET

F708516

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/23/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708516-BLK1	Blank	1	100					
F708516-BLK2	Blank	1	100					
F708516-BLK3	Blank	1	100					
F708516-BS1	LCS	1	100	1701763	200			
F708516-BSD1	LCS Dup	1	100	1701763	200			
F708516-DUP1	Duplicate [1708629-01]	1	100					
F708516-MS1	Matrix Spike [1708629-01]	0.0002	0.02	1704422	25			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL
F708516-MSD1	Matrix Spike Dup [1708629-01]	0.0002	0.02	1704422	25			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL

<u>Standard ID(s):</u>	<u>Description:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard
1704422	THg 10ng/mL Calibration Standard

<u>Expiration:</u>
22-Sep-17 00:00
21-Oct-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1704097	FSTM Lot 170707B	06-Jul-18 00:00
1704516	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
1704956	3% SnCl2 THg reductant	29-Jan-18 00:00
1705022	70/30 Digestion Acid	13-Feb-18 00:00
1705174	5% BrCl	22-Jan-18 00:00

PREPARATION BENCH SHEET

F708516

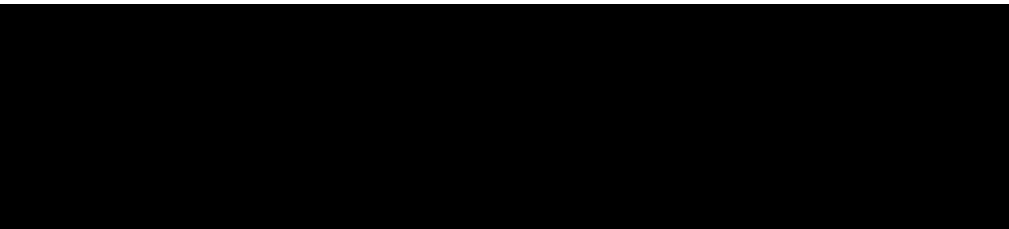
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/23/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708629-01	EFGS08916	1	100	-	-	-	Sample Volume: 2,686.17 L	
1708629-02	EFGS08917	1	100	-	-	-	Sample Volume: 2,686.74 L	
1708631-01	EFGS08671	1	100	-	-	-	Sample Volume: 2,839.51 L	
1708631-02	EFGS08159	1	100	-	-	-	Sample Volume: 2,839.63 L	
1708632-01	EFGS07950	1	100	-	-	-	Sample Volume: 2,435.29 L	
1708632-02	EFGS08550	1	100	-	-	-	Sample Volume: 2,435.29 L	
1708635-01	EFGS09048 33 Trap A 8/9/17 - 8/16/17	1	100	-	-	-	2823.094 L AFS - Take photos of trap if	
1708635-02	EFGS09049 33 Trap B 8/9/17 - 8/16/17	1	100	-	-	-	3700.393 L AFS - Take photos of trap if	
1708635-03	EFGS09126 U4 Trap A 8/9/17 - 8/16/17	1	100	-	-	-	3860.97 L AFS - Take photos of trap if	
1708635-04	EFGS09216 U4 Trap B 8/9/17 - 8/16/17	1	100	-	-	-	2940.75 L AFS - Take photos of trap if	



PREPARATION BENCH SHEET

2600-2
BC 8/25/17

F708516

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/23/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708516-BLK1	Blank	1	100					100X
F708516-BLK2	Blank	1	100					100X
F708516-BLK3	Blank	1	100					100X
F708516-BS1	LCS	1	100	1701763	200			400X
F708516-BSD1	LCS Dup	1	100	1701763	200			400X
F708516-DUP1	Duplicate 1708679-01	1	100					2500X
F708516-MS1	Matrix Spike 1708679-01	1	100	1704422	25			2500X
F708516-MSD1	Matrix Spike Dup 1708679	1	100	1704422	25			2500X

Standard ID(s):
1701763

Description:
THg 1,000ng/mL Secondary Spiking Standard

Expiration:
22-Sep-17 00:00

Reagent ID(s):
1704097
1705022
1705174

Description:
FSTM Lot 170707B
70/30 Digestion Acid
5% BrCl

Expiration:
06-Jul-18 00:00
13-Feb-18 00:00
22-Jan-18 00:00

170495C
1704516
1704517
1703182

PREPARATION BENCH SHEET

2600 - 2
 BK 8/25/17

F708516

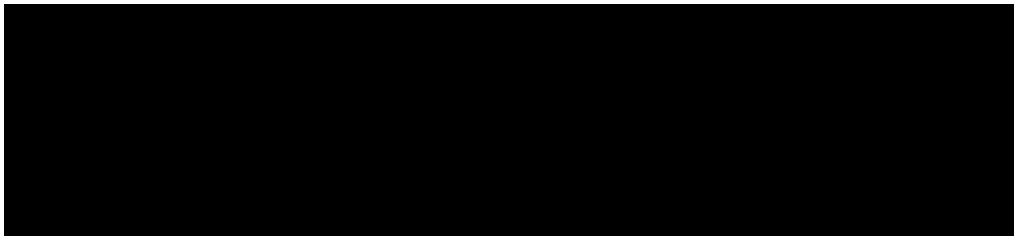
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/23/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments	C
1708629-01	EFGS08916	1	100	-	-	-	Sample Volume: 2,686.17 L 2500X	100X	1000X
1708629-02	EFGS08917	1	100	-	-	-	Sample Volume: 2,686.74 L 2500X	100X	1000X
1708631-01	EFGS08671	1	100	-	-	-	Sample Volume: 2,839.51 L 2500X	100X	1000X
1708631-02	EFGS08159	1	100	-	-	-	Sample Volume: 2,839.63 L 2500X	100X	1000X
1708632-01	EFGS07950	1	100	-	-	-	Sample Volume: 2,435.29 L 2500X	100X	1000X
1708632-02	EFGS08550	1	100	-	-	-	Sample Volume: 2,435.29 L 2500X	100X	1000X
1708635-01	EFGS09048 33 Trap A 8/9/17 - 8/16/17	1	100	-	-	-	2823.094 L AFS - Take photos of trap if 2500X	100X	2500X
1708635-02	EFGS09049 33 Trap B 8/9/17 - 8/16/17	1	100	-	-	-	3700.393 L AFS - Take photos of trap if 2500X	100X	2500X
1708635-03	EFGS09126 U4 Trap A 8/9/17 - 8/16/17	1	100	-	-	-	3860.97 L AFS - Take photos of trap if 2500X	100X	2500X
1708635-04	EFGS09216 U4 Trap B 8/9/17 - 8/16/17	1	100	-	-	-	2940.75 L AFS - Take photos of trap if 2500X	100X	2500X



Trap Digestions

Name: BL Date: 8/23/17 Batch ID: F708516
 Work Order(s): 1708629, 1708631, 1708632, 1708635 Analysis: Total Hg Other _____
 Sample Matrix: FSTM KCl PHg Plug Other _____
 Prep: 70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)
 start time: 15:45, start temp (°C): 55.0 (raw) 54.8 (w/ CF)
 end time: 17:45, end temp (°C): 65.0 (raw) 64.8 (w/ CF) Timer? Yes No
 5% BrCl Oxidation (EFGS-031) start time: _____ (allow samples to sit for at least 4 hr before analysis)
 Other _____

Sample ID Number	Digest vol. (mL)	
F708516 - B1K1	100	
F708516 - B1K2	100	Spike ID: <u>1701763</u>
F708516 - B1K3	100	Spike Amount (µL): <u>200</u>
F708516 - B51	100	Spike Witness: <u>DM 8/25/17</u>
F708516 - B5D1	100	
1708629 - 01A	100	BrCl ID: <u>1705174, 1704958</u>
1708629 - 01B	100	70/30: <u>1709022</u>
1708629 - 01C	100	Other: <u>N/A</u>
1708629 - 02A	100	
1708629 - 02B	100	
1708629 - 02C	100	Thermometer: <u>14545</u>
1708631 - 01A	100	Dispensers: 02K27494 <input checked="" type="checkbox"/>
1708631 - 01B	100	04N73497 <input type="checkbox"/>
1708631 - 01C	100	Other <u>15406623</u>
1708631 - 02A	100	
1708631 - 02B	100	
1708631 - 02C	100	Pipette ID: <u>0U07852</u>
1708632 - 01A	100	Cal. Date: <u>8/18/17</u>
1708632 - 01B	100	
1708632 - 01C	100	Vials and Jars lot# <u>0068447</u>
1708632 - 02A	100	Trap Material Lot#: <u>1704047</u>
1708632 - 02B	100	Loader Mass Verified: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1708632 - 02C	100	
1708635 - 01A	100	
1708635 - 01B	100	
1708635 - 01C	100	Comments:
1708635 - 02A	100	<u>1708629, 1708631,</u>
1708635 - 02B	100	<u>1708632 CBs 5 SAVED</u>
1708635 - 02C	100	<u>@ 9001g</u>
1708635 - 03A	100	<u>1708635 C BUs</u>
1708635 - 03B	100	<u>spikes @ 2,7001g</u>
1708635 - 03C	100	
1708635 - 04A	100	
1708635 - 04B	100	
1708635 - 04C	100	

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7H25009

PEER-REVIEWED

Instrument: Hg2600-2



Calibration ID: UNASSIGNED

INITIALS: *R 8/25/17*
Analyzed: 8/24/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H25009-IBL1 ✓	QC	1			
7H25009-IBL2 ✓	QC	2			
7H25009-IBL3 ✓	QC	3			
7H25009-CAL1 ✓	QC	4	1704505 ✓		
7H25009-CAL2 ✓	QC	5	1704506 ✓		
7H25009-CAL3 ✓	QC	6	1704507 ✓		
7H25009-CAL4 ✓	QC	7	1704508 ✓		
7H25009-CAL5 ✓	QC	8	1704509 ✓		
7H25009-ICV1 ✓	QC	9	1703679 ✓		
F708455-BLK1 ✓	QC	10			
F708455-BLK2 ✓	QC	11			
F708455-BLK3 ✓	QC	12			
F708455-BLK4 ✓	QC	13			
F708455-BLK5 ✓	QC	14			
F708455-BS1 ✓	QC	15			
F708455-BSD1 ✓	QC	16			
F708455-BS2 ✓	QC	17			
1708371-04 ✓	Hg-CVAFS-T-7030	18			
1708119-06RE1 ✓	Hg-CVAFS-T-7030	19			QC needed for sample. See MMO notes. PL 8/17/17
7H25009-CCV1 ✓	QC	20	1703679 ✓		
7H25009-CCB1 ✓	QC	21			
1708240-01 ✓	Hg-CVAFS-T-7030	22			
1708240-02 ✓	Hg-CVAFS-T-7030	23			
1708240-03 ✓	Hg-CVAFS-T-7030	24			
1708240-04 ✓	Hg-CVAFS-T-7030	25			
1708240-05 ✓	Hg-CVAFS-T-7030	26			
1708240-06 ✓	Hg-CVAFS-T-7030	27			
1708240-07 ✓	Hg-CVAFS-T-7030	28			
1708240-08 ✓	Hg-CVAFS-T-7030	29			
1708240-09 ✓	Hg-CVAFS-T-7030	30			
1708240-10 ✓	Hg-CVAFS-T-7030	31			
7H25009-CCV2 ✓	QC	32	1703679 ✓		
7H25009-CCB2 ✓	QC	33			
1708240-11 ✓	Hg-CVAFS-T-7030	34			
1708240-12 ✓	Hg-CVAFS-T-7030	35			

ANALYSIS SEQUENCE

7H25009



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 8/24/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708240-13 ✓	Hg-CVAFS-T-7030	36			
1708240-14 ✓	Hg-CVAFS-T-7030	37			
1708240-15 ✓	Hg-CVAFS-T-7030	38			
1708371-01 ✓	Hg-CVAFS-T-7030	39			
1708371-02 ✓	Hg-CVAFS-T-7030	40			
1708371-03 ✓	Hg-CVAFS-T-7030	41			
F708455-DUPI ✓	QC	42			
F708455-MS1 ✓	QC	43			
7H25009-CCV3 ✓	QC	44	1703679 ✓		
7H25009-CCB3 ✓	QC	45			
F708455-MSD1 ✓	QC	46			
F708455-MS2 ✓	QC	47			
F708455-MSD2 ✓	QC	48			
F708455-MS3 ✓	QC	49			
F708455-MSD3 ✓	QC	50			
7H25009-CCV4 ✓	QC	51	1703679 ✓		
7H25009-CCB4 ✓	QC	52			

[Signature] 8/25/17
 Samples Loaded By Date

[Signature] 8/25/17
 Data Processed By Date

10 added
 8/24/17

PREPARATION BENCH SHEET

F708455

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/16/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708455-BLK1	Blank	0.5	20					
F708455-BLK2	Blank	0.5	20					
F708455-BLK3	Blank	0.5	20					
F708455-BLK4	Pre-BLK for 1708240	0.2713	20					
F708455-BLK5	Post-BLK for 1708240	0.2806	20					
F708455-BS1	LCS	0.2696	20	1704421	20			
F708455-BS2	LCS	0.129	20	1703305	129			
F708455-BSD1	LCS Dup	0.2952	20	1704421	20			
F708455-DUP1	Duplicate [1708119-06RE1]	0.284	20					
F708455-MS1	Matrix Spike [1708119-06RE1]	0.2503	20	1701763	100			
F708455-MS2	Matrix Spike [1708240-10]	0.274	20	1701763	100			
F708455-MS3	Matrix Spike [1708240-15]	0.2602	20	1701763	100			
F708455-MSD1	Matrix Spike Dup [1708119-06RE1]	0.2819	20	1701763	100			
F708455-MSD2	Matrix Spike Dup [1708240-10]	0.2688	20	1701763	100			
F708455-MSD3	Matrix Spike Dup [1708240-15]	0.2637	20	1701763	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1703305	DORM-4	29-May-20 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1704516	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
			1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
			1704956	3% SnCl2 THg reductant	29-Jan-18 00:00
			1704958	5% BrCl	18-Dec-17 00:00
			1705022	70/30 Digestion Acid	13-Feb-18 00:00

PREPARATION BENCH SHEET

F708455

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/16/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708119-06RE1	ES-13_17HC001_072517_POL_01_WB	0.2509	20	QC	-	-	MS/MSD QC needed for sample. See N	
1708240-01	MM-MR_INT_17HC001_080117_POL_01_WB	0.2642	20	-	-	-		
1708240-02	MM-MR_INT_17HC001_080117_POL_02_WB	0.2517	20	-	-	-		
1708240-03	MM-MR_INT_17HC001_080117_POL_03_WB	0.2872	20	-	-	-		
1708240-04	MM-MR_INT_17HC001_080117_POL_04_WB	0.2558	20	-	-	-		
1708240-05	MM-MR_INT_17HC001_080117_POL_05_WB	0.2554	20	-	-	-		
1708240-06	PI-01_17HC001_080217_POL_01_WB	0.2814	20	-	-	-		
1708240-07	PI-01_17HC001_080217_POL_02_WB	0.2987	20	-	-	-		
1708240-08	PI-01_17HC001_080217_POL_03_WB	0.2915	20	-	-	-		
1708240-09	PI-01_17HC001_080217_POL_04_WB	0.2624	20	-	-	-		
1708240-10	PI-01_17HC001_080217_POL_05_WB	0.2701	20	QC	-	-	MS/MSD	
1708240-11	SVE-02INT_17HC001_080217_POL_01_WB	0.2927	20	-	-	-		
1708240-12	SVE-02INT_17HC001_080217_POL_02_WB	0.2909	20	-	-	-		
1708240-13	SVE-02INT_17HC001_080217_POL_03_WB	0.2935	20	-	-	-		
1708240-14	SVE-02INT_17HC001_080217_POL_04_WB	0.2668	20	-	-	-		
1708240-15	SVE-02INT_17HC001_080217_POL_05_WB	0.2515	20	QC	-	-	MS/MSD	
1708371-01	IAEA-MESL-ILC-TE Biota-2017 Bottle N30	0.2517	20	-	-	-	Use IAEA-461 as a CRM (B4 Dessicat	
1708371-02	IAEA-MESL-ILC-TE Biota-2017 Bottle N30	0.2538	20	-	-	-	Use IAEA-461 as a CRM (B4 Dessicat	
1708371-03	IAEA-MESL-ILC-TE Biota-2017 Bottle N30	0.2604	20	-	-	-	Use IAEA-461 as a CRM (B4 Dessicat	

Due Date: 8/31/2017

PREPARATION BENCH SHEET

F708455

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/16/2017

1708371-04	IAEA-461	0.1289	20	-	-	-	The CRM: Past Issues with MHg and T
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PREPARATION BENCH SHEET

2600-2
MC 8/25/17

F708455

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/16/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708455-BLK1	Blank	0.5	20					20X
F708455-BLK2	Blank	0.5	20					20X
F708455-BLK3	Blank	0.5	20					20X
F708455-BLK4	Pre-BLK for 1708240	0.2713	20					20X
F708455-BLK5	Post-BLK for 1708240	0.2806	20					20X
F708455-BS1	LCS	0.2696	20	1704421	20			20X
F708455-BS2	LCS	0.129	20	1703305	129			400X
F708455-BS3	LCS	0.1289	20					400X
F708455-BSD1	LCS Dup	0.2952	20	1704421	20			20X
F708455-DUP1	Duplicate [1708119-06RE1]	0.284	20					100X
F708455-MS1	Matrix Spike [1708119-06RE1]	0.2503	20	1701763	100			400X
F708455-MS2	Matrix Spike [1708240-10]	0.274	20	1701763	100			400X
F708455-MS3	Matrix Spike [1708240-15]	0.2602	20	1701763	100			400X
F708455-MSD1	Matrix Spike Dup [1708119-06RE1]	0.2819	20	1701763	100			400X
F708455-MSD2	Matrix Spike Dup [1708240-10]	0.2688	20	1701763	100			400X
F708455-MSD3	Matrix Spike Dup [1708240-15]	0.2637	20	1701763	100			400X

Standard ID(s):
1701763 THg 1,000ng/mL Secondary Spiking Standard
1703305 DORM-4
1704421 THg 100ng/mL Primary Spiking Standard

Expiration:
22-Sep-17 00:00
29-May-20 00:00
21-Oct-17 00:00

Reagent ID(s):
1704424 Boiling Chips for AFS prep
1704958 5% BrCl
1705022 70/30 Digestion Acid

Expiration:
21-Jan-18 00:00
18-Dec-17 00:00
13-Feb-18 00:00

Due Date: 8/31/2017

1704956
1704516
1704517
1703182

PREPARATION BENCH SHEET

F708455

Eurofins Frontier Global Sciences, Inc.

2600-2
 BK 8/25/17

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/16/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708119-06RE1	ES-13_17HC001_072517_POL_01_WB	0.2509	20	QC	-	-	MS/MSD QC needed for sample. See IV 100X	
1708240-01	MM-MR_INT_17HC001_080117_POL_01_WB	0.2642	20	-	-	-	100X	
1708240-02	MM-MR_INT_17HC001_080117_POL_02_WB	0.2517	20	-	-	-	100X	
1708240-03	MM-MR_INT_17HC001_080117_POL_03_WB	0.2872	20	-	-	-	100X	
1708240-04	MM-MR_INT_17HC001_080117_POL_04_WB	0.2558	20	-	-	-	100X	
1708240-05	MM-MR_INT_17HC001_080117_POL_05_WB	0.2554	20	-	-	-	100X	
1708240-06	PI-01_17HC001_080217_POL_01_WB	0.2814	20	-	-	-	100X	
1708240-07	PI-01_17HC001_080217_POL_02_WB	0.2987	20	-	-	-	100X	
1708240-08	PI-01_17HC001_080217_POL_03_WB	0.2915	20	-	-	-	100X	
1708240-09	PI-01_17HC001_080217_POL_04_WB	0.2624	20	-	-	-	100X	
1708240-10	PI-01_17HC001_080217_POL_05_WB	0.2701	20	QC	-	-	MS/MSD 100X	
1708240-11	SVE-02INT_17HC001_080217_POL_01_WB	0.2927	20	-	-	-	100X	
1708240-12	SVE-02INT_17HC001_080217_POL_02_WB	0.2909	20	-	-	-	100X	
1708240-13	SVE-02INT_17HC001_080217_POL_03_WB	0.2935	20	-	-	-	100X	
1708240-14	SVE-02INT_17HC001_080217_POL_04_WB	0.2668	20	-	-	-	100X	
1708240-15	SVE-02INT_17HC001_080217_POL_05_WB	0.2515	20	QC	-	-	MS/MSD 100X	
1708371-01	IAEA-MESL-ILC-TE Biota-2017 Bottle N30	0.2517	20	-	-	-	Use IAEA-461 as a CRM (B4 Dessicatt 100X	
1708371-02	IAEA-MESL-ILC-TE Biota-2017 Bottle N30	0.2538	20	-	-	-	Use IAEA-461 as a CRM (B4 Dessicatt 100X	
1708371-03	IAEA-MESL-ILC-TE Biota-2017 Bottle N30	0.2604	20	-	-	-	Use IAEA-461 as a CRM (B4 Dessicatt 100X	

PREPARATION BENCH SHEET

F708455

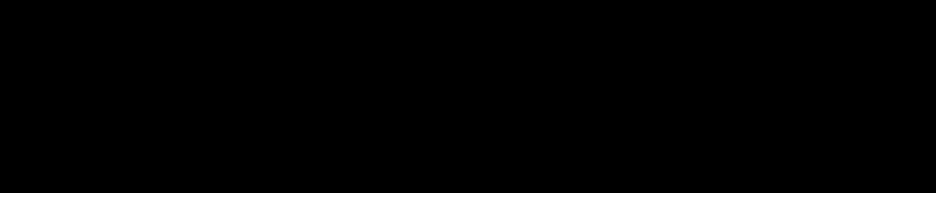
Eurofins Frontier Global Sciences, Inc.

2600 - 2
BL 8/25/17

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/16/2017



Due Date: 8/31/2017

Technician: WFC/CLL Batch#: F708455 Date: 8/16/17 8/17/17 8/17/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____
 Balance#: 19 Calibrated? Yes No Therm.#: 14645 Vial Type: Glass Teflon
 Calibrated? Yes No

*Time in: 1421 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C
 Time out: 1646 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C
 *Time in can't begin before target temperature is reached

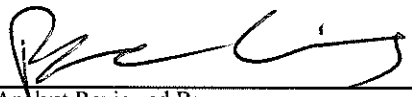
Final vol.: 20 mL (LIMS ID: 1704458) Spike vol.: 100 µL (LIMS ID: 1701763)
 Spike Witness: CWC 8/18/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0007852 Calibration Date: 8/18/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705002 Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 00068124 Boiling Chip lot # 1704424 *Hotblock Position: L6

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F708455 - Blk1	0.2639	23	1708240 - 11	0.2927	BS2 = DORM-4
2	F708455 - Blk2	0.2794	24	1708240 - 12	0.2909	LIMS = 1703305
3	F708455 - Blk3	0.2773	25	1708240 - 13	0.2935	BS3 = IAEA 461
4	F708455 - BS1	0.2696	26	1708240 - 14	0.2668	Comments
5	F708455 - BSD1	0.2952	27	1708240 - 15	0.2515	Blk4 + 5 are
6	F708455 - BS2	0.1290	28	F708455 - MS3	0.2602	homog. pre+post
7	1708119 - OGREI	0.2509	29	F708455 - MSD3	0.2637	blanks respectively.
8	F708455 - DUPI	0.2840	30	1708371 - 01	0.2517	Dupl (MS1/MSD)
9	F708455 - MS1	0.2503	31	1708371 - 02	0.2538	SRC: 1708119-06REI
10	F708455 - MSD1	0.2819	32	1708371 - 03	0.2604	MS2/MSD2 SRC:
11	1708240 - 01	0.2642	33	F708455 - Blk4	0.2713	1708240-10
12	1708240 - 02	0.2517	34	F708455 - Blk5	0.2806	MS3/MSD3 SRC:
13	1708240 - 03	0.2872	35	F708455 - BS3	0.1289	1708240-15
14	1708240 - 04	0.2558	36			Spike & Acid
15	1708240 - 05	0.2554	37			added by CWC
16	1708240 - 06	0.2814	38			BS1/BSD1 spike:
17	1708240 - 07	0.2987	39			20 µL 0 & 100 µg/mL
18	1708240 - 08	0.2915	40			1704421
19	1708240 - 09	0.2624	41			* F708455 - BS3
20	1708240 - 10	0.2701	42			is sample
21	F708455 - MS2	0.2740	43			1708371 - 04
22	F708455 - MSD2	0.2688	44			CWC 8/25/17

Failing Data Report - 7H25009

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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 8/25/17
Analyst Reviewed By Date

 8/25/17
Peer Reviewed By Date

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: <u>BC</u>	Sequence(s) #: <u>7h25009, 7h25010</u>
Reviewer: <u>R 8/25/17</u>	Dataset ID(s): <u>THg26002-170824-1</u>
Date: <u>8/25/2017</u>	WO (s) #: <u>VARIOUS</u>
Batch #(s): <u>F708455, F708516</u>	

• Select the correct preparation method.

Analyte	Prep Method	Matrix	
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg ⁰	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: BC

Reviewer Initials: R 8/25/17

- | | | | | |
|---|---|--|-------------------------------------|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | | | | |
| (b) Check 5% of transcription from Instrument print-out and Excel file | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | | | | |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 50 ml / aliquot = Excel dilution value | | | | |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> | |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7h25009, 7h25010
Reviewer: 0 R 8/25/17	Dataset ID(s): THg26002-170824-1
Date: 8/25/2017	WO (s) #: VARIOUS
Batch #(s): F708455, F708516	0

Analyst Initials R

Reviewer Initials R 8/25/17

- | | | | | |
|--|--|--|---|-------------------------------------|
| 5b. Has the B/C section data been uploaded? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| QA/QC Data Checked | | | | |
| 6. RSD CF (≤ 15%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 7. The calibration curve included a minimum of 5 Standards | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. Do all calibration points pass acceptance criteria? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are qualifiers consistent with the data review flowcharts? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. Explain any items on the failed data report from Element | | | | <input checked="" type="checkbox"/> |
| Comments: <u>NONE</u> | | | | |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: | | | | |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7h25009, 7h25010
Reviewer:	0 <i>AE ehs/r</i>	Dataset ID(s):	THg26002-170824-1
Date:	8/25/2017	WO (s) #:	VARIOUS
Batch #(s):	F708455, F708516		0

Analyst Initials *AE* Reviewer Initials *AE ehs/r*

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
- Files located at:** \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs
- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/11/17, 1/27/17 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>4/27/17, 5/9/17</u> LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>4/27/17, 5/9/17</u> LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

Reviewed 11/14/2017
Elizabeth Penta
Wood. PLC

AMEC FOSTER WHEELER

USDC Penobscot

Level IV Data Package

Laboratory SDG:

1708240

PO#

C012505850

November 13, 2017

AMEC Foster Wheeler

USDC Penobscot

Laboratory SDG: 1708240

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November 13, 2017

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MM-MR_INT_17HC001_080117_POL_01_WB	1708240-01	Tissue	01-Aug-17 11:00	08-Aug-17 09:30
MM-MR_INT_17HC001_080117_POL_02_WB	1708240-02	Tissue	01-Aug-17 11:00	08-Aug-17 09:30
MM-MR_INT_17HC001_080117_POL_03_WB	1708240-03	Tissue	01-Aug-17 11:00	08-Aug-17 09:30
MM-MR_INT_17HC001_080117_POL_04_WB	1708240-04	Tissue	01-Aug-17 11:00	08-Aug-17 09:30
MM-MR_INT_17HC001_080117_POL_05_WB	1708240-05	Tissue	01-Aug-17 11:00	08-Aug-17 09:30
PI-01_17HC001_080217_POL_01_WB	1708240-06	Tissue	02-Aug-17 19:10	08-Aug-17 09:30
PI-01_17HC001_080217_POL_02_WB	1708240-07	Tissue	02-Aug-17 19:10	08-Aug-17 09:30
PI-01_17HC001_080217_POL_03_WB	1708240-08	Tissue	02-Aug-17 19:10	08-Aug-17 09:30
PI-01_17HC001_080217_POL_04_WB	1708240-09	Tissue	02-Aug-17 19:10	08-Aug-17 09:30
PI-01_17HC001_080217_POL_05_WB	1708240-10	Tissue	02-Aug-17 19:10	08-Aug-17 09:30
SVE-02INT_17HC001_080217_POL_01_WB	1708240-11	Tissue	02-Aug-17 19:20	08-Aug-17 09:30
SVE-02INT_17HC001_080217_POL_02_WB	1708240-12	Tissue	02-Aug-17 19:20	08-Aug-17 09:30
SVE-02INT_17HC001_080217_POL_03_WB	1708240-13	Tissue	02-Aug-17 19:20	08-Aug-17 09:30
SVE-02INT_17HC001_080217_POL_04_WB	1708240-14	Tissue	02-Aug-17 19:20	08-Aug-17 09:30
SVE-02INT_17HC001_080217_POL_05_WB	1708240-15	Tissue	02-Aug-17 19:20	08-Aug-17 09:30

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King**Reported:**
13-Nov-17 15:11

REVISED REPORT (11/13/17)

Report was revised per client request. Client added Methyl Mercury analysis to all samples on 10/18/17.

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 8/8/2017 9:30:00 AM . The samples were received intact, on-ice within a sealed cooler at -43 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per client specific work instructions; EFSR-P-SP-WI11642.

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B (EFGS SOP2822).

Samples prepped in batch F708455 and analyzed in sequence 7H25009. Samples 1708240-10 and 1708240-15 were used as the source QC in batch F708455 per client request.

Samples were prepared and analyzed for methyl mercury by cold vapor gas chromatography atomic fluorescence spectrometry (CV-GC-AFS) in accordance with EPA 1630 (EFGS SOP2808).

Samples were prepped for Methyl Mercury in batches F710421 and F710422. These were analyzed in two sequences; 7J22009 and 7J24016. Samples 1708240-10 and 1708240-15 were used as the source QC sample in batch F710422.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Sample Receipt Checklist

EFGS Work Order: 1708240

Client: AMEC Foster Wheeler

Date & Time Received: 8/8/17 9:30 Date Labeled: 8/8/17 Labeled By: CS

Project: _____

Received By: LM Label Verified By: CSQ

of Coolers Received: 1 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>5225</u>	CF: <u>0.0</u> °C	Date/time: <u>8/8/17 9:30</u>	By: <u>LM</u>
Cooler 1: <u>-43.0C</u>	w/ CF: <u>-43.0C</u>	Cooler 4: °C	w/ CF: °C
Cooler 2: °C	w/ CF: °C	Cooler 5: °C	w/ CF: °C
Cooler 3: °C	w/ CF: °C	Cooler 6: °C	w/ CF: °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	Y	
Preservation type:	NA	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	N	

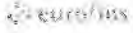
Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	NA	

Anomalies/Non-conformances (attach additional pages if needed):

1708240

APW FE >>> Eurofins FGS WA
WO 04A.53

Environmental Analysis Request/Chain of Custody



Client: AmeC Foster Wheeler / 511 Congress St. Suite 200 Portland, VE 04101		Matrix		Analyses Requested								For Lab Use Only					
Project Name#: USDC Benobscot		PN #: 30*G16SC52 04A 063		<input type="checkbox"/> Soil	<input type="checkbox"/> Sediment	<input type="checkbox"/> Tissue	<input type="checkbox"/> Ground	<input type="checkbox"/> Surface	Preservation Codes								SF # _____
Project Manager: Rod Pendleton		P.O. #:		<input type="checkbox"/> Popcorn	<input type="checkbox"/> NPDES	<input type="checkbox"/> Other: _____									SCR # _____		
Sampler: UB/DL		PWSID #:		<input type="checkbox"/> Water													
Phone #:		Quote #:		Collection		Composite	Total # of Containers	Hg (30 to 2 or 7 Freeze)									Remarks
State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Date	Time				Grab								
Sample Identification																	
1	MM-MR_INT_17HC001_080117_POL_01_WB	8/1/2017	1100	X			X	1	X						3.8 grams		
2	MM-MR_INT_17HC001_080117_POL_02_WB	8/1/2017	1100	X			X	1	X						4.2 grams		
3	MM-MR_INT_17HC001_080117_POL_03_WB	8/1/2017	1100	X			X	1	X						5.1 grams		
4	MM-MR_INT_17HC001_080117_POL_04_WB	8/1/2017	1100	X			X	1	X						5 grams		
5	MM-MR_INT_17HC001_080117_POL_05_WB	8/1/2017	1100	X			X	1	X						3.0 grams		
6																	
7																	
8																	
10																	
11																	
12																	
13																	
14																	
15																	
Turnaround Time Requested (TAT) (please check) Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>				Reinquished by: KCB		Date: 8-2-17		Time: 08:45		Received by: [Signature]		Date: 8/3/2017		Time: 2:45pm			
(Rush TAT is subject to laboratory approval and surcharges.)				Reinquished by: [Signature]		Date: 8/1/2017		Time: 9:30am		Received by: [Signature]		Date: 8/1/17		Time: 1:30			
Notes: 8106-7906-0947				Reinquished by:		Date:		Time:		Received by:		Date:		Time:			
FedEx # 3703 4444 8170				Reinquished by:		Date:		Time:		Received by: Las Intek		Date:		Time:			
# of Coolers _____				Reinquished by:		Date:		Time:		Received by: EPCP		Date:		Time:			
Sample disposal: Hold Equipment Blanks 1-4 until 30 days after delivery of report Report and LDD to: denise.king@amecflw.com / 978-682-6633				Reinquished by Commercial Carrier:		Date:		Time:		Received by:		Date:		Time:			
Data Package Options (please check if required) High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>				UFS _____		FedEx _____		Other _____		Temperature upon receipt: -43.0 °C		Date:		Time:			
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (yes, format _____)																	

Eurofins Frontier Global Sciences • 11720 Northcreek Pkwy N, Suite 400, Bothell, WA 98011 • 425-886-1996

For seal

1708240

APW FL >>> Eurofins EGS WA
W9 04A.03

Environmental Analysis Request/Chain of Custody

Client: Ameo Foster Wheeler / 811 Congress St, Suite 200 Portland, ME 04101		Project Name: USDC Fenobosol		PN #: 0610106052.04A.053		Matrix:		Analyses Requested				For Lab Use Only	
Project Manager: Rod Fenfleton		P.O. #:		PWSID #:		Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>		Preservation Codes				SF #:	
Sampler: JR/DL		Quote #:		State where samples were collected: ME (For Compliance) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Foliage <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/>						SCR #:	
Phone #:						Water <input type="checkbox"/> NPDES <input type="checkbox"/> LI <input type="checkbox"/>						Preservation Codes:	
						Other: <input type="checkbox"/> Tissue <input type="checkbox"/>						H-HC To Preserve	
						Total # of Containers:						H-HD B-Lab	
						HJ 10310 Ziegler 1/1/2020						H-HQ P-HQD	
												Other	
Sample Identification		Collection		Grab		Composite						Remarks	
	Date	Time											
1	P-01_17HC001_080217_POL_01_WB	8/2/2017	1910	X				X	1	X			4.0 grams
2	P-01_17HC001_080217_POL_02_WB	8/2/2017	1910	X				X	1	X			3.2 grams
3	P-01_17HC001_080217_POL_03_WB	8/2/2017	1910	X				X	1	X			3.1 grams
4	P-01_17HC001_080217_POL_04_WB	8/2/2017	1910	X				X	1	X			5.7 grams Use volume for MS/MSD
5	P-01_17HC001_080217_POL_05_WB	8/2/2017	1910	X				X	1	X			5.4 gram
6	SVE-02INT_17HC001_080217_POL_01_WB	8/2/2017	1920	X				X	1	X			5.3 gram
7	SVE-02INT_17HC001_080217_POL_02_WB	8/2/2017	1920	X				X	1	X			6.4 gram
8	SVE-02INT_17HC001_080217_POL_03_WB	8/2/2017	1920	X				X	1	X			6.2 gram
9	SVE-02INT_17HC001_080217_POL_04_WB	8/2/2017	1920	X				X	1	X			10.4 gram Use volume for MS/MSD
10	SVE-02INT_17HC001_080217_POL_05_WB	8/2/2017	1920	X				X	1	X			
11													
12													
13													
14													
15													
Turnaround Time Requested (TAT) (please check)		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Relinquished by:		Date:		Time:		Received by:		Date:	
(Rush TAT is subject to laboratory approval and surcharges)				<i>[Signature]</i>		8/3/2017		1630		<i>[Signature]</i>		8/4/2017 4:50pm	
Notes:		8106-7906-0942		Relinquished by:		Date:		Time:		Received by:		Date:	
FedEx # 70153448042		# of Coolers: 1		<i>[Signature]</i>		8/7/2017		9:30am		<i>[Signature]</i>		8/8/17 9:30	
Remove disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report		Report and EDD to: don@kingamech.com / 378-662 6632		Relinquished by:		Date:		Time:		Received by:		Date:	
										Las Mkt			
Data Package Options (please check if required)		High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		Relinquished by:		Date:		Time:		Received by:		Date:	
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, to mat:										SPES			
				Relinquished by Commercial Carrier:		Date:		Time:		Received by:		Date:	
				UPS _____ FedEx _____ Other _____						Temperature upon receipt: 43.0 °C			

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For Seal



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

MM-MR_INT_17HC001_080117_POL_01_WB
1708240-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion

Methyl Mercury (as Mercury)	7.5	0.5	1.9	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	53.8	0.424	3.79	ng/g	100	F708455	16-Aug-17	7H25009	24-Aug-17	EPA 1631B	
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The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

MM-MR_INT_17HC001_080117_POL_02_WB
1708240-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	4.1	0.4	1.8	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	39.9	0.445	3.97	ng/g	100	F708455	16-Aug-17	7H25009	24-Aug-17	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

MM-MR_INT_17HC001_080117_POL_03_WB
1708240-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	5.7	0.5	1.8	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	37.4	0.390	3.48	ng/g	100	F708455	16-Aug-17	7H25009	24-Aug-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

MM-MR_INT_17HC001_080117_POL_04_WB
1708240-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	7.7	0.5	1.8	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	59.2	0.438	3.91	ng/g	100	F708455	16-Aug-17	7H25009	24-Aug-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

MM-MR_INT_17HC001_080117_POL_05_WB
1708240-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	6.1	0.5	1.9	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	54.5	0.439	3.92	ng/g	100	F708455	16-Aug-17	7H25009	24-Aug-17	EPA 1631B	



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

PI-01_17HC001_080217_POL_01_WB
1708240-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	16.9	0.5	2.0	ng/g	500	F710422	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	37.1	0.398	3.55	ng/g	100	F708455	16-Aug-17	7H25009	24-Aug-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

PI-01_17HC001_080217_POL_02_WB
1708240-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	5.9	0.5	1.8	ng/g	500	F710422	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	45.5	0.375	3.35	ng/g	100	F708455	16-Aug-17	7H25009	24-Aug-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

PI-01_17HC001_080217_POL_03_WB
1708240-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	11.6	0.5	1.9	ng/g	500	F710422	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	33.2	0.384	3.43	ng/g	100	F708455	16-Aug-17	7H25009	24-Aug-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

PI-01_17HC001_080217_POL_04_WB
1708240-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	4.6	0.5	1.9	ng/g	500	F710422	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	21.8	0.427	3.81	ng/g	100	F708455	16-Aug-17	7H25009	24-Aug-17	EPA 1631B	

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Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

PI-01_17HC001_080217_POL_05_WB
1708240-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	16.0	0.5	1.8	ng/g	500	F710422	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	42.0	0.415	3.70	ng/g	100	F708455	16-Aug-17	7H25009	24-Aug-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

SVE-02INT_17HC001_080217_POL_01_WB
1708240-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	12.6	0.4	1.7	ng/g	500	F710422	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	28.9	0.383	3.42	ng/g	100	F708455	16-Aug-17	7H25009	24-Aug-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

SVE-02INT_17HC001_080217_POL_02_WB
1708240-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	9.7	0.5	1.9	ng/g	500	F710422	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	23.9	0.385	3.44	ng/g	100	F708455	16-Aug-17	7H25009	24-Aug-17	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

SVE-02INT_17HC001_080217_POL_03_WB
1708240-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	8.7	0.5	1.9	ng/g	500	F710422	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	24.7	0.382	3.41	ng/g	100	F708455	16-Aug-17	7H25009	24-Aug-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

SVE-02INT_17HC001_080217_POL_04_WB
1708240-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	9.3	0.5	1.9	ng/g	500	F710422	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	22.1	0.420	3.75	ng/g	100	F708455	16-Aug-17	7H25009	24-Aug-17	EPA 1631B	

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

SVE-02INT_17HC001_080217_POL_05_WB
1708240-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion											
Methyl Mercury (as Mercury)	11.1	0.5	1.9	ng/g	500	F710422	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	25.0	0.445	3.98	ng/g	100	F708455	16-Aug-17	7H25009	24-Aug-17	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7H25009 - F708455											
Cal Standard (7H25009-CAL1)					Prepared & Analyzed: 24-Aug-17						
Mercury	0.527	-		ng/L	0.50100		105				
Cal Standard (7H25009-CAL2)					Prepared & Analyzed: 24-Aug-17						
Mercury	1.007	-		ng/L	1.0020		101				
Cal Standard (7H25009-CAL3)					Prepared & Analyzed: 24-Aug-17						
Mercury	4.855	-		ng/L	5.0100		96.9				
Cal Standard (7H25009-CAL4)					Prepared & Analyzed: 24-Aug-17						
Mercury	19.79	-		ng/L	20.040		98.8				
Cal Standard (7H25009-CAL5)					Prepared & Analyzed: 24-Aug-17						
Mercury	39.13	-		ng/L	40.080		97.6				
Calibration Blank (7H25009-CCB1)					Prepared & Analyzed: 24-Aug-17						
Mercury	0.071	-		ng/L							
Calibration Blank (7H25009-CCB2)					Prepared & Analyzed: 24-Aug-17						
Mercury	0.109	-		ng/L							
Calibration Blank (7H25009-CCB3)					Prepared & Analyzed: 24-Aug-17						
Mercury	0.180	-		ng/L							
Calibration Blank (7H25009-CCB4)					Prepared & Analyzed: 24-Aug-17						
Mercury	0.065	-		ng/L							
Calibration Check (7H25009-CCV1)					Prepared & Analyzed: 24-Aug-17						
Mercury	4.914	-		ng/L	5.0000		98.3	77-123			

Eurofins Frontier Global Sciences, Inc.

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7H25009 - F708455

Calibration Check (7H25009-CCV2) Prepared & Analyzed: 24-Aug-17

Mercury	5.137	-		ng/L	5.0000		103	77-123			
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Calibration Check (7H25009-CCV3) Prepared & Analyzed: 24-Aug-17

Mercury	5.132	-		ng/L	5.0000		103	77-123			
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Calibration Check (7H25009-CCV4) Prepared & Analyzed: 24-Aug-17

Mercury	4.991	-		ng/L	5.0000		99.8	77-123			
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Instrument Blank (7H25009-IBL1) Prepared & Analyzed: 24-Aug-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7H25009-IBL2) Prepared & Analyzed: 24-Aug-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7H25009-IBL3) Prepared & Analyzed: 24-Aug-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7H25009-ICV1) Prepared & Analyzed: 24-Aug-17

Mercury	5.240	-		ng/L	5.0000		105	79-121			
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Batch 7J22009 - F710421

Cal Standard (7J22009-CAL1) Prepared & Analyzed: 20-Oct-17

Methyl Mercury (as Mercury)	0.04	-		ng/L	0.050050		88.9				
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Cal Standard (7J22009-CAL2) Prepared & Analyzed: 20-Oct-17

Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		95.8				
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Amy Goodall, Project Manager



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J22009 - F710421

Cal Standard (7J22009-CAL3)						Prepared & Analyzed: 20-Oct-17					
Methyl Mercury (as Mercury)	1.1	-		ng/L	1.0010		108				
Cal Standard (7J22009-CAL4)						Prepared & Analyzed: 20-Oct-17					
Methyl Mercury (as Mercury)	2.0	-		ng/L	2.0020		99.6				
Cal Standard (7J22009-CAL5)						Prepared & Analyzed: 20-Oct-17					
Methyl Mercury (as Mercury)	4.3	-		ng/L	4.0040		107				
Calibration Blank (7J22009-CCB1)						Prepared & Analyzed: 20-Oct-17					
Methyl Mercury (as Mercury)	0.003	-		ng/L							
Calibration Blank (7J22009-CCB2)						Prepared & Analyzed: 20-Oct-17					
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
Calibration Blank (7J22009-CCB3)						Prepared & Analyzed: 20-Oct-17					
Methyl Mercury (as Mercury)	0.002	-		ng/L							
Calibration Blank (7J22009-CCB4)						Prepared & Analyzed: 20-Oct-17					
Methyl Mercury (as Mercury)	0.002	-		ng/L							
Calibration Blank (7J22009-CCB5)						Prepared & Analyzed: 20-Oct-17					
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
Calibration Blank (7J22009-CCB6)						Prepared: 20-Oct-17 Analyzed: 21-Oct-17					
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
Calibration Blank (7J22009-CCB7)						Prepared: 20-Oct-17 Analyzed: 21-Oct-17					
Methyl Mercury (as Mercury)	0.0	-		ng/L							U

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J22009 - F710421

Calibration Check (7J22009-CCV1)											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.4	67-133			
Calibration Check (7J22009-CCV2)											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.6	67-133			
Calibration Check (7J22009-CCV3)											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	67-133			
Calibration Check (7J22009-CCV4)											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		95.1	67-133			
Calibration Check (7J22009-CCV5)											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		97.8	67-133			
Calibration Check (7J22009-CCV6)											
Prepared: 20-Oct-17 Analyzed: 21-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		90.0	67-133			
Calibration Check (7J22009-CCV7)											
Prepared: 20-Oct-17 Analyzed: 21-Oct-17											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		86.6	67-133			
Instrument Blank (7J22009-IBL1)											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U
Initial Cal Blank (7J22009-ICB1)											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.006	-		ng/L							
Initial Cal Check (7J22009-ICV1)											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	69-131			

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J24016 - F710422

Cal Standard (7J24016-CAL1)						Prepared & Analyzed: 23-Oct-17					
Methyl Mercury (as Mercury)	0.04	-		ng/L	0.050050		84.8				
Cal Standard (7J24016-CAL2)						Prepared & Analyzed: 23-Oct-17					
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		91.3				
Cal Standard (7J24016-CAL3)						Prepared & Analyzed: 23-Oct-17					
Methyl Mercury (as Mercury)	1.2	-		ng/L	1.0010		115				
Cal Standard (7J24016-CAL4)						Prepared & Analyzed: 23-Oct-17					
Methyl Mercury (as Mercury)	2.0	-		ng/L	2.0020		101				
Cal Standard (7J24016-CAL5)						Prepared & Analyzed: 23-Oct-17					
Methyl Mercury (as Mercury)	4.3	-		ng/L	4.0040		108				
Calibration Blank (7J24016-CCB1)						Prepared & Analyzed: 23-Oct-17					
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
Calibration Blank (7J24016-CCB2)						Prepared & Analyzed: 23-Oct-17					
Methyl Mercury (as Mercury)	0.003	-		ng/L							
Calibration Blank (7J24016-CCB3)						Prepared & Analyzed: 23-Oct-17					
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
Calibration Blank (7J24016-CCB4)						Prepared & Analyzed: 23-Oct-17					
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
Calibration Blank (7J24016-CCB5)						Prepared & Analyzed: 23-Oct-17					
Methyl Mercury (as Mercury)	0.0	-		ng/L							U

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7J24016 - F710422

Calibration Blank (7J24016-CCB6)												Prepared & Analyzed: 23-Oct-17	
Methyl Mercury (as Mercury)	0.0	-		ng/L								U	
Calibration Check (7J24016-CCV1)												Prepared & Analyzed: 23-Oct-17	
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		96.5	67-133					
Calibration Check (7J24016-CCV2)												Prepared & Analyzed: 23-Oct-17	
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		87.4	67-133					
Calibration Check (7J24016-CCV3)												Prepared & Analyzed: 23-Oct-17	
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.1	67-133					
Calibration Check (7J24016-CCV4)												Prepared & Analyzed: 23-Oct-17	
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		96.6	67-133					
Calibration Check (7J24016-CCV5)												Prepared & Analyzed: 23-Oct-17	
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	67-133					
Calibration Check (7J24016-CCV6)												Prepared & Analyzed: 23-Oct-17	
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	67-133					
Instrument Blank (7J24016-IBL1)												Prepared & Analyzed: 23-Oct-17	
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L								U	
Initial Cal Blank (7J24016-ICB1)												Prepared & Analyzed: 23-Oct-17	
Methyl Mercury (as Mercury)	0.003	-		ng/L									
Initial Cal Check (7J24016-ICV1)												Prepared & Analyzed: 23-Oct-17	
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	69-131					

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AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F708455 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F708455-BLK1) Prepared: 16-Aug-17 Analyzed: 24-Aug-17											
Mercury	0.140	0.090	0.800	ng/g							J
Blank (F708455-BLK2) Prepared: 16-Aug-17 Analyzed: 24-Aug-17											
Mercury	0.099	0.090	0.800	ng/g							J
Blank (F708455-BLK3) Prepared: 16-Aug-17 Analyzed: 24-Aug-17											
Mercury	0.151	0.090	0.800	ng/g							J
Blank (F708455-BLK4) Prepared: 16-Aug-17 Analyzed: 24-Aug-17											
Mercury	ND	0.083	0.737	ng/g							U
Blank (F708455-BLK5) Prepared: 16-Aug-17 Analyzed: 24-Aug-17											
Mercury	ND	0.080	0.713	ng/g							U
LCS (F708455-BS1) Prepared: 16-Aug-17 Analyzed: 24-Aug-17											
Mercury	8.183	0.090	0.800	ng/g	8.0160		102	75-125			
LCS (F708455-BS2) Prepared: 16-Aug-17 Analyzed: 24-Aug-17											
Mercury	349.8	3.47	31.0	ng/g	382.50		91.5	75-125			
LCS Dup (F708455-BSD1) Prepared: 16-Aug-17 Analyzed: 24-Aug-17											
Mercury	7.567	0.090	0.800	ng/g	8.0160		94.4	75-125	7.83	24	
Duplicate (F708455-DUP1) Source: 1708119-06RE1 Prepared: 16-Aug-17 Analyzed: 24-Aug-17											
Mercury	50.63	0.394	3.52	ng/g		43.92			14.2	24	
Matrix Spike (F708455-MS1) Source: 1708119-06RE1 Prepared: 16-Aug-17 Analyzed: 24-Aug-17											
Mercury	421.5	1.79	16.0	ng/g	399.52	43.92	94.5	71-125			

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: WO-04A-050 Project Manager: Denise King	Reported: 13-Nov-17 15:11
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F708455 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike (F708455-MS2)		Source: 1708240-10			Prepared: 16-Aug-17 Analyzed: 24-Aug-17						
Mercury	393.0	1.64	14.6	ng/g	364.96	42.03	96.2	71-125			
Matrix Spike (F708455-MS3)		Source: 1708240-15			Prepared: 16-Aug-17 Analyzed: 24-Aug-17						
Mercury	394.0	1.72	15.4	ng/g	384.32	24.96	96.0	71-125			
Matrix Spike Dup (F708455-MSD1)		Source: 1708119-06RE1			Prepared: 16-Aug-17 Analyzed: 24-Aug-17						
Mercury	380.7	1.59	14.2	ng/g	354.74	43.92	94.9	71-125	0.446	24	
Matrix Spike Dup (F708455-MSD2)		Source: 1708240-10			Prepared: 16-Aug-17 Analyzed: 24-Aug-17						
Mercury	407.3	1.67	14.9	ng/g	372.02	42.03	98.2	71-125	2.09	24	
Matrix Spike Dup (F708455-MSD3)		Source: 1708240-15			Prepared: 16-Aug-17 Analyzed: 24-Aug-17						
Mercury	385.5	1.70	15.2	ng/g	379.22	24.96	95.1	71-125	0.985	24	

Batch F710421 - EFGS-010 KOH/Methanol Hg Digestion

Blank (F710421-BLK8)					Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
Blank (F710421-BLK9)					Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
Blank (F710421-BLKA)					Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
Blank (F710421-BLKB)					Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	ND	0.4	1.8	ng/g							F-03, U



AMEC Foster Wheeler
271 Mill Road
Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710421 - EFGS-010 KOH/Methanol Hg Digestion

Blank (F710421-BLKC)					Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	ND	0.5	1.9	ng/g							F-03, U
Blank (F710421-BLKD)					Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	ND	0.4	1.8	ng/g							F-03, U
Blank (F710421-BLKE)					Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	ND	0.5	1.8	ng/g							F-03, U
LCS (F710421-BS3)					Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	281.7	2.0	7.9	ng/g	322.00		87.5	70-130			
LCS Dup (F710421-BSD3)					Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	281.2	2.0	7.8	ng/g	322.00		87.3	70-130	0.189	25	
Duplicate (F710421-DUP2)					Source: 1708118-01RE1 Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	9.5	0.5	1.9	ng/g		9.9			3.87	35	
Matrix Spike (F710421-MS3)					Source: 1708118-01RE1 Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	52.4	0.5	1.9	ng/g	38.206	9.9	111	65-130			
Matrix Spike (F710421-MS4)					Source: 1708241-01RE1 Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	47.9	0.5	1.8	ng/g	36.400	6.2	115	65-130			
Matrix Spike Dup (F710421-MSD3)					Source: 1708118-01RE1 Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	51.7	0.5	2.0	ng/g	39.102	9.9	107	65-130	3.78	35	
Matrix Spike Dup (F710421-MSD4)					Source: 1708241-01RE1 Prepared: 19-Oct-17 Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	49.1	0.5	1.9	ng/g	37.774	6.2	114	65-130	0.794	35	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: WO-04A-050 Project Manager: Denise King	Reported: 13-Nov-17 15:11
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F710422 - EFGS-010 KOH/Methanol Hg Digestion											
Blank (F710422-BLK1) Prepared: 19-Oct-17 Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
Blank (F710422-BLK2) Prepared: 19-Oct-17 Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
Blank (F710422-BLK3) Prepared: 19-Oct-17 Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
Blank (F710422-BLK4) Prepared: 19-Oct-17 Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	ND	0.4	1.7	ng/g							FB, U
LCS (F710422-BS1) Prepared: 19-Oct-17 Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	305.3	2.0	7.9	ng/g	322.00		94.8	70-130			
LCS Dup (F710422-BSD1) Prepared: 19-Oct-17 Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	319.2	2.0	7.9	ng/g	322.00		99.1	70-130	4.42	25	
Duplicate (F710422-DUP1) Source: 1708240-10 Prepared: 19-Oct-17 Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	15.1	0.4	1.8	ng/g		16.0			5.77	35	
Matrix Spike (F710422-MS1) Source: 1708240-10 Prepared: 19-Oct-17 Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	53.5	0.5	1.8	ng/g	35.878	16.0	104	65-130			
Matrix Spike (F710422-MS2) Source: 1708240-15 Prepared: 19-Oct-17 Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	49.9	0.5	1.9	ng/g	37.491	11.1	103	65-130			
Matrix Spike Dup (F710422-MSD1) Source: 1708240-10 Prepared: 19-Oct-17 Analyzed: 23-Oct-17											
Methyl Mercury (as Mercury)	58.8	0.5	1.9	ng/g	37.491	16.0	114	65-130	8.93	35	





AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: WO-04A-050 Project Manager: Denise King	Reported: 13-Nov-17 15:11
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F710422 - EFGS-010 KOH/Methanol Hg Digestion

Matrix Spike Dup (F710422-MSD2)	Source: 1708240-15		Prepared: 19-Oct-17 Analyzed: 23-Oct-17								
Methyl Mercury (as Mercury)	45.1	0.5	1.8	ng/g	36.268	11.1	93.6	65-130	9.98	35	

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Chelmsford MA, 01824

Project: 2017 Penobscot Biota
Project Number: WO-04A-050
Project Manager: Denise King

Reported:
13-Nov-17 15:11

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- FB This blank is a filtration blank. Data is reported for informational purposes only.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

Analysis Datasheet for Total Mercury

Date of Analysis: August 24, 2017
 Instrument #: Hg2600-2
 LIMS Sequence #: 7H25009, 7H25010

Analyst: BC
 Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	91.23 units	182.46	84.59 units	169.19	105.4 %Rec
SEQ-CAL2	1	1.00 ng/L	168.31 units	168.31	161.67 units	161.67	100.7 %Rec
SEQ-CAL3	1	5.00 ng/L	785.97 units	157.19	779.33 units	155.87	97.1 %Rec
SEQ-CAL4	1	20.00 ng/L	3183.40 units	159.17	3176.76 units	158.84	99.0 %Rec
SEQ-CAL5	1	40.00 ng/L	6288.11 units	157.20	6281.47 units	157.04	97.8 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF Corr. St Dev RF Corr. RSD CF Uncorr. Mean RF
 160.52 +/- 5.32 3.3% RSD 164.87

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.64 units	±2.75	0.04 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.626 ng/L	±0.345
BLK	2	3	10.919 ng/L	±3.029
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE
 PEER-REVIEWED

INITIALS: BC 8/25/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB				Comments		
		Type	LabNumber							Correction?	RESP	InitialResult	FinalResult		InitialUnits	
Hg2600-2	BC	CAL	SEQ-IBL1	1	8/24/2017 8:21:52	83821-1.RAW	8:21:52 AM	9.16				2.5	0.016	0.016	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	8/24/2017 8:26:00	83822-1.RAW	8:26:00 AM	3.71				-2.9	-0.018	-0.018	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	8/24/2017 8:30:09	83823-1.RAW	8:30:09 AM	7.04				0.4	0.003	0.003	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	8/24/2017 8:34:17	83824-1.RAW	8:34:17 AM	91.23				84.6	0.527	0.527	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	8/24/2017 8:38:26	83825-1.RAW	8:38:26 AM	168.31				161.7	1.007	1.007	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	8/24/2017 8:42:34	83826-1.RAW	8:42:34 AM	785.97				779.3	4.855	4.855	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	8/24/2017 8:46:43	83827-1.RAW	8:46:43 AM	3183.40				3176.8	19.790	19.790	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	8/24/2017 8:50:51	83828-1.RAW	8:50:51 AM	6288.11				6281.5	39.132	39.132	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	8/24/2017 8:54:59	83829-1.RAW	8:54:59 AM	847.75				841.1	5.240	5.240	ng/L	
Hg2600-2	BC	SAM	ws		8/24/2017 9:13:32	83830-1.RAW	9:13:32 AM	64.78		x		58.1	0.362	0.000	ng/L	
Hg2600-2	BC	BLK	F708455-BLK1	20	8/24/2017 9:17:41	83831-1.RAW	9:17:41 AM	20.68		1		14.0	0.087	1.750	ng/L	
Hg2600-2	BC	BLK	F708455-BLK2	20	8/24/2017 9:21:49	83832-1.RAW	9:21:49 AM	16.55		1		9.9	0.062	1.235	ng/L	
Hg2600-2	BC	BLK	F708455-BLK3	20	8/24/2017 9:25:58	83833-1.RAW	9:25:58 AM	21.82		1		15.2	0.095	1.892	ng/L	
Hg2600-2	BC	SAM	*F708455-BLK4	20	8/24/2017 9:30:06	83834-1.RAW	9:30:06 AM	11.47		1		4.8	-0.051	-1.023	ng/L	
Hg2600-2	BC	SAM	*F708455-BLK5	20	8/24/2017 9:34:14	83835-1.RAW	9:34:14 AM	16.86		1		10.2	-0.018	-0.352	ng/L	
Hg2600-2	BC	SAM	F708455-BS1	20	8/24/2017 9:38:23	83836-1.RAW	9:38:23 AM	840.69		1		834.1	5.115	102.293	ng/L	
Hg2600-2	BC	SAM	F708455-BSD1	20	8/24/2017 9:42:31	83837-1.RAW	9:42:31 AM	778.85		1		772.2	4.729	94.588	ng/L	
Hg2600-2	BC	SAM	F708455-BS2	400	8/24/2017 9:46:40	83838-1.RAW	9:46:40 AM	912.76		1		906.1	5.641	2256.340	ng/L	
Hg2600-2	BC	SAM	1708371-04	400	8/24/2017 9:50:48	83839-1.RAW	9:50:48 AM	1005.91		1		999.3	6.221	2488.460	ng/L	
Hg2600-2	BC	SAM	1708119-06RE1	100	8/24/2017 9:54:56	83840-1.RAW	9:54:56 AM	893.61		1		887.0	5.509	550.936	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	8/24/2017 9:59:05	83841-1.RAW	9:59:05 AM	795.41				788.8	4.914	4.914	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	8/24/2017 10:03:13	83842-1.RAW	10:03:13 AM	18.11				11.5	0.071	0.071	ng/L	
Hg2600-2	BC	SAM	1708240-01	100	8/24/2017 10:07:22	83843-1.RAW	10:07:22 AM	1150.74		1		1144.1	7.111	711.121	ng/L	
Hg2600-2	BC	SAM	1708240-02	100	8/24/2017 10:11:30	83844-1.RAW	10:11:30 AM	815.75		1		809.1	5.024	502.431	ng/L	
Hg2600-2	BC	SAM	1708240-03	100	8/24/2017 10:15:39	83845-1.RAW	10:15:39 AM	871.28		1		864.6	5.370	537.025	ng/L	
Hg2600-2	BC	SAM	1708240-04	100	8/24/2017 10:19:47	83846-1.RAW	10:19:47 AM	1225.47		1		1218.8	7.577	757.676	ng/L	
Hg2600-2	BC	SAM	1708240-05	100	8/24/2017 10:23:55	83847-1.RAW	10:23:55 AM	1127.21		1		1120.6	6.965	696.463	ng/L	
Hg2600-2	BC	SAM	1708240-06	100	8/24/2017 10:28:04	83848-1.RAW	10:28:04 AM	846.50		1		839.9	5.216	521.588	ng/L	
Hg2600-2	BC	SAM	1708240-07	100	8/24/2017 10:32:12	83849-1.RAW	10:32:12 AM	1101.06		1		1094.4	6.802	680.172	ng/L	
Hg2600-2	BC	SAM	1708240-08	100	8/24/2017 10:36:21	83850-1.RAW	10:36:21 AM	785.12		1		778.5	4.833	483.349	ng/L	
Hg2600-2	BC	SAM	1708240-09	100	8/24/2017 10:40:29	83851-1.RAW	10:40:29 AM	468.25		1		461.6	2.859	285.948	ng/L	
Hg2600-2	BC	SAM	1708240-10	100	8/24/2017 10:44:37	83852-1.RAW	10:44:37 AM	920.43		1		913.8	5.676	567.644	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	8/24/2017 10:48:46	83853-1.RAW	10:48:46 AM	831.21				824.6	5.137	5.137	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	8/24/2017 10:52:54	83854-1.RAW	10:52:54 AM	24.10				17.5	0.109	0.109	ng/L	
Hg2600-2	BC	SAM	1708240-11	100	8/24/2017 10:57:03	83855-1.RAW	10:57:03 AM	687.81		1		681.2	4.227	422.728	ng/L	
Hg2600-2	BC	SAM	1708240-12	100	8/24/2017 11:01:11	83856-1.RAW	11:01:11 AM	566.44		1		559.8	3.471	347.117	ng/L	
Hg2600-2	BC	SAM	1708240-13	100	8/24/2017 11:05:19	83857-1.RAW	11:05:19 AM	590.08		1		583.4	3.618	361.845	ng/L	
Hg2600-2	BC	SAM	1708240-14	100	8/24/2017 11:09:28	83858-1.RAW	11:09:28 AM	481.96		1		475.3	2.945	294.489	ng/L	
Hg2600-2	BC	SAM	1708240-15	100	8/24/2017 11:13:36	83859-1.RAW	11:13:36 AM	513.12		1		506.5	3.139	313.900	ng/L	
Hg2600-2	BC	SAM	1708371-01	400	8/24/2017 11:17:45	83860-1.RAW	11:17:45 AM	2583.34		1		2576.7	16.048	6419.252	ng/L	
Hg2600-2	BC	SAM	1708371-02	400	8/24/2017 11:21:53	83861-1.RAW	11:21:53 AM	2535.14		1		2528.5	15.748	6299.142	ng/L	
Hg2600-2	BC	SAM	1708371-03	400	8/24/2017 11:26:02	83862-1.RAW	11:26:02 AM	2652.95		1		2646.3	16.482	6592.712	ng/L	
Hg2600-2	BC	SAM	F708455-DUP1	100	8/24/2017 11:30:10	83863-1.RAW	11:30:10 AM	1163.39		1		1156.8	7.190	719.002	ng/L	
Hg2600-2	BC	SAM	F708455-MS1	400	8/24/2017 11:34:18	83864-1.RAW	11:34:18 AM	2124.29		1		2117.7	13.188	5275.347	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	8/24/2017 11:38:27	83865-1.RAW	11:38:27 AM	830.37				823.7	5.132	5.132	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	8/24/2017 11:42:35	83866-1.RAW	11:42:35 AM	35.59				29.0	0.180	0.180	ng/L	
Hg2600-2	BC	SAM	F708455-MSD1	400	8/24/2017 11:46:44	83867-1.RAW	11:46:44 AM	2160.62		1		2154.0	13.415	5365.877	ng/L	
Hg2600-2	BC	SAM	F708455-MS2	400	8/24/2017 11:50:52	83868-1.RAW	11:50:52 AM	2167.86		1		2161.2	13.460	5383.919	ng/L	
Hg2600-2	BC	SAM	F708455-MSD2	400	8/24/2017 11:55:01	83869-1.RAW	11:55:01 AM	2204.30		1		2197.7	13.687	5474.723	ng/L	
Hg2600-2	BC	SAM	F708455-MS3	400	8/24/2017 11:59:09	83870-1.RAW	11:59:09 AM	2064.39		1		2057.8	12.815	5126.082	ng/L	
Hg2600-2	BC	SAM	F708455-MSD3	400	8/24/2017 12:03:17	83871-1.RAW	12:03:17 PM	2047.26		1		2040.6	12.708	5083.396	ng/L	
Hg2600-2	BC	SAM	ws		8/24/2017 12:12:05	83872-1.RAW	12:12:05 PM	102.71		x		96.1	0.599	0.000	ng/L	
Hg2600-2	BC	BLK	F708516-BLK1	100	8/24/2017 12:16:13	83873-1.RAW	12:16:13 PM	27.65		2		21.0	0.131	13.091	ng/L	
Hg2600-2	BC	BLK	F708516-BLK2	100	8/24/2017 12:20:21	83874-1.RAW	12:20:21 PM	26.23		2		19.6	0.122	12.206	ng/L	
Hg2600-2	BC	BLK	F708516-BLK3	100	8/24/2017 12:24:30	83875-1.RAW	12:24:30 PM	18.61		2		12.0	0.075	7.459	ng/L	
Hg2600-2	BC	SAM	F708516-BS1	400	8/24/2017 12:28:38	83876-1.RAW	12:28:38 PM	767.58		2		760.9	4.713	1885.273	ng/L	
Hg2600-2	BC	SAM	F708516-BSD1	400	8/24/2017 12:32:47	83877-1.RAW	12:32:47 PM	769.69		2		763.1	4.726	1890.531	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB					Comments	
		Type	LabNumber							Correction?	RESP	InitialResult	FinalResult	InitialUnits		
Hg2600-2	BC	CAL	SEQ-CCV4	1	8/24/2017 12:36:55	83878-1.RAW	12:36:55 PM	807.76				801.1	4.991	4.991	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	8/24/2017 12:41:04	83879-1.RAW	12:41:04 PM	17.05				10.4	0.065	0.065	ng/L	
Hg2600-2	BC	SAM	1708629-01	2500	8/24/2017 12:45:13	83880-1.RAW	12:45:13 PM	249.63	2			243.0	1.509	3773.545	ng/L	
Hg2600-2	BC	SAM	1708629-02	2500	8/24/2017 12:49:21	83881-1.RAW	12:49:21 PM	244.78	2			238.1	1.479	3698.009	ng/L	
Hg2600-2	BC	SAM	1708631-01	2500	8/24/2017 12:53:30	83882-1.RAW	12:53:30 PM	391.20	2			384.6	2.391	5978.406	ng/L	
Hg2600-2	BC	SAM	1708631-02	2500	8/24/2017 12:57:38	83883-1.RAW	12:57:38 PM	351.14	2			344.5	2.142	5354.497	ng/L	
Hg2600-2	BC	SAM	1708632-01	2500	8/24/2017 13:01:47	83884-1.RAW	1:01:47 PM	238.48	2			231.8	1.440	3599.891	ng/L	
Hg2600-2	BC	SAM	1708632-02	2500	8/24/2017 13:05:55	83885-1.RAW	1:05:55 PM	259.47	2			252.8	1.571	3926.796	ng/L	
Hg2600-2	BC	SAM	ws		8/24/2017 13:10:04	83886-1.RAW	1:10:04 PM	12.02		x		5.4	0.034	0.000	ng/L	
Hg2600-2	BC	SAM	ws		8/24/2017 13:14:12	83887-1.RAW	1:14:12 PM	12.99		x		6.4	0.040	0.000	ng/L	
Hg2600-2	BC	SAM	ws		8/24/2017 13:18:21	83888-1.RAW	1:18:21 PM	1.58		x		-5.1	-0.032	0.000	ng/L	
Hg2600-2	BC	SAM	ws		8/24/2017 13:22:29	83889-1.RAW	1:22:29 PM	14.98		x		8.3	0.052	0.000	ng/L	
Hg2600-2	BC	SAM	1708635-01	2500	8/24/2017 13:27:47	83890-2.RAW	1:27:47 PM	1544.68	2			1538.0	9.577	23943.108	ng/L	
Hg2600-2	BC	SAM	1708635-02	2500	8/24/2017 13:31:56	83891-1.RAW	1:31:56 PM	2127.42	2			2120.8	13.208	33018.905	ng/L	
Hg2600-2	BC	SAM	1708635-03	2500	8/24/2017 13:36:04	83892-1.RAW	1:36:04 PM	305.88	2			299.2	1.860	4649.602	ng/L	
Hg2600-2	BC	SAM	1708635-04	2500	8/24/2017 13:40:13	83893-1.RAW	1:40:13 PM	212.37	2			205.7	1.277	3193.244	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	8/24/2017 13:44:21	83894-1.RAW	1:44:21 PM	804.25				797.6	4.969	4.969	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	8/24/2017 13:48:30	83895-1.RAW	1:48:30 PM	18.81				12.2	0.076	0.076	ng/L	
Hg2600-2	BC	SAM	1708629-01B	100	8/24/2017 13:52:38	83896-1.RAW	1:52:38 PM	21.64	2			15.0	-0.016	-1.572	ng/L	
Hg2600-2	BC	SAM	1708629-02B	100	8/24/2017 13:56:47	83897-1.RAW	1:56:47 PM	31.64	2			25.0	0.047	4.658	ng/L	
Hg2600-2	BC	SAM	1708631-01B	100	8/24/2017 14:00:55	83898-1.RAW	2:00:55 PM	99.41	2			92.8	0.469	46.877	ng/L	
Hg2600-2	BC	SAM	1708631-02B	100	8/24/2017 14:05:04	83899-1.RAW	2:05:04 PM	23.68	2			17.0	-0.003	-0.301	ng/L	
Hg2600-2	BC	SAM	1708632-01B	100	8/24/2017 14:09:12	83900-1.RAW	2:09:12 PM	53.76	2			47.1	0.184	18.438	ng/L	
Hg2600-2	BC	SAM	1708632-02B	100	8/24/2017 14:13:20	83901-1.RAW	2:13:20 PM	43.58	2			36.9	0.121	12.096	ng/L	
Hg2600-2	BC	SAM	1708635-01B	100	8/24/2017 14:17:29	83902-1.RAW	2:17:29 PM	32.72	2			26.1	0.053	5.331	ng/L	
Hg2600-2	BC	SAM	1708635-02B	100	8/24/2017 14:21:37	83903-1.RAW	2:21:37 PM	21.48	2			14.8	-0.017	-1.672	ng/L	
Hg2600-2	BC	SAM	1708635-03B	100	8/24/2017 14:25:46	83904-1.RAW	2:25:46 PM	166.55	2			159.9	0.887	88.703	ng/L	
Hg2600-2	BC	SAM	1708635-04B	100	8/24/2017 14:29:54	83905-1.RAW	2:29:54 PM	33.70	2			27.1	0.059	5.941	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	8/24/2017 14:34:03	83906-1.RAW	2:34:03 PM	791.72				785.1	4.891	4.891	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	8/24/2017 14:38:11	83907-1.RAW	2:38:11 PM	17.84				11.2	0.070	0.070	ng/L	
Hg2600-2	BC	SAM	1708629-01C	1000	8/24/2017 14:42:19	83908-1.RAW	2:42:19 PM	1221.01	2			1214.4	7.554	7554.312	ng/L	
Hg2600-2	BC	SAM	1708629-02C	1000	8/24/2017 14:46:28	83909-1.RAW	2:46:28 PM	1237.39	2			1230.8	7.656	7656.355	ng/L	
Hg2600-2	BC	SAM	1708631-01C	1000	8/24/2017 14:50:36	83910-1.RAW	2:50:36 PM	1137.04	2			1130.4	7.031	7031.201	ng/L	
Hg2600-2	BC	SAM	1708631-02C	1000	8/24/2017 14:54:45	83911-1.RAW	2:54:45 PM	1198.88	2			1192.2	7.416	7416.448	ng/L	
Hg2600-2	BC	SAM	1708632-01C	1000	8/24/2017 14:58:53	83912-1.RAW	2:58:53 PM	1177.19	2			1170.6	7.281	7281.325	ng/L	
Hg2600-2	BC	SAM	1708632-02C	1000	8/24/2017 15:03:02	83913-1.RAW	3:03:02 PM	1272.91	2			1266.3	7.878	7877.635	ng/L	
Hg2600-2	BC	SAM	1708635-01C	2500	8/24/2017 15:07:10	83914-1.RAW	3:07:10 PM	1615.80	2			1609.2	10.020	25050.756	ng/L	
Hg2600-2	BC	SAM	1708635-02C	2500	8/24/2017 15:11:19	83915-1.RAW	3:11:19 PM	1637.46	2			1630.8	10.155	25388.096	ng/L	
Hg2600-2	BC	SAM	1708635-03C	2500	8/24/2017 15:15:27	83916-1.RAW	3:15:27 PM	1459.47	2			1452.8	9.046	22616.017	ng/L	
Hg2600-2	BC	SAM	1708635-04C	2500	8/24/2017 15:19:35	83917-1.RAW	3:19:35 PM	1561.77	2			1555.1	9.684	24209.274	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	8/24/2017 15:23:44	83918-1.RAW	3:23:44 PM	834.22				827.6	5.156	5.156	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	8/24/2017 15:27:52	83919-1.RAW	3:27:52 PM	29.92				23.3	0.145	0.145	ng/L	
Hg2600-2	BC	SAM	F708516-DUP1	2500	8/24/2017 15:32:01	83920-1.RAW	3:32:01 PM	268.47	2			261.8	1.627	4066.966	ng/L	
Hg2600-2	BC	SAM	F708516-MS1	2500	8/24/2017 15:36:10	83921-1.RAW	3:36:10 PM	1094.31	2			1087.7	6.772	16928.888	ng/L	
Hg2600-2	BC	SAM	F708516-MSD1	2500	8/24/2017 15:40:18	83922-1.RAW	3:40:18 PM	1039.44	2			1032.8	6.430	16074.323	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8	1	8/24/2017 15:44:26	83923-1.RAW	3:44:26 PM	809.99				803.4	5.005	5.005	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB8	1	8/24/2017 15:48:35	83924-1.RAW	3:48:35 PM	28.60				22.0	0.137	0.137	ng/L	

TotalMercury EPA1631
 Operat: BC
 BlankSi 6.6383
 Calib Eqn: Conc = (Area-6.638
 Run Date: 8/24/2017
 Blank SD: 2.751227084
 Method THg26002-170824-1
 R: 1
 Status: 1
 QC Warnings:6/QC E
 Run Time: 13:23:38
 Blank RSD%: 41.44480953
 CF SD: 5.316881524
 CF RSD%: 3.312279929

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean				0.00	4.74					83816-1.RAW	8:02:27	760.50	Clean	OK	1	
clean				0.00	0.01					83817-1.RAW	8:05:18	1.32	Clean	OK	1	
ws				6.64	0.02					83818-1.RAW	8:09:27	10.09	Sample	OK	1	
ws				6.64	0.02					83819-1.RAW	8:13:35	9.75	Sample	OK	1	
ws				6.64	0.00					83820-1.RAW	8:17:44	0.26	Sample	OK	1	
SEQ-IBL1	A1		1	0.00	0.06					83821-1.RAW	8:21:52	9.16	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.02					83822-1.RAW	8:26:00	3.71	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.04					83823-1.RAW	8:30:09	7.04	Sample	OK	1	
SEQ-CAL1	A4		1	6.64	0.53			105.40		83824-1.RAW	8:34:17	91.23	Sample	OK	1	
SEQ-CAL2	A5		1	6.64	1.01			100.72		83825-1.RAW	8:38:26	168.31	Sample	OK	1	
SEQ-CAL3	A6		1	6.64	4.86			97.10		83826-1.RAW	8:42:34	785.97	Sample	OK	1	
SEQ-CAL4	A7		1	6.64	19.79			98.95		83827-1.RAW	8:46:43	3183.40	Sample	OK	1	
SEQ-CAL5	A8		1	6.64	39.13			97.83		83828-1.RAW	8:50:51	6288.11	Sample	OK	1	
SEQ-ICV1	A9		1	6.64	5.24			104.80		83829-1.RAW	8:54:59	847.75	Sample	OK	1	
ws				6.64	0.36					83830-1.RAW	9:13:32	64.78	Sample	OK	1	
F708455-BLK1	A10		20	6.64	1.75					83831-1.RAW	9:17:41	20.68	Sample	OK	1	
F708455-BLK2	A11		20	6.64	1.23					83832-1.RAW	9:21:49	16.55	Sample	OK	1	
F708455-BLK3	A12		20	6.64	1.89					83833-1.RAW	9:25:58	21.82	Sample	OK	1	
F708455-BLK4	A13		20	6.64	0.60					83834-1.RAW	9:30:06	11.47	Sample	OK	1	
F708455-BLK5	A14		20	6.64	1.27					83835-1.RAW	9:34:14	16.86	Sample	OK	1	
F708455-BS1	A15		20	6.64	103.92					83836-1.RAW	9:38:23	840.69	Sample	OK	1	
F708455-BSD1	A16		20	6.64	96.21					83837-1.RAW	9:42:31	778.85	Sample	OK	1	
F708455-BS2	A17		400	6.64	2257.95					83838-1.RAW	9:46:40	912.76	Sample	OK	1	
1708371-04	A18		400	6.64	2490.07					83839-1.RAW	9:50:48	1005.91	Sample	OK	1	
1708119-06RE1	A19		100	6.64	552.56					83840-1.RAW	9:54:56	893.61	Sample	OK	1	
SEQ-CCV1	A20		1	6.64	4.91			98.28		83841-1.RAW	9:59:05	795.41	Sample	OK	1	
SEQ-CCB1	A21		1	6.64	0.07			0.00		83842-1.RAW	10:03:13	18.11	Sample	OK	1	
1708240-01	B1		100	6.64	712.74					83843-1.RAW	10:07:22	1150.74	Sample	OK	1	
1708240-02	B2		100	6.64	504.05					83844-1.RAW	10:11:30	815.75	Sample	OK	1	
1708240-03	B3		100	6.64	538.65					83845-1.RAW	10:15:39	871.28	Sample	OK	1	
1708240-04	B4		100	6.64	759.30					83846-1.RAW	10:19:47	1225.47	Sample	OK	1	
1708240-05	B5		100	6.64	698.08					83847-1.RAW	10:23:55	1127.21	Sample	OK	1	
1708240-06	B6		100	6.64	523.21					83848-1.RAW	10:28:04	846.50	Sample	OK	1	
1708240-07	B7		100	6.64	681.80					83849-1.RAW	10:32:12	1101.06	Sample	OK	1	
1708240-08	B8		100	6.64	484.97					83850-1.RAW	10:36:21	785.12	Sample	OK	1	
1708240-09	B9		100	6.64	287.57					83851-1.RAW	10:40:29	468.25	Sample	OK	1	
1708240-10	B10		100	6.64	569.27					83852-1.RAW	10:44:37	920.43	Sample	OK	1	
SEQ-CCV2	B11		1	6.64	5.14			102.74		83853-1.RAW	10:48:46	831.21	Sample	OK	1	
SEQ-CCB2	B12		1	6.64	0.11			0.00		83854-1.RAW	10:52:54	24.10	Sample	OK	1	
1708240-11	B13		100	6.64	424.35					83855-1.RAW	10:57:03	687.81	Sample	OK	1	
1708240-12	B14		100	6.64	348.74					83856-1.RAW	11:01:11	566.44	Sample	OK	1	
1708240-13	B15		100	6.64	363.47					83857-1.RAW	11:05:19	590.08	Sample	OK	1	
1708240-14	B16		100	6.64	296.11					83858-1.RAW	11:09:28	481.96	Sample	OK	1	
1708240-15	B17		100	6.64	315.52					83859-1.RAW	11:13:36	513.12	Sample	OK	1	
1708371-01	B18		400	6.64	6420.89					83860-1.RAW	11:17:45	2583.34	Sample	OK	1	
1708371-02	B19		400	6.64	6300.76					83861-1.RAW	11:21:53	2535.14	Sample	OK	1	
1708371-03	B20		400	6.64	6594.32					83862-1.RAW	11:26:02	2652.95	Sample	OK	1	
F708455-DUP1	B21		100	6.64	720.62					83863-1.RAW	11:30:10	1163.39	Sample	OK	1	
F708455-MS1	C1		400	6.64	5276.96			731.26		83864-1.RAW	11:34:18	2124.29	Sample	OK	1	

SEQ-CCV3	C2	1	6.64	5.13	102.63	83865-1.RAW	11:38:27	830.37	Sample	OK	1	
SEQ-CCB3	C3	1	6.64	0.18	0.00	83866-1.RAW	11:42:35	35.59	Sample	OK	1	
F708455-MSD1	C4	400	6.64	5367.49		83867-1.RAW	11:46:44	2160.62	Sample	OK	1	
F708455-MS2	C5	400	6.64	5385.55	100.30	83868-1.RAW	11:50:52	2167.86	Sample	OK	1	
F708455-MSD2	C6	400	6.64	5476.35		83869-1.RAW	11:55:01	2204.30	Sample	OK	1	
F708455-MS3	C7	400	6.64	5127.71	93.58	83870-1.RAW	11:59:09	2064.39	Sample	OK	1	
F708455-MSD3	C8	400	6.64	5085.01		83871-1.RAW	12:03:17	2047.26	Sample	OK	1	
ws			6.64	0.60		83872-1.RAW	12:12:05	102.71	Sample	OK	1	
F708516-BLK1	C9	100	6.64	13.09		83873-1.RAW	12:16:13	27.65	Sample	OK	1	
F708516-BLK2	C10	100	6.64	12.21		83874-1.RAW	12:20:21	26.23	Sample	OK	1	
F708516-BLK3	C11	100	6.64	7.46		83875-1.RAW	12:24:30	18.61	Sample	OK	1	
F708516-BS1	C12	400	6.64	1896.18		83876-1.RAW	12:28:38	767.58	Sample	OK	1	
F708516-BSD1	C13	400	6.64	1901.45		83877-1.RAW	12:32:47	769.69	Sample	OK	1	
SEQ-CCV4	C14	1	6.64	4.99	99.82	83878-1.RAW	12:36:55	807.76	Sample	OK	1	
SEQ-CCB4	C15	1	6.64	0.06	0.00	83879-1.RAW	12:41:04	17.05	Sample	OK	1	
1708629-01	C16	2500	6.64	3784.38		83880-1.RAW	12:45:13	249.63	Sample	OK	1	
1708629-02	C17	2500	6.64	3708.85		83881-1.RAW	12:49:21	244.78	Sample	OK	1	
1708631-01	C18	2500	6.64	5989.38		83882-1.RAW	12:53:30	391.20	Sample	OK	1	
1708631-02	C19	2500	6.64	5365.37		83883-1.RAW	12:57:38	351.14	Sample	OK	1	
1708632-01	C20	2500	6.64	3610.82		83884-1.RAW	13:01:47	238.48	Sample	OK	1	
1708632-02	C21	2500	6.64	3937.64		83885-1.RAW	13:05:55	259.47	Sample	OK	1	
ws			6.64	0.03		83886-1.RAW	13:10:04	12.02	Sample	OK	1	NO LOCATION
ws			6.64	0.04		83887-1.RAW	13:14:12	12.99	Sample	OK	1	NO LOCATION
ws			6.64	0.00		83888-1.RAW	13:18:21	1.58	Sample	OK	1	NO LOCATION
ws			6.64	0.05		83889-1.RAW	13:22:29	14.98	Sample	OK	1	NO LOCATION
1708635-01	A1	2500	6.64	23954.05		83890-2.RAW	13:27:47	1544.68	Sample	OK	1	
1708635-02	A2	2500	6.64	33029.76		83891-1.RAW	13:31:56	2127.42	Sample	OK	1	
1708635-03	A3	2500	6.64	4660.52		83892-1.RAW	13:36:04	305.88	Sample	OK	1	
1708635-04	A4	2500	6.64	3204.07		83893-1.RAW	13:40:13	212.37	Sample	OK	1	
SEQ-CCV5	A5	1	6.64	4.97	99.38	83894-1.RAW	13:44:21	804.25	Sample	OK	1	
SEQ-CCB5	A6	1	6.64	0.08	0.00	83895-1.RAW	13:48:30	18.81	Sample	OK	1	
1708629-01B	A7	100	6.64	9.35		83896-1.RAW	13:52:38	21.64	Sample	OK	1	
1708629-02B	A8	100	6.64	15.58		83897-1.RAW	13:56:47	31.64	Sample	OK	1	
1708631-01B	A9	100	6.64	57.80		83898-1.RAW	14:00:55	99.41	Sample	OK	1	
1708631-02B	A10	100	6.64	10.61		83899-1.RAW	14:05:04	23.68	Sample	OK	1	
1708632-01B	A11	100	6.64	29.36		83900-1.RAW	14:09:12	53.76	Sample	OK	1	
1708632-02B	A12	100	6.64	23.01		83901-1.RAW	14:13:20	43.58	Sample	OK	1	
1708635-01B	A13	100	6.64	16.25		83902-1.RAW	14:17:29	32.72	Sample	OK	1	
1708635-02B	A14	100	6.64	9.25		83903-1.RAW	14:21:37	21.48	Sample	OK	1	
1708635-03B	A15	100	6.64	99.62		83904-1.RAW	14:25:46	166.55	Sample	OK	1	
1708635-04B	A16	100	6.64	16.86		83905-1.RAW	14:29:54	33.70	Sample	OK	1	
SEQ-CCV6	A17	1	6.64	4.89	97.82	83906-1.RAW	14:34:03	791.72	Sample	OK	1	
SEQ-CCB6	A18	1	6.64	0.07	0.00	83907-1.RAW	14:38:11	17.84	Sample	OK	1	
1708629-01C	A19	1000	6.64	7565.24		83908-1.RAW	14:42:19	1221.01	Sample	OK	1	
1708629-02C	A20	1000	6.64	7667.28		83909-1.RAW	14:46:28	1237.39	Sample	OK	1	
1708631-01C	A21	1000	6.64	7042.09		83910-1.RAW	14:50:36	1137.04	Sample	OK	1	
1708631-02C	B1	1000	6.64	7427.37		83911-1.RAW	14:54:45	1198.88	Sample	OK	1	
1708632-01C	B2	1000	6.64	7292.24		83912-1.RAW	14:58:53	1177.19	Sample	OK	1	
1708632-02C	B3	1000	6.64	7888.52		83913-1.RAW	15:03:02	1272.91	Sample	OK	1	
1708635-01C	B4	2500	6.64	25061.59		83914-1.RAW	15:07:10	1615.80	Sample	OK	1	
1708635-02C	B5	2500	6.64	25398.96		83915-1.RAW	15:11:19	1637.46	Sample	OK	1	
1708635-03C	B6	2500	6.64	22626.87		83916-1.RAW	15:15:27	1459.47	Sample	OK	1	
1708635-04C	B7	2500	6.64	24220.18		83917-1.RAW	15:19:35	1561.77	Sample	OK	1	
SEQ-CCV7	B8	1	6.64	5.16	103.11	83918-1.RAW	15:23:44	834.22	Sample	OK	1	

SEQ-CCB7	B9	1	6.64	0.15	0.00	83919-1.RAW	15:27:52	29.92	Sample	OK	1
F708516-DUP1	B10	2500	6.64	4077.80		83920-1.RAW	15:32:01	268.47	Sample	OK	1
F708516-MS1	B11	2500	6.64	16939.85	415.31	83921-1.RAW	15:36:10	1094.31	Sample	OK	1
F708516-MSD1	B12	2500	6.64	16085.20		83922-1.RAW	15:40:18	1039.44	Sample	OK	1
SEQ-CCV8	B13		6.64	5.00	100.09	83923-1.RAW	15:44:26	809.99	Sample	OK	1
SEQ-CCB8	B14		6.64	0.14	0.00	83924-1.RAW	15:48:35	28.60	Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE
PEER-REVIEWED

7H25010



INITIALS: *a* 8/25/17 Analyzed: 8/24/2017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H25010-IBL1 ✓	QC	1			
7H25010-IBL2 ✓	QC	2			
7H25010-IBL3 ✓	QC	3			
7H25010-CAL1 ✓	QC	4	1704505 ✓		
7H25010-CAL2 ✓	QC	5	1704506 ✓		
7H25010-CAL3 ✓	QC	6	1704507 ✓		
7H25010-CAL4 ✓	QC	7	1704508 ✓		
7H25010-CAL5 ✓	QC	8	1704509 ✓		
7H25010-ICV1 ✓	QC	9	1703679 ✓		
7H25010-CCV1 ✓	QC	10	1703679 ✓		
7H25010-CCB1 ✓	QC	11			
7H25010-CCV2 ✓	QC	12	1703679 ✓		
7H25010-CCB2 ✓	QC	13			
7H25010-CCV3 ✓	QC	14	1703679 ✓		
7H25010-CCB3 ✓	QC	15			
F708516-BLK1 ✓	QC	16			
F708516-BLK2 ✓	QC	17			
F708516-BLK3 ✓	QC	18			
F708516-BS1 ✓	QC	19			
F708516-BSD1 ✓	QC	20			
7H25010-CCV4 ✓	QC	21	1703679 ✓		
7H25010-CCB4 ✓	QC	22			
1708629-01 ✓	Hg_FSTM_TRAP_A	23			
1708629-02 ✓	Hg_FSTM_TRAP_A	24			
1708631-01 ✓	Hg_FSTM_TRAP_A	25			
1708631-02 ✓	Hg_FSTM_TRAP_A	26			
1708632-01 ✓	Hg_FSTM_TRAP_A	27			
1708632-02 ✓	Hg_FSTM_TRAP_A	28			
1708635-01 ✓	Hg_FSTM_TRAP_A	29			AFS - Take photos of trap if heavy particulate present and send to PM
1708635-02 ✓	Hg_FSTM_TRAP_A	30			AFS - Take photos of trap if heavy particulate present and send to PM
1708635-03 ✓	Hg_FSTM_TRAP_A	31			AFS - Take photos of trap if heavy particulate present and send to PM
1708635-04 ✓	Hg_FSTM_TRAP_A	32			AFS - Take photos of trap if heavy particulate present and send to PM
7H25010-CCV5 ✓	QC	33	1703679 ✓		
7H25010-CCB5 ✓	QC	34			
7H25010-CCV6 ✓	QC	35	1703679 ✓		

ANALYSIS SEQUENCE

7H25010



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 8/24/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H25010-CCB6	QC	36			
7H25010-CCV7	QC	37	1703679		
7H25010-CCB7	QC	38			
F708516-DUP1	QC	39			
F708516-MS1	QC	40			
F708516-MSD1	QC	41			
7H25010-CCV8	QC	42	1703679		
7H25010-CCB8	QC	43			

[Signature] 8/25/17
Samples Loaded By Date

[Signature] 8/25/17
Data Processed By Date

16ndol
8/24/17

PREPARATION BENCH SHEET

F708516

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/23/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708516-BLK1	Blank	1	100					
F708516-BLK2	Blank	1	100					
F708516-BLK3	Blank	1	100					
F708516-BS1	LCS	1	100	1701763	200			
F708516-BSD1	LCS Dup	1	100	1701763	200			
F708516-DUP1	Duplicate [1708629-01]	1	100					
F708516-MS1	Matrix Spike [1708629-01]	0.0002	0.02	1704422	25			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL
F708516-MSD1	Matrix Spike Dup [1708629-01]	0.0002	0.02	1704422	25			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL

<u>Standard ID(s):</u>	<u>Description:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard
1704422	THg 10ng/mL Calibration Standard

<u>Expiration:</u>
22-Sep-17 00:00
21-Oct-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1704097	FSTM Lot 170707B	06-Jul-18 00:00
1704516	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
1704956	3% SnCl2 THg reductant	29-Jan-18 00:00
1705022	70/30 Digestion Acid	13-Feb-18 00:00
1705174	5% BrCl	22-Jan-18 00:00

PREPARATION BENCH SHEET

F708516

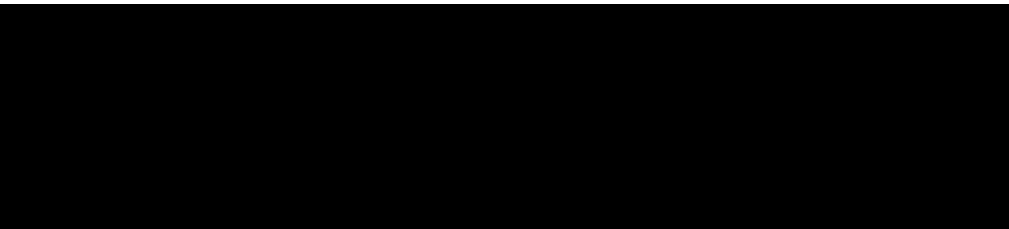
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/23/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708629-01	EFGS08916	1	100	-	-	-	Sample Volume: 2,686.17 L	
1708629-02	EFGS08917	1	100	-	-	-	Sample Volume: 2,686.74 L	
1708631-01	EFGS08671	1	100	-	-	-	Sample Volume: 2,839.51 L	
1708631-02	EFGS08159	1	100	-	-	-	Sample Volume: 2,839.63 L	
1708632-01	EFGS07950	1	100	-	-	-	Sample Volume: 2,435.29 L	
1708632-02	EFGS08550	1	100	-	-	-	Sample Volume: 2,435.29 L	
1708635-01	EFGS09048 33 Trap A 8/9/17 - 8/16/17	1	100	-	-	-	2823.094 L AFS - Take photos of trap if	
1708635-02	EFGS09049 33 Trap B 8/9/17 - 8/16/17	1	100	-	-	-	3700.393 L AFS - Take photos of trap if	
1708635-03	EFGS09126 U4 Trap A 8/9/17 - 8/16/17	1	100	-	-	-	3860.97 L AFS - Take photos of trap if	
1708635-04	EFGS09216 U4 Trap B 8/9/17 - 8/16/17	1	100	-	-	-	2940.75 L AFS - Take photos of trap if	



PREPARATION BENCH SHEET

2600-2
BC 8/25/17

F708516

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/23/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708516-BLK1	Blank	1	100					100X
F708516-BLK2	Blank	1	100					100X
F708516-BLK3	Blank	1	100					100X
F708516-BS1	LCS	1	100	1701763	200			400X
F708516-BSD1	LCS Dup	1	100	1701763	200			400X
F708516-DUP1	Duplicate 1708679-01	1	100					2500X
F708516-MS1	Matrix Spike 1708679-01	1	100	1704422	25			2500X
F708516-MSD1	Matrix Spike Dup 1708679	1	100	1704422	25			2500X

Standard ID(s):
1701763

Description:
THg 1,000ng/mL Secondary Spiking Standard

Expiration:
22-Sep-17 00:00

Reagent ID(s):
1704097
1705022
1705174

Description:
FSTM Lot 170707B
70/30 Digestion Acid
5% BrCl

Expiration:
06-Jul-18 00:00
13-Feb-18 00:00
22-Jan-18 00:00

170495C
1704516
1704517
1703182

PREPARATION BENCH SHEET

2600 - 2
 BL 8/25/17

F708516

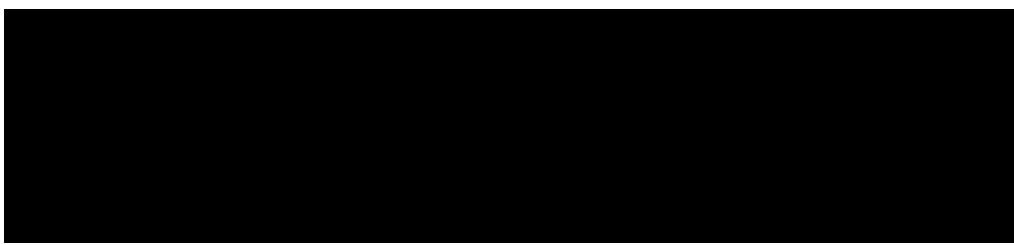
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-009 FSTM Trap Nitric/Sulfuric Digestion

Prepared: 8/23/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments	C
1708629-01	EFGS08916	1	100	-	-	-	Sample Volume: 2,686.17 L 2500X	100X	1000X
1708629-02	EFGS08917	1	100	-	-	-	Sample Volume: 2,686.74 L 2500X	100X	1000X
1708631-01	EFGS08671	1	100	-	-	-	Sample Volume: 2,839.51 L 2500X	100X	1000X
1708631-02	EFGS08159	1	100	-	-	-	Sample Volume: 2,839.63 L 2500X	100X	1000X
1708632-01	EFGS07950	1	100	-	-	-	Sample Volume: 2,435.29 L 2500X	100X	1000X
1708632-02	EFGS08550	1	100	-	-	-	Sample Volume: 2,435.29 L 2500X	100X	1000X
1708635-01	EFGS09048 33 Trap A 8/9/17 - 8/16/17	1	100	-	-	-	2823.094 L AFS - Take photos of trap if 2500X	100X	2500X
1708635-02	EFGS09049 33 Trap B 8/9/17 - 8/16/17	1	100	-	-	-	3700.393 L AFS - Take photos of trap if 2500X	100X	2500X
1708635-03	EFGS09126 U4 Trap A 8/9/17 - 8/16/17	1	100	-	-	-	3860.97 L AFS - Take photos of trap if 2500X	100X	2500X
1708635-04	EFGS09216 U4 Trap B 8/9/17 - 8/16/17	1	100	-	-	-	2940.75 L AFS - Take photos of trap if 2500X	100X	2500X



Trap Digestions

Name: BC Date: 8/23/17 Batch ID: F708516
 Work Order(s): 1708629, 1708631, 1708632, 1708635 Analysis: Total Hg Other _____
 Sample Matrix: FSTM KCl PHg Plug Other _____
 Prep: 70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)
 start time: 15:45, start temp (°C): 55.0 (raw) 54.8 (w/ CF)
 end time: 17:45, end temp (°C): 65.0 (raw) 64.8 (w/ CF) Timer? Yes No
 5% BrCl Oxidation (EFGS-031) start time: _____ (allow samples to sit for at least 4 hr before analysis)
 Other _____

Sample ID Number	Digest vol. (mL)	
F708516 - B1K1	100	
F708516 - B1K2	100	Spike ID: <u>1701763</u>
F708516 - B1K3	100	Spike Amount (µL): <u>200</u>
F708516 - B51	100	Spike Witness: <u>DM 8/25/17</u>
F708516 - B5D1	100	
1708629 - 01A	100	BrCl ID: <u>1705174, 1704958</u>
1708629 - 01B	100	70/30: <u>1709022</u>
1708629 - 01C	100	Other: <u>N/A</u>
1708629 - 02A	100	
1708629 - 02B	100	
1708629 - 02C	100	Thermometer: <u>14545</u>
1708631 - 01A	100	Dispensers: 02K27494 <input checked="" type="checkbox"/>
1708631 - 01B	100	04N73497 <input type="checkbox"/>
1708631 - 01C	100	Other <u>15406623</u>
1708631 - 02A	100	
1708631 - 02B	100	
1708631 - 02C	100	Pipette ID: <u>0U07852</u>
1708632 - 01A	100	Cal. Date: <u>8/18/17</u>
1708632 - 01B	100	
1708632 - 01C	100	Vials and Jars lot# <u>0068447</u>
1708632 - 02A	100	Trap Material Lot#: <u>1704047</u>
1708632 - 02B	100	Loader Mass Verified: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1708632 - 02C	100	
1708635 - 01A	100	
1708635 - 01B	100	
1708635 - 01C	100	Comments:
1708635 - 02A	100	<u>1708629, 1708631,</u>
1708635 - 02B	100	<u>1708632 CBs 5 SAVED</u>
1708635 - 02C	100	<u>@ 9001g</u>
1708635 - 03A	100	<u>1708635 C BUs</u>
1708635 - 03B	100	<u>spikes @ 2,7001g</u>
1708635 - 03C	100	
1708635 - 04A	100	
1708635 - 04B	100	
1708635 - 04C	100	

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7H25009

PEER-REVIEWED

Instrument: Hg2600-2



Calibration ID: UNASSIGNED

INITIALS: *R 8/25/17*
Analyzed: 8/24/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H25009-IBL1 ✓	QC	1			
7H25009-IBL2 ✓	QC	2			
7H25009-IBL3 ✓	QC	3			
7H25009-CAL1 ✓	QC	4	1704505 ✓		
7H25009-CAL2 ✓	QC	5	1704506 ✓		
7H25009-CAL3 ✓	QC	6	1704507 ✓		
7H25009-CAL4 ✓	QC	7	1704508 ✓		
7H25009-CAL5 ✓	QC	8	1704509 ✓		
7H25009-ICV1 ✓	QC	9	1703679 ✓		
F708455-BLK1 ✓	QC	10			
F708455-BLK2 ✓	QC	11			
F708455-BLK3 ✓	QC	12			
F708455-BLK4 ✓	QC	13			
F708455-BLK5 ✓	QC	14			
F708455-BS1 ✓	QC	15			
F708455-BSD1 ✓	QC	16			
F708455-BS2 ✓	QC	17			
1708371-04 ✓	Hg-CVAFS-T-7030	18			
1708119-06RE1 ✓	Hg-CVAFS-T-7030	19			QC needed for sample. See MMO notes. PL 8/17/17
7H25009-CCV1 ✓	QC	20	1703679 ✓		
7H25009-CCB1 ✓	QC	21			
1708240-01 ✓	Hg-CVAFS-T-7030	22			
1708240-02 ✓	Hg-CVAFS-T-7030	23			
1708240-03 ✓	Hg-CVAFS-T-7030	24			
1708240-04 ✓	Hg-CVAFS-T-7030	25			
1708240-05 ✓	Hg-CVAFS-T-7030	26			
1708240-06 ✓	Hg-CVAFS-T-7030	27			
1708240-07 ✓	Hg-CVAFS-T-7030	28			
1708240-08 ✓	Hg-CVAFS-T-7030	29			
1708240-09 ✓	Hg-CVAFS-T-7030	30			
1708240-10 ✓	Hg-CVAFS-T-7030	31			
7H25009-CCV2 ✓	QC	32	1703679 ✓		
7H25009-CCB2 ✓	QC	33			
1708240-11 ✓	Hg-CVAFS-T-7030	34			
1708240-12 ✓	Hg-CVAFS-T-7030	35			

ANALYSIS SEQUENCE

7H25009



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 8/24/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708240-13 ✓	Hg-CVAFS-T-7030	36			
1708240-14 ✓	Hg-CVAFS-T-7030	37			
1708240-15 ✓	Hg-CVAFS-T-7030	38			
1708371-01 ✓	Hg-CVAFS-T-7030	39			
1708371-02 ✓	Hg-CVAFS-T-7030	40			
1708371-03 ✓	Hg-CVAFS-T-7030	41			
F708455-DUPI ✓	QC	42			
F708455-MS1 ✓	QC	43			
7H25009-CCV3 ✓	QC	44	1703679 ✓		
7H25009-CCB3 ✓	QC	45			
F708455-MSD1 ✓	QC	46			
F708455-MS2 ✓	QC	47			
F708455-MSD2 ✓	QC	48			
F708455-MS3 ✓	QC	49			
F708455-MSD3 ✓	QC	50			
7H25009-CCV4 ✓	QC	51	1703679 ✓		
7H25009-CCB4 ✓	QC	52			

[Signature] 8/25/17
 Samples Loaded By Date

[Signature] 8/25/17
 Data Processed By Date

10 added
 8/24/17

PREPARATION BENCH SHEET

F708455

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/16/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708455-BLK1	Blank	0.5	20					
F708455-BLK2	Blank	0.5	20					
F708455-BLK3	Blank	0.5	20					
F708455-BLK4	Pre-BLK for 1708240	0.2713	20					
F708455-BLK5	Post-BLK for 1708240	0.2806	20					
F708455-BS1	LCS	0.2696	20	1704421	20			
F708455-BS2	LCS	0.129	20	1703305	129			
F708455-BSD1	LCS Dup	0.2952	20	1704421	20			
F708455-DUP1	Duplicate [1708119-06RE1]	0.284	20					
F708455-MS1	Matrix Spike [1708119-06RE1]	0.2503	20	1701763	100			
F708455-MS2	Matrix Spike [1708240-10]	0.274	20	1701763	100			
F708455-MS3	Matrix Spike [1708240-15]	0.2602	20	1701763	100			
F708455-MSD1	Matrix Spike Dup [1708119-06RE1]	0.2819	20	1701763	100			
F708455-MSD2	Matrix Spike Dup [1708240-10]	0.2688	20	1701763	100			
F708455-MSD3	Matrix Spike Dup [1708240-15]	0.2637	20	1701763	100			

<u>Standard ID(s):</u>	<u>Description:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard
1703305	DORM-4
1704421	THg 100ng/mL Primary Spiking Standard

<u>Expiration:</u>
22-Sep-17 00:00
29-May-20 00:00
21-Oct-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1704516	THg Washstation (0.5% BrCl)	24-Nov-17 00:00
1704517	THg Dilute 1% BrCl	18-Dec-17 00:00
1704956	3% SnCl2 THg reductant	29-Jan-18 00:00
1704958	5% BrCl	18-Dec-17 00:00
1705022	70/30 Digestion Acid	13-Feb-18 00:00

PREPARATION BENCH SHEET

F708455

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/16/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708119-06RE1	ES-13_17HC001_072517_POL_01_WB	0.2509	20	QC	-	-	MS/MSD QC needed for sample. See N	
1708240-01	MM-MR_INT_17HC001_080117_POL_01_WB	0.2642	20	-	-	-		
1708240-02	MM-MR_INT_17HC001_080117_POL_02_WB	0.2517	20	-	-	-		
1708240-03	MM-MR_INT_17HC001_080117_POL_03_WB	0.2872	20	-	-	-		
1708240-04	MM-MR_INT_17HC001_080117_POL_04_WB	0.2558	20	-	-	-		
1708240-05	MM-MR_INT_17HC001_080117_POL_05_WB	0.2554	20	-	-	-		
1708240-06	PI-01_17HC001_080217_POL_01_WB	0.2814	20	-	-	-		
1708240-07	PI-01_17HC001_080217_POL_02_WB	0.2987	20	-	-	-		
1708240-08	PI-01_17HC001_080217_POL_03_WB	0.2915	20	-	-	-		
1708240-09	PI-01_17HC001_080217_POL_04_WB	0.2624	20	-	-	-		
1708240-10	PI-01_17HC001_080217_POL_05_WB	0.2701	20	QC	-	-	MS/MSD	
1708240-11	SVE-02INT_17HC001_080217_POL_01_WB	0.2927	20	-	-	-		
1708240-12	SVE-02INT_17HC001_080217_POL_02_WB	0.2909	20	-	-	-		
1708240-13	SVE-02INT_17HC001_080217_POL_03_WB	0.2935	20	-	-	-		
1708240-14	SVE-02INT_17HC001_080217_POL_04_WB	0.2668	20	-	-	-		
1708240-15	SVE-02INT_17HC001_080217_POL_05_WB	0.2515	20	QC	-	-	MS/MSD	
1708371-01	IAEA-MESL-ILC-TE Biota-2017 Bottle N30	0.2517	20	-	-	-	Use IAEA-461 as a CRM (B4 Dessicat	
1708371-02	IAEA-MESL-ILC-TE Biota-2017 Bottle N30	0.2538	20	-	-	-	Use IAEA-461 as a CRM (B4 Dessicat	
1708371-03	IAEA-MESL-ILC-TE Biota-2017 Bottle N30	0.2604	20	-	-	-	Use IAEA-461 as a CRM (B4 Dessicat	

Due Date: 8/31/2017

PREPARATION BENCH SHEET

F708455

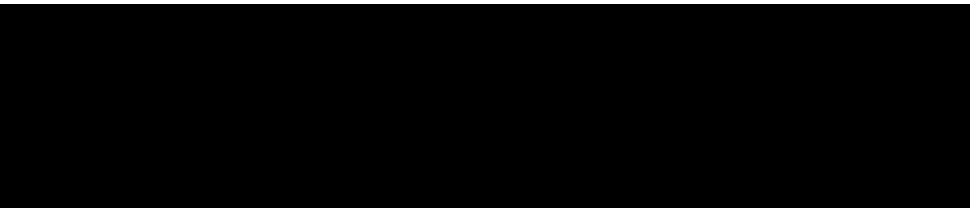
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/16/2017

1708371-04	IAEA-461	0.1289	20	-	-	-	The CRM: Past Issues with MHg and T
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PREPARATION BENCH SHEET

2600-2
MC 8/25/17

F708455

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/16/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708455-BLK1	Blank	0.5	20					20X
F708455-BLK2	Blank	0.5	20					20X
F708455-BLK3	Blank	0.5	20					20X
F708455-BLK4	Pre-BLK for 1708240	0.2713	20					20X
F708455-BLK5	Post-BLK for 1708240	0.2806	20					20X
F708455-BS1	LCS	0.2696	20	1704421	20			20X
F708455-BS2	LCS	0.129	20	1703305	129			400X
F708455-BS3	LCS	0.1289	20					400X
F708455-BSD1	LCS Dup	0.2952	20	1704421	20			20X
F708455-DUP1	Duplicate [1708119-06RE1]	0.284	20					100X
F708455-MS1	Matrix Spike [1708119-06RE1]	0.2503	20	1701763	100			400X
F708455-MS2	Matrix Spike [1708240-10]	0.274	20	1701763	100			400X
F708455-MS3	Matrix Spike [1708240-15]	0.2602	20	1701763	100			400X
F708455-MSD1	Matrix Spike Dup [1708119-06RE1]	0.2819	20	1701763	100			400X
F708455-MSD2	Matrix Spike Dup [1708240-10]	0.2688	20	1701763	100			400X
F708455-MSD3	Matrix Spike Dup [1708240-15]	0.2637	20	1701763	100			400X

Standard ID(s):
1701763 THg 1,000ng/mL Secondary Spiking Standard
1703305 DORM-4
1704421 THg 100ng/mL Primary Spiking Standard

Expiration:
22-Sep-17 00:00
29-May-20 00:00
21-Oct-17 00:00

Reagent ID(s):
1704424 Boiling Chips for AFS prep
1704958 5% BrCl
1705022 70/30 Digestion Acid

Expiration:
21-Jan-18 00:00
18-Dec-17 00:00
13-Feb-18 00:00

Due Date: 8/31/2017

1704956
1704516
1704517
1703182

PREPARATION BENCH SHEET

F708455

Eurofins Frontier Global Sciences, Inc.

2600-2
 BK 8/25/17

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/16/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708119-06RE1	ES-13_17HC001_072517_POL_01_WB	0.2509	20	QC	-	-	MS/MSD QC needed for sample. See IV 100X	
1708240-01	MM-MR_INT_17HC001_080117_POL_01_WB	0.2642	20	-	-	-	100X	
1708240-02	MM-MR_INT_17HC001_080117_POL_02_WB	0.2517	20	-	-	-	100X	
1708240-03	MM-MR_INT_17HC001_080117_POL_03_WB	0.2872	20	-	-	-	100X	
1708240-04	MM-MR_INT_17HC001_080117_POL_04_WB	0.2558	20	-	-	-	100X	
1708240-05	MM-MR_INT_17HC001_080117_POL_05_WB	0.2554	20	-	-	-	100X	
1708240-06	PI-01_17HC001_080217_POL_01_WB	0.2814	20	-	-	-	100X	
1708240-07	PI-01_17HC001_080217_POL_02_WB	0.2987	20	-	-	-	100X	
1708240-08	PI-01_17HC001_080217_POL_03_WB	0.2915	20	-	-	-	100X	
1708240-09	PI-01_17HC001_080217_POL_04_WB	0.2624	20	-	-	-	100X	
1708240-10	PI-01_17HC001_080217_POL_05_WB	0.2701	20	QC	-	-	MS/MSD 100X	
1708240-11	SVE-02INT_17HC001_080217_POL_01_WB	0.2927	20	-	-	-	100X	
1708240-12	SVE-02INT_17HC001_080217_POL_02_WB	0.2909	20	-	-	-	100X	
1708240-13	SVE-02INT_17HC001_080217_POL_03_WB	0.2935	20	-	-	-	100X	
1708240-14	SVE-02INT_17HC001_080217_POL_04_WB	0.2668	20	-	-	-	100X	
1708240-15	SVE-02INT_17HC001_080217_POL_05_WB	0.2515	20	QC	-	-	MS/MSD 100X	
1708371-01	IAEA-MESL-ILC-TE Biota-2017 Bottle N30	0.2517	20	-	-	-	Use IAEA-461 as a CRM (B4 Dessicatt 100X	
1708371-02	IAEA-MESL-ILC-TE Biota-2017 Bottle N30	0.2538	20	-	-	-	Use IAEA-461 as a CRM (B4 Dessicatt 100X	
1708371-03	IAEA-MESL-ILC-TE Biota-2017 Bottle N30	0.2604	20	-	-	-	Use IAEA-461 as a CRM (B4 Dessicatt 100X	

PREPARATION BENCH SHEET

F708455

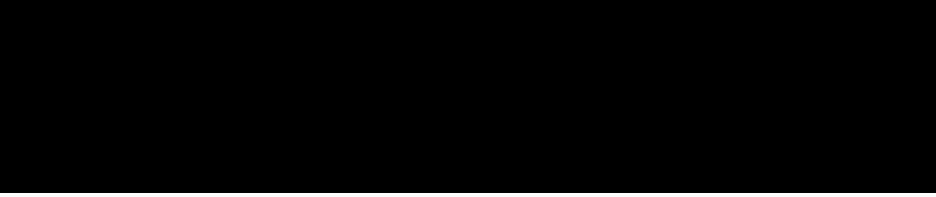
Eurofins Frontier Global Sciences, Inc.

2600 - 2
BL 8/25/17

Matrix: Tissue

Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion

Prepared: 8/16/2017



Due Date: 8/31/2017

Technician: WFC/CLL Batch#: F708455 Date: 8/16/17 8/17/17 8/21/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____
 Balance#: 19 Calibrated? Yes No Therm.#: 14645 Vial Type: Glass Teflon
 Calibrated? Yes No

*Time in: 1421 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C
 Time out: 1646 Actual Temp. (raw): 80.0 °C w/ CF: 80.1 °C
 *Time in can't begin before target temperature is reached


Final vol.: 20 mL (LIMS ID: 1704458) Spike vol.: 100 µL (LIMS ID: 1701763)
 Spike Witness: CWC 8/18/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0007852 Calibration Date: 8/18/17
 HNO₃ LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A
 70/30 LIMS ID: 1705002 Dispenser #: 02K27494 Calibrated? Yes No
 Other Acid LIMS ID: N/A Dispenser #: 15406623 Yes
 Glass Vial # 00068124 Boiling Chip lot # 1704424 *Hotblock Position: L6

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F708455 - Blk1	0.2639	23	1708240 - 11	0.2927	BS2 = DORM-4
2	F708455 - Blk2	0.2794	24	1708240 - 12	0.2909	LIMS = 1703305
3	F708455 - Blk3	0.2773	25	1708240 - 13	0.2935	BS3 = IAEA 461
4	F708455 - BS1	0.2696	26	1708240 - 14	0.2668	Comments
5	F708455 - BSD1	0.2952	27	1708240 - 15	0.2515	Blk4 + 5 are
6	F708455 - BS2	0.1290	28	F708455 - MS3	0.2602	homog. pre+post
7	1708119 - OGREI	0.2509	29	F708455 - MSD3	0.2637	blanks respectively.
8	F708455 - DUPI	0.2840	30	1708371 - 01	0.2517	Dupl (MS1/MSD)
9	F708455 - MS1	0.2503	31	1708371 - 02	0.2538	SRC: 1708119-06REI
10	F708455 - MSD1	0.2819	32	1708371 - 03	0.2604	MS2/MSD2 SRC:
11	1708240 - 01	0.2642	33	F708455 - Blk4	0.2713	1708240-10
12	1708240 - 02	0.2517	34	F708455 - Blk5	0.2806	MS3/MSD3 SRC:
13	1708240 - 03	0.2872	35	F708455 - BS3	0.1289	1708240-15
14	1708240 - 04	0.2558	36			Spike & Acid
15	1708240 - 05	0.2554	37			added by CWC
16	1708240 - 06	0.2814	38			BS1/BSD1 spike:
17	1708240 - 07	0.2987	39			20 µL 0 & 100 µg/mL
18	1708240 - 08	0.2915	40			1704421
19	1708240 - 09	0.2624	41			* F708455 - BS3
20	1708240 - 10	0.2701	42			is sample
21	F708455 - MS2	0.2740	43			1708371 - 04
22	F708455 - MSD2	0.2688	44			CWC 8/25/17

Failing Data Report - 7H25009

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
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 8/25/17
Analyst Reviewed By Date

 8/25/17
Peer Reviewed By Date

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7h25009, 7h25010
Reviewer:	<u>R 8/25/17</u>	Dataset ID(s):	THg26002-170824-1
Date:	8/25/2017	WO (s) #:	VARIOUS
Batch #(s):	F708455, F708516		

• Select the correct preparation method.

Analyte	Prep Method		Matrix
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest	Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb	Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest	Tissue
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2800	KCl Trap BrCl Oxidation	Air/Gas
<input type="checkbox"/> THg	EFTM-T-TM-SOP2837	Shared Nitric	Tissue
<input type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation	Water
<input type="checkbox"/> Hg ⁰	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: BC

Reviewer Initials: R 8/25/17

- | | | | |
|---|---|--|--|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?
Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1 | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Check 5% of transcription from Instrument print-out and Excel file
Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries). | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (d) Check and compare masses (review prep benchsheet) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (e) Check & compare initial & final volumes | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel?
50 ml / aliquot = Excel dilution value | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____ | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS) | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst: BC	Sequence(s) #: 7h25009, 7h25010
Reviewer: 0 <i>R 8/25/17</i>	Dataset ID(s): THg26002-170824-1
Date: 8/25/2017	WO (s) #: VARIOUS
Batch #(s): F708455, F708516	0

Analyst Initials *R*

Reviewer Initials *R 8/25/17*

- 5b. Has the B/C section data been uploaded? YES NO N/A
- QA/QC Data Checked**
6. RSD CF ($\leq 15\%$) PASS FAIL
 Comments: _____
7. The calibration curve included a minimum of 5 Standards YES NO
 Comments: _____
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%) PASS FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%) PASS FAIL
 Comments: _____
10. Do all calibration points pass acceptance criteria? YES NO
 Comments: _____
11. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
12. Explain any items on the failed data report from Element
 Comments: NONE
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) PASS FAIL
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: _____
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)? YES NO
 (c) Was a BrCl Blank analyzed for each preservation level? YES NO N/A
 (d) Are Preparation Blanks summarized on QC page? YES NO
14. Filtration Blank Prepared (if yes, use FB qualifier) YES NO
 (a) Filtration Blank prep date same as associated samples' prep date YES NO N/A
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI YES NO N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L PASS FAIL
 Comments: _____
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI? PASS FAIL
 Comments: _____
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) YES NO N/A
18. Is the correct 'Source' designated for MD/MS/MSD? YES NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet? YES NO N/A

Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)

Analyst:	BC	Sequence(s) #:	7h25009, 7h25010
Reviewer:	0 <i>AE/RS/rr</i>	Dataset ID(s):	THg26002-170824-1
Date:	8/25/2017	WO (s) #:	VARIOUS
Batch #(s):	F708455, F708516		0

Analyst Initials *AE* Reviewer Initials *AE/RS/rr*

- | | | | |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. Are the samples run at the correct dilution level for the method? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. Dissolved < Total (if applicable) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Effluent < Influent (visually confirm if needed) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 25. Are re-runs noted with reason? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 27. Is the B trap <5% A Traps | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Are spiked trap recoveries 75-125% of true value? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 30. Have re-extracts been created for non-reportable samples? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning. | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 33. Does the dataset have an LOQ/LOQ or DOC? | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 34. Water samples: has the preservation log been included in dataset for final volume verification? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
- Files located at:** \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs
- | | | | |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 1/11/17, 1/27/17 _____ IDOC/CDOC within last 12 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 37. Date of analyst's SOP reading for method: _____ 5/20/2017 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u><i>4/27/17, 5/9/17</i></u> LOD within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u><i>4/27/17, 5/9/17</i></u> LOQ within last 3 months? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.



Frontier Global Sciences

MHg27001-171020-1

Analysis Datasheet for Methyl Mercury in Waters

Date of Analysis: October 20, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7J22008

Analyst: DM2

Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	24.27 units	485.40	24.27 units	485.40	89.0 %Rec
SEQ-CAL2	1	0.20 ng/L	104.65 units	523.26	104.65 units	523.26	95.9 %Rec
SEQ-CAL3	1	1.00 ng/L	591.99 units	591.99	591.99 units	591.99	108.5 %Rec
SEQ-CAL4	1	2.00 ng/L	1087.55 units	543.78	1087.55 units	543.78	99.7 %Rec
SEQ-CAL5	1	4.00 ng/L	2333.65 units	583.41	2333.65 units	583.41	106.9 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF	Eff Factor
545.57	+/- 43.90	8.0% RSD	545.57	0.8690

MDN Only

SEQ-CAL1
 SEQ-CAL2
 SEQ-CAL3
 SEQ-CAL4
 SEQ-CAL5
 SEQ-CAL6 NA
 SEQ-CAL7 NA
 SEQ-CAL8 NA
 SEQ-CAL9 NA
 SEQ-ICV/CCV
 Acetate Buffer
 Ethylating Agent

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	0.00 units		0.00 ng/L	#VALUE!

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.002 ng/L	±0.002
BLK	2	0	0.000 ng/L	
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: DM 10/23/17

Sample				Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB					
Instrument	Analyst	Type	LabNumber							Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hq2700-1	DM2	CAL	SEQ-IBL1	1	10/20/17 10:27	26767-1.RAW	10:27	0.00			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL1	1	10/20/17 10:37	26768-1.RAW	#####	24.27			24.3	0.044	0.044	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL2	1	10/20/17 10:48	26769-1.RAW	#####	104.65			104.7	0.192	0.192	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL3	1	10/20/17 10:58	26770-1.RAW	#####	591.99			592.0	1.085	1.085	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL4	1	10/20/17 11:09	26771-1.RAW	#####	1087.55			1087.6	1.993	1.993	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL5	1	10/20/17 11:19	26772-1.RAW	#####	2333.65			2333.6	4.277	4.277	ng/L	
Hq2700-1	DM2	CAL	SEQ-ICV1	1	10/20/17 11:30	26773-1.RAW	#####	280.11			280.1	0.513	0.513	ng/L	
Hq2700-1	DM2	CAL	SEQ-ICB1	1	10/20/17 11:40	26774-1.RAW	#####	3.13			3.1	0.006	0.006	ng/L	
Hq2700-1	DM2	BLK	F710411-BLK1	1.25	10/20/17 11:51	26775-1.RAW	#####	1.53	1		1.5	0.003	0.004	ng/L	
Hq2700-1	DM2	BLK	F710411-BLK2	1.25	10/20/17 12:01	26776-1.RAW	#####	0.78	1		0.8	0.002	0.002	ng/L	
Hq2700-1	DM2	BLK	F710411-BLK3	1.25	10/20/17 12:12	26777-1.RAW	#####	0.00	1		0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	F710411-BS1	1.25	10/20/17 12:22	26778-1.RAW	#####	355.87	1		355.9	0.749	0.936	ng/L	
Hq2700-1	DM2	SAM	F710411-BSD1	1.25	10/20/17 12:33	26779-1.RAW	#####	391.93	1		391.9	0.825	1.031	ng/L	
Hq2700-1	DM2	SAM	F710411-DUP1	1.25	10/20/17 12:43	26780-1.RAW	#####	27.78	1		27.8	0.057	0.071	ng/L	
Hq2700-1	DM2	SAM	F710411-MS1	1.25	10/20/17 12:54	26781-1.RAW	#####	408.25	1		408.3	0.859	1.074	ng/L	
Hq2700-1	DM2	SAM	F710411-MSD1	1.25	10/20/17 13:04	26782-1.RAW	#####	358.46	1		358.5	0.754	0.943	ng/L	
Hq2700-1	DM2	SAM	F710411-MS2	1.25	10/20/17 13:15	26783-1.RAW	#####	336.74	1		336.7	0.709	0.886	ng/L	
Hq2700-1	DM2	SAM	F710411-MSD2	1.25	10/20/17 13:25	26784-1.RAW	#####	326.12	1		326.1	0.686	0.858	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV1	1	10/20/17 13:36	26785-1.RAW	#####	254.91			254.9	0.467	0.467	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB1	1	10/20/17 13:46	26786-1.RAW	#####	1.38			1.4	0.003	0.003	ng/L	
Hq2700-1	DM2	SAM	1710143-01	1.25	10/20/17 13:57	26787-1.RAW	#####	22.12	1		22.1	0.045	0.056	ng/L	
Hq2700-1	DM2	SAM	1710143-02	1.25	10/20/17 14:08	26788-1.RAW	#####	25.70	1		25.7	0.053	0.066	ng/L	
Hq2700-1	DM2	SAM	1710143-03	1.25	10/20/17 14:18	26789-1.RAW	#####	19.27	1		19.3	0.039	0.049	ng/L	
Hq2700-1	DM2	SAM	1710143-04	1.25	10/20/17 14:29	26790-1.RAW	#####	20.02	1		20.0	0.041	0.051	ng/L	
Hq2700-1	DM2	SAM	1710143-05	1.25	10/20/17 14:39	26791-1.RAW	#####	19.84	1		19.8	0.040	0.050	ng/L	
Hq2700-1	DM2	SAM	1710143-06	1.25	10/20/17 14:50	26792-1.RAW	#####	13.54	1		13.5	0.027	0.034	ng/L	
Hq2700-1	DM2	SAM	1710351-01	1.25	10/20/17 15:00	26793-1.RAW	#####	29.40	1		29.4	0.060	0.075	ng/L	
Hq2700-1	DM2	SAM	1710351-03	1.25	10/20/17 15:11	26794-1.RAW	#####	14.23	1		14.2	0.028	0.035	ng/L	
Hq2700-1	DM2	SAM	1710351-04	1.25	10/20/17 15:21	26795-1.RAW	#####	41.63	1		41.6	0.086	0.108	ng/L	
Hq2700-1	DM2	SAM	1710351-05	1.25	10/20/17 15:32	26796-1.RAW	#####	40.14	1		40.1	0.083	0.104	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV2	1	10/20/17 15:42	26797-1.RAW	#####	255.45			255.4	0.468	0.468	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB2	1	10/20/17 15:53	26798-1.RAW	#####	0.00			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	1710351-07	1.25	10/20/17 16:03	26799-1.RAW	#####	51.26	1		51.3	0.106	0.133	ng/L	
Hq2700-1	DM2	SAM	1710351-08	1.25	10/20/17 16:14	26800-1.RAW	#####	1.81	1		1.8	0.002	0.003	ng/L	
Hq2700-1	DM2	SAM	1710360-01	1.25	10/20/17 16:24	26801-1.RAW	#####	0.00	1		0.0	-0.002	-0.002	ng/L	
Hq2700-1	DM2	SAM	1710360-02	1.25	10/20/17 16:35	26802-1.RAW	#####	6.09	1		6.1	0.011	0.014	ng/L	
Hq2700-1	DM2	SAM	1710360-03	1.25	10/20/17 16:45	26803-1.RAW	#####	0.00	1		0.0	-0.002	-0.002	ng/L	
Hq2700-1	DM2	SAM	1710360-04	1.25	10/20/17 16:56	26804-1.RAW	#####	0.00	1		0.0	-0.002	-0.002	ng/L	
Hq2700-1	DM2	SAM	1710366-01RE1	1.25	10/20/17 17:06	26805-1.RAW	#####	20.17	1		20.2	0.041	0.051	ng/L	
Hq2700-1	DM2	SAM	1710478-02	1.25	10/20/17 17:17	26806-1.RAW	#####	12.05	1		12.0	0.024	0.030	ng/L	
Hq2700-1	DM2	SAM	1710581-01	1.25	10/20/17 17:27	26807-1.RAW	#####	486.91	1		486.9	1.025	1.282	ng/L	
Hq2700-1	DM2	SAM	1710581-02	1.25	10/20/17 17:38	26808-1.RAW	#####	4959.62	1		4959.6	10.460	13.074	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV3	1	10/20/17 17:48	26809-1.RAW	#####	281.90			281.9	0.517	0.517	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB3	1	10/20/17 17:59	26810-1.RAW	#####	1.33			1.3	0.002	0.002	ng/L	

ANALYSIS SEQUENCE

7J22008

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/20/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J22008-IBL1 ✓	QC	1			
7J22008-CAL1 ✓	QC	2	1706041 ✓		
7J22008-CAL2 ✓	QC	3	1706042 ✓		
7J22008-CAL3 ✓	QC	4	1706043 ✓		
7J22008-CAL4 ✓	QC	5	1706044 ✓		
7J22008-CAL5 ✓	QC	6	1706045 ✓		
7J22008-ICV1 ✓	QC	7	1705084 ✓		
7J22008-ICB1 ✓	QC	8			
F710411-BLK1 ✓	QC	9			
F710411-BLK2 ✓	QC	10			
F710411-BLK3 ✓	QC	11			
F710411-BS1 ✓	QC	12			
F710411-BSD1 ✓	QC	13			
F710411-DUP1 ✓	QC	14			
F710411-MS1 ✓	QC	15			
F710411-MSD1 ✓	QC	16			
F710411-MS2 ✓	QC	17			
F710411-MSD2 ✓	QC	18			
7J22008-CCV1 ✓	QC	19	1705084 ✓		
7J22008-CCB1 ✓	QC	20			
1710143-01 ✓	MHg-CVAFS-W-Dist	21			Scan all data for level IV report
1710143-02 ✓	MHg-CVAFS-W-Dist	22			Scan all data for level IV report
1710143-03 ✓	MHg-CVAFS-W-Dist	23			Scan all data for level IV report
1710143-04 ✓	MHg-CVAFS-W-Dist	24			Scan all data for level IV report
1710143-05 ✓	MHg-CVAFS-W-Dist	25			Scan all data for level IV report
1710143-06 ✓	MHg-CVAFS-W-Dist	26			Scan all data for level IV report
1710351-01 ✓	MHg-CVAFS-W-Dist	27			Scan all data for level IV report
1710351-03 ✓	MHg-CVAFS-W-Dist	28			Scan all data for level IV report
1710351-04 ✓	MHg-CVAFS-W-Dist	29			Scan all data for level IV report
1710351-05 ✓	MHg-CVAFS-W-Dist	30			Scan all data for level IV report
7J22008-CCV2 ✓	QC	31	1705084 ✓		
7J22008-CCB2 ✓	QC	32			
1710351-07 ✓	MHg-CVAFS-W-Dist	33			Scan all data for level IV report
1710351-08 ✓	MHg-CVAFS-W-Dist	34			Scan all data for level IV report
1710360-01 ✓	MHg-CVAFS-W-Dist	35			

Due Date: 10/25/2017

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Page 1 of 2

ANALYSIS SEQUENCE

7J22008

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/20/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1710360-02 ✓	MHg-CVAFS-W-Dist	36			
1710360-03 ✓	MHg-CVAFS-W-Dist	37			
1710360-04 ✓	MHg-CVAFS-W-Dist	38			
1710366-01RE1 ✓	MHg-CVAFS-W-Dist	39			Redigest due to QC failure. PL 10/16/17
1710478-02 ✓	MHg-CVAFS-W-Dist	40			
1710581-01 ✓	MHg-CVAFS-W-Dist	41			
1710581-02 ✓	MHg-CVAFS-W-Dist	42			
7J22008-CCV3 ✓	QC	43	1705084	✓	
7J22008-CCB3 ✓	QC	44			

Dan M. M. M. M. 10/20/17
 Samples Loaded By Date

Dan M. M. M. M. 10/22/17
 Data Processed By Date

Failing Data Report - 7J22008

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1710581-02	MHg-CVAFS-W-Dist	11.6	0.050				ng/L						FAIL-OVER	PASS	E

Dean Matern 10/22/17
 Analyst Reviewed By Date

[Signature] 10/23/17
 Peer Reviewed By Date

PREPARATION BENCH SHEET

F710411

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710411-BLK1	Blank	45	40					
F710411-BLK2	Blank	45	40					
F710411-BLK3	Blank	45	40					
F710411-BS1	Blank Spike	45	40	1705979	45			
F710411-BSD1	Blank Spike dup	45	40	1705979	45			
F710411-DUP1	Duplicate [1710143-01]	45	40					
F710411-MS1	Matrix Spike [1710143-04]	45	40	1705979	45			
F710411-MS2	Matrix Spike [1710360-01]	45	40	1705979	45			
F710411-MSD1	Matrix Spike Dup [1710143-04]	45	40	1705979	45			
F710411-MSD2	Matrix Spike Dup [1710360-01]	45	40	1705979	45			

Standard ID(s): 1705979
Description: MHg New Primary 1.0 ng/mL CAL

Expiration: 06-Jan-18 00:00

<u>Reagent ID(s):</u> 1704707	<u>Description:</u> Acetate Buffer	<u>Expiration:</u> 29-Jan-18 00:00
1706016	Ethylating Agent (For Methyl Mercury Analysis)	08-Apr-18 00:00
1706143	2.5% Ascorbic Acid	23-Oct-17 00:00
1706208	0.4% HCl Distillation Dilute (Made Daily)	20-Oct-17 00:00
1706209	APDC	26-Oct-17 00:00

PREPARATION BENCH SHEET

F710411

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710143-01	OL-2678-01	45	40	-	-	-	Preservation Blank Created Scan all dat	
1710143-02	OL-2678-02	45	40	-	-	-	Preservation Blank Created Scan all dat	
1710143-03	OL-2678-03	45	40	-	-	-	Preservation Blank Created Scan all dat	
1710143-04	OL-2678-04	45	40	-	-	-	Preservation Blank Created Scan all dat	
1710143-05	OL-2678-05	45	40	-	-	-	Preservation Blank Created Scan all dat	
1710143-06	OL-2678-06	45	40	-	-	-	Preservation Blank Created Scan all dat	
1710351-01	OL-2682-01	45	40	-	-	-	Preservation Blank created Scan all dat	
1710351-03	OL-2682-02	45	40	-	-	-	Preservation Blank created Scan all dat	
1710351-04	OL-2682-03	45	40	-	-	-	Preservation Blank created Scan all dat	
1710351-05	OL-2682-04	45	40	-	-	-	Preservation Blank created Scan all dat	
1710351-07	OL-2682-05	45	40	-	-	-	Preservation Blank created Scan all dat	
1710351-08	OL-2682-06	45	40	-	-	-	Preservation Blank created Scan all dat	
1710360-01	40197.1	45	40	-	-	-		
1710360-02	40197.2	45	40	-	-	-		
1710360-03	40198.1	45	40	-	-	-		
1710360-04	40198.2	45	40	-	-	-		
1710366-01RE1	1710284-001C 7100440-01	45	40	-	-	-	Redigest due to QC failure. PL 10/16/1	
1710478-02	DEW-WAT-01	45	40	-	-	-		
1710581-01	TW PZ-1-20171010	45	40	-	-	-		

PREPARATION BENCH SHEET

F710411

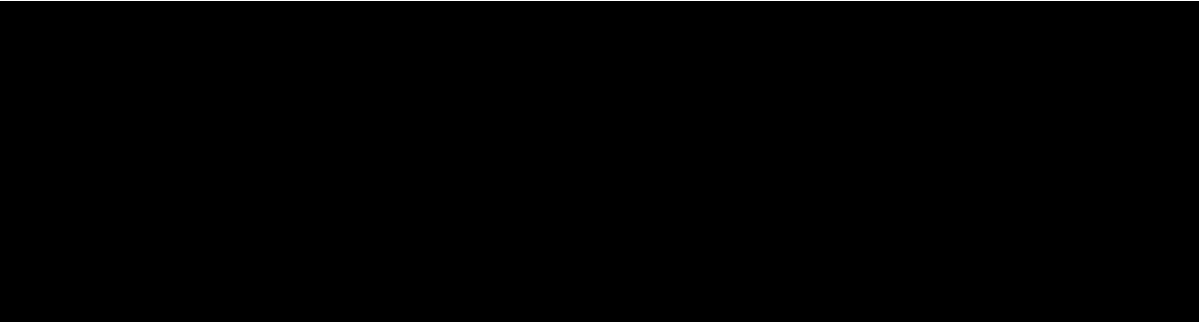
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 10/19/2017

1710581-02	TW PZ-2-20171010	45	40	-	-	-		
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PREPARATION BENCH SHEET

2700-1
10/20/17 DM

F710411

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710411-BLK1	Blank	45	40					1.25X
F710411-BLK2	Blank	45	40					1.25X
F710411-BLK3	Blank	45	40					1.25X
F710411-BS1	Blank Spike	45	40	1705979	45			1.25X
F710411-BSD1	Blank Spike dup	45	40	1705979	45			1.25X
F710411-DUP1	Duplicate [1710143-01]	45	40					1.25X
F710411-MS1	Matrix Spike [1710143-04]	45	40	1705979	45			1.25X
F710411-MS2	Matrix Spike [1710360-01]	45	40	1705979	45			1.25X
F710411-MSD1	Matrix Spike Dup [1710143-04]	45	40	1705979	45			1.25X
F710411-MSD2	Matrix Spike Dup [1710360-01]	45	40	1705979	45			1.25X

Standard ID(s): 1705979
Description: MHg New Primary 1.0 ng/mL CAL

Expiration: 06-Jan-18 00:00

Reagent ID(s): 1706208, 1706209
Description: 0.4% HCl Distillation Dilute (Made Daily), APDC

Expiration: 20-Oct-17 00:00, 26-Oct-17 00:00

1706143
1704707
1706016

Due Date: 10/25/2017

PREPARATION BENCH SHEET

2700-1
10/20/17 DM

F710411

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710143-01	OL-2678-01	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1710143-02	OL-2678-02	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1710143-03	OL-2678-03	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1710143-04	OL-2678-04	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1710143-05	OL-2678-05	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1710143-06	OL-2678-06	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1710351-01	OL-2682-01	45	40	-	-	-	Preservation Blank created Scan all dat	1.25X
1710351-03	OL-2682-02	45	40	-	-	-	Preservation Blank created Scan all dat	1.25X
1710351-04	OL-2682-03	45	40	-	-	-	Preservation Blank created Scan all dat	1.25X
1710351-05	OL-2682-04	45	40	-	-	-	Preservation Blank created Scan all dat	1.25X
1710351-07	OL-2682-05	45	40	-	-	-	Preservation Blank created Scan all dat	1.25X
1710351-08	OL-2682-06	45	40	-	-	-	Preservation Blank created Scan all dat	1.25X
1710360-01	40197.1	45	40	-	-	-		1.25X
1710360-02	40197.2	45	40	-	-	-		1.25X
1710360-03	40198.1	45	40	-	-	-		1.25X
1710360-04	40198.2	45	40	-	-	-		1.25X
1710366-01RE1	1710284-001C 7100440-01	45	40	-	-	-	Redigest due to QC failure. PL 10/16/1	1.25X
1710478-02	DEW-WAT-01	45	40	-	-	-		1.25X
1710581-01	TW PZ-1-20171010	45	40	-	-	-		1.25X

Due Date: 10/25/2017

PREPARATION BENCH SHEET

2700-1
10/20/17 DM

F710411

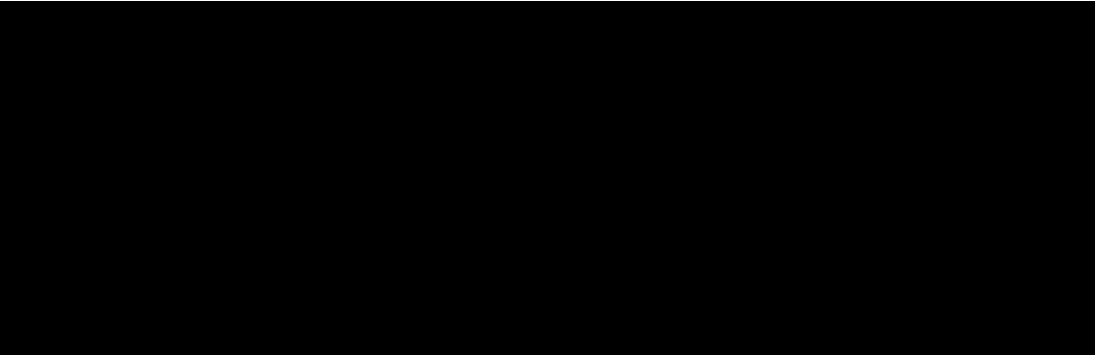
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 10/19/2017

1710581-02	TW PZ-2-20171010	45	40	-	-	-	1.25X (F)
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Methyl Mercury Distillations (EPA 1630)

Name: Dwyer Date: 10-19-17 Batch #: F710411 Sample Matrix: Water
 WO#: 1710143, 1710351, 1710360, 1710366, 1710478, 1710581

The pH of the preserved sample must be documented before an aliquot is removed for preparation.

Digest #	Sample ID Number	Preserved pH	Sample Size (mL)	Final pH (±3)	Time first sample distillation completed: <u>13:30 PM 10/19/17</u>
Blk1	F710411 Blk1	1.0	45	3.0	Spike ID: <u>1705979</u> Spike Amount: <u>45</u> µL Spike Witness: <u>R 10/19/17</u> Balance #: <u>10/19/17</u> Calibrated? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pipette #: <u>NW09653</u> Cal. Date: <u>10/19/17</u> Pipette #: <u>NW09643</u> Cal. Date: <u>10/18/17</u> Pipette #: <u>NW01152</u> Cal. Date: <u>10/18/17</u> APDC ID: <u>1706209</u> HCl ID: <u>1700-1706208</u> <u>10/19/17</u> Temperature: No set range as the temp. may be changed to keep flow rate of ≥10 mL per hour. Temperature is recorded for informational purposes only. Unit 1: <u>121.0</u> Unit 2: <u>122.0</u> Unit 3: <u>120.3</u> Unit 4: <u>120.6</u> Unit 5: <u>122.0</u> Unit 6: <u>122.0</u> Comments: <u>F710411-source</u> <u>Dupl 1710143-01</u> <u>F710411-MS1 MS01</u> <u>1710143-04</u> <u>F710411-MS2 MS02</u> <u>1710360-01</u> <u>1710581-01 sample</u> <u>was Browning color 10/19/17</u> <u>10/19/17</u>
Blk2	F710411 Blk2	1.0	45	3.0	
Blk3	F710411 Blk3	1.0	45	3.0	
BS1	F710411 BS1	1.0	45	3.0	
BS01	F710411 BS01	6.0	45	3.0	
Dupl	F710411 Dupl	1.0	45	3.0	
MS1	F710411 MS1	1.0	45	3.0	
MS01	F710411 MS01	1.0	45	3.0	
MS2	F710411 MS2	1.0	45	3.0	
MS02	F710411 MS02	1.0	45	3.0	
1	1710143-01 B	1.0	45	3.0	
2	1710143-02 B	1.0	45	3.0	
3	1710143-03 B	1.0	45	3.0	
4	1710143-04 B	1.0	45	3.0	
5	1710143-05 B	1.0	45	4.0	
6	1710143-06 B	1.0	45	3.0	
7	1710351-01 B	1.0	45	3.0	
8	1710351-03 B	1.0	45	3.0	
9	1710351-04 B	1.0	45	4.0	
10	1710351-05 B	1.0	45	4.0	
11	1710351-07 B	1.0	45	4.0	
12	1710351-08 B	1.0	45	3.0	
13	1710360-01 A	1.0	45	3.0	
14	1710360-02 A	1.0	45	3.0	
15	1710360-03 A	1.0	45	3.0	
16	1710360-04 A	1.0	45	4.0	
17	1710366-01 RE1	1.0	45	3.0	
18	1710478-02 A	1.0	45	3.0	
19	1710581-01 A	1.0	45	3.0	
20	1710581-02 A	1.0	45	3.0	



Frontier Global Sciences

MHg27001-171020-2

Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: October 20, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7J22009

Analyst: DM2

Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	24.27 units	485.40	24.27 units	485.40	89.0 %Rec
SEQ-CAL2	1	0.20 ng/L	104.65 units	523.26	104.65 units	523.26	95.9 %Rec
SEQ-CAL3	1	1.00 ng/L	591.99 units	591.99	591.99 units	591.99	108.5 %Rec
SEQ-CAL4	1	2.00 ng/L	1087.55 units	543.78	1087.55 units	543.78	99.7 %Rec
SEQ-CAL5	1	4.00 ng/L	2333.65 units	583.41	2333.65 units	583.41	106.9 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF **Corr. St Dev RF** **Corr. RSD CF** **Uncorr. Mean RF**
 545.57 +/- 43.90 8.0% RSD 545.57

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	0.00 units		0.00 ng/L	#VALUE!

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.000 ng/L	±0.000
BLK	2	0	0.000 ng/L	
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: R 10/23/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2700-1	DM2	CAL	SEQ-IBL1	1	10/20/17 10:27	26767-1.RAW	10:27:14	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	10/20/17 10:37	26768-1.RAW	10:37:45	24.27			24.3	0.044	0.044	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	10/20/17 10:48	26769-1.RAW	10:48:16	104.65			104.7	0.192	0.192	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	10/20/17 10:58	26770-1.RAW	10:58:46	591.99			592.0	1.085	1.085	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	10/20/17 11:09	26771-1.RAW	11:09:17	1087.55			1087.6	1.993	1.993	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	10/20/17 11:19	26772-1.RAW	11:19:48	2333.65			2333.6	4.277	4.277	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1	1	10/20/17 11:30	26773-1.RAW	11:30:19	280.11			280.1	0.513	0.513	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1	1	10/20/17 11:40	26774-1.RAW	11:40:49	3.13			3.1	0.006	0.006	ng/L	
Hg2700-1	DM2	BLK	F710411-BLK1	1.25	10/20/17 11:51	26775-1.RAW	11:51:20	1.53		X	1.5	0.003	0.003	ng/L	
Hg2700-1	DM2	BLK	F710411-BLK2	1.25	10/20/17 12:01	26776-1.RAW	12:01:51	0.78		X	0.8	0.001	0.002	ng/L	
Hg2700-1	DM2	BLK	F710411-BLK3	1.25	10/20/17 12:12	26777-1.RAW	12:12:22	0.00		X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F710411-BS1	1.25	10/20/17 12:22	26778-1.RAW	12:22:52	355.87		X	355.9	0.652	0.815	ng/L	
Hg2700-1	DM2	SAM	F710411-BSD1	1.25	10/20/17 12:33	26779-1.RAW	12:33:23	391.93		X	391.9	0.718	0.898	ng/L	
Hg2700-1	DM2	SAM	F710411-DUP1	1.25	10/20/17 12:43	26780-1.RAW	12:43:54	27.78		X	27.8	0.051	0.064	ng/L	
Hg2700-1	DM2	SAM	F710411-MS1	1.25	10/20/17 12:54	26781-1.RAW	12:54:25	408.25		X	408.3	0.748	0.935	ng/L	
Hg2700-1	DM2	SAM	F710411-MSD1	1.25	10/20/17 13:04	26782-1.RAW	13:04:55	358.46		X	358.5	0.657	0.821	ng/L	
Hg2700-1	DM2	SAM	F710411-MS2	1.25	10/20/17 13:15	26783-1.RAW	13:15:26	336.74		X	336.7	0.617	0.772	ng/L	
Hg2700-1	DM2	SAM	F710411-MSD2	1.25	10/20/17 13:25	26784-1.RAW	13:25:57	326.12		X	326.1	0.598	0.747	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	10/20/17 13:36	26785-1.RAW	13:36:28	254.91			254.9	0.467	0.467	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	10/20/17 13:46	26786-1.RAW	13:46:58	1.38			1.4	0.003	0.003	ng/L	
Hg2700-1	DM2	SAM	1710143-01	1.25	10/20/17 13:57	26787-1.RAW	13:57:29	22.12		X	22.1	0.041	0.051	ng/L	
Hg2700-1	DM2	SAM	1710143-02	1.25	10/20/17 14:08	26788-1.RAW	14:08:00	25.70		X	25.7	0.047	0.059	ng/L	
Hg2700-1	DM2	SAM	1710143-03	1.25	10/20/17 14:18	26789-1.RAW	14:18:31	19.27		X	19.3	0.035	0.044	ng/L	
Hg2700-1	DM2	SAM	1710143-04	1.25	10/20/17 14:29	26790-1.RAW	14:29:01	20.02		X	20.0	0.037	0.046	ng/L	
Hg2700-1	DM2	SAM	1710143-05	1.25	10/20/17 14:39	26791-1.RAW	14:39:32	19.84		X	19.8	0.036	0.045	ng/L	
Hg2700-1	DM2	SAM	1710143-06	1.25	10/20/17 14:50	26792-1.RAW	14:50:03	13.54		X	13.5	0.025	0.031	ng/L	
Hg2700-1	DM2	SAM	1710351-01	1.25	10/20/17 15:00	26793-1.RAW	15:00:33	29.40		X	29.4	0.054	0.067	ng/L	
Hg2700-1	DM2	SAM	1710351-03	1.25	10/20/17 15:11	26794-1.RAW	15:11:04	14.23		X	14.2	0.026	0.033	ng/L	
Hg2700-1	DM2	SAM	1710351-04	1.25	10/20/17 15:21	26795-1.RAW	15:21:35	41.63		X	41.6	0.076	0.095	ng/L	
Hg2700-1	DM2	SAM	1710351-05	1.25	10/20/17 15:32	26796-1.RAW	15:32:06	40.14		X	40.1	0.074	0.092	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	10/20/17 15:42	26797-1.RAW	15:42:36	255.45			255.4	0.468	0.468	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	10/20/17 15:53	26798-1.RAW	15:53:07	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1710351-07	1.25	10/20/17 16:03	26799-1.RAW	16:03:38	51.26		X	51.3	0.094	0.117	ng/L	
Hg2700-1	DM2	SAM	1710351-08	1.25	10/20/17 16:14	26800-1.RAW	16:14:09	1.81		X	1.8	0.003	0.004	ng/L	
Hg2700-1	DM2	SAM	1710360-01	1.25	10/20/17 16:24	26801-1.RAW	16:24:39	0.00		X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1710360-02	1.25	10/20/17 16:35	26802-1.RAW	16:35:10	6.09		X	6.1	0.011	0.014	ng/L	
Hg2700-1	DM2	SAM	1710360-03	1.25	10/20/17 16:45	26803-1.RAW	16:45:41	0.00		X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1710360-04	1.25	10/20/17 16:56	26804-1.RAW	16:56:12	0.00		X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1710366-01RE1	1.25	10/20/17 17:06	26805-1.RAW	17:06:42	20.17		X	20.2	0.037	0.046	ng/L	
Hg2700-1	DM2	SAM	1710478-02	1.25	10/20/17 17:17	26806-1.RAW	17:17:13	12.05		X	12.0	0.022	0.028	ng/L	
Hg2700-1	DM2	SAM	1710581-01	1.25	10/20/17 17:27	26807-1.RAW	17:27:44	486.91		X	486.9	0.892	1.116	ng/L	
Hg2700-1	DM2	SAM	1710581-02	1.25	10/20/17 17:38	26808-1.RAW	17:38:15	4959.62		X	4959.6	9.091	11.363	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	10/20/17 17:48	26809-1.RAW	17:48:45	281.90			281.9	0.517	0.517	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	10/20/17 17:59	26810-1.RAW	17:59:16	1.33			1.3	0.002	0.002	ng/L	
Hg2700-1	DM2	BLK	F710421-BLK1	500	10/20/17 18:09	26811-1.RAW	18:09:46	0.00		1	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F710421-BLK2	500	10/20/17 18:20	26812-1.RAW	18:20:16	0.00		1	0.0	0.000	0.000	ng/L	

Sample				Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Instrument	Analyst	Type	LabNumber												
Hg2700-1	DM2	BLK	F710421-BLK3 ✓	500	10/20/17 18:30	26813-1.RAW	18:30:46	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLK4 ✓	500	10/20/17 18:41	26814-1.RAW	18:41:17	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLK5 ✓	500	10/20/17 18:51	26815-1.RAW	18:51:48	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLK6 ✓	500	10/20/17 19:02	26816-1.RAW	19:02:18	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLK7 ✓	500	10/20/17 19:12	26817-1.RAW	19:12:49	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F710421-BS1 ✓	1000	10/20/17 19:23	26818-1.RAW	19:23:20	748.69	1		748.7	1.372	1372.305	ng/L	
Hg2700-1	DM2	SAM	F710421-BSD1 ✓	1000	10/20/17 19:33	26819-1.RAW	19:33:50	801.00	1		801.0	1.468	1468.204	ng/L	
Hg2700-1	DM2	SAM	F710421-DUP1 ✓	500	10/20/17 19:44	26820-1.RAW	19:44:21	123.30	1		123.3	0.226	112.998	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4 ✓	1	10/20/17 19:54	26821-1.RAW	19:54:52	259.54	1		259.5	0.476	0.476	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4 ✓	1	10/20/17 20:05	26822-1.RAW	20:05:22	1.21	1		1.2	0.002	0.002	ng/L	
Hg2700-1	DM2	SAM	F710421-MS1 ✓	500	10/20/17 20:15	26823-1.RAW	20:15:53	661.36	1		661.4	1.212	606.117	ng/L	
Hg2700-1	DM2	SAM	F710421-MSD1 ✓	500	10/20/17 20:26	26824-1.RAW	20:26:24	645.43	1		645.4	1.183	591.523	ng/L	
Hg2700-1	DM2	SAM	F710421-MS2 ✓	500	10/20/17 20:36	26825-1.RAW	20:36:54	526.77	1		526.8	0.966	482.773	ng/L	
Hg2700-1	DM2	SAM	F710421-MSD2 ✓	500	10/20/17 20:47	26826-1.RAW	20:47:25	605.33	1		605.3	1.110	554.771	ng/L	
Hg2700-1	DM2	SAM	1708118-01 ✓	500	10/20/17 20:57	26827-1.RAW	20:57:56	129.03	1		129.0	0.237	118.250	ng/L	
Hg2700-1	DM2	SAM	1708118-02 ✓	500	10/20/17 21:08	26828-1.RAW	21:08:27	100.64	1		100.6	0.184	92.236	ng/L	
Hg2700-1	DM2	SAM	1708118-03 ✓	500	10/20/17 21:18	26829-1.RAW	21:18:57	161.91	1		161.9	0.297	148.383	ng/L	
Hg2700-1	DM2	SAM	1708118-04 ✓	500	10/20/17 21:29	26830-1.RAW	21:29:28	136.81	1		136.8	0.251	125.381	ng/L	
Hg2700-1	DM2	SAM	1708118-05 ✓	500	10/20/17 21:39	26831-1.RAW	21:39:59	144.68	1		144.7	0.265	132.599	ng/L	
Hg2700-1	DM2	SAM	1708240-01 ✓	500	10/20/17 21:50	26832-1.RAW	21:50:29	96.48	1		96.5	0.177	88.423	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5 ✓	1	10/20/17 22:01	26833-1.RAW	22:01:00	266.99	1		267.0	0.489	0.489	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5 ✓	1	10/20/17 22:11	26834-1.RAW	22:11:31	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1708240-02 ✓	500	10/20/17 22:22	26835-1.RAW	22:22:01	63.88	1		63.9	0.117	58.543	ng/L	
Hg2700-1	DM2	SAM	1708240-03 ✓	500	10/20/17 22:32	26836-1.RAW	22:32:32	73.32	1		73.3	0.134	67.195	ng/L	
Hg2700-1	DM2	SAM	1708240-04 ✓	500	10/20/17 22:43	26837-1.RAW	22:43:03	88.06	1		88.1	0.161	80.709	ng/L	
Hg2700-1	DM2	SAM	1708240-05 ✓	500	10/20/17 22:53	26838-1.RAW	22:53:33	61.50	1		61.5	0.113	56.359	ng/L	
Hg2700-1	DM2	SAM	1708241-01 ✓	500	10/20/17 23:04	26839-1.RAW	23:04:04	89.65	1		89.7	0.164	82.165	ng/L	
Hg2700-1	DM2	SAM	1708241-02 ✓	500	10/20/17 23:14	26840-1.RAW	23:14:35	151.15	1		151.2	0.277	138.528	ng/L	
Hg2700-1	DM2	SAM	1708241-03 ✓	500	10/20/17 23:25	26841-1.RAW	23:25:05	152.41	1		152.4	0.279	139.684	ng/L	
Hg2700-1	DM2	SAM	1708241-04 ✓	500	10/20/17 23:35	26842-1.RAW	23:35:36	213.70	1		213.7	0.392	195.854	ng/L	
Hg2700-1	DM2	SAM	1708241-05 ✓	500	10/20/17 23:46	26843-1.RAW	23:46:07	137.84	1		137.8	0.253	126.330	ng/L	
Hg2700-1	DM2	SAM	1708241-11 ✓	500	10/20/17 23:56	26844-1.RAW	23:56:37	114.70	1		114.7	0.210	105.116	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6 ✓	1	10/20/17 0:07	26845-1.RAW	0:07:08	245.62	1		245.6	0.450	0.450	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6 ✓	1	10/20/17 0:17	26846-1.RAW	0:17:39	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1708241-12 ✓	500	10/20/17 0:28	26847-1.RAW	0:28:09	95.58	1		95.6	0.175	87.597	ng/L	
Hg2700-1	DM2	SAM	1708241-13 ✓	500	10/20/17 0:38	26848-1.RAW	0:38:40	104.99	1		105.0	0.192	96.218	ng/L	
Hg2700-1	DM2	SAM	1708241-14 ✓	500	10/20/17 0:49	26849-1.RAW	0:49:11	45.62	1		45.6	0.084	41.812	ng/L	
Hg2700-1	DM2	SAM	1708241-15 ✓	500	10/20/17 0:59	26850-1.RAW	0:59:41	102.01	1		102.0	0.187	93.488	ng/L	
Hg2700-1	DM2	SAM	F710421-BS2 ✓	1000	10/20/17 1:10	26851-1.RAW	1:10:12	608.39	1		608.4	1.115	1115.151	ng/L	
Hg2700-1	DM2	SAM	F710421-BSD2 ✓	1000	10/20/17 1:20	26852-1.RAW	1:20:43	591.65	1		591.6	1.084	1084.459	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV7 ✓	1	10/20/17 1:31	26853-1.RAW	1:31:13	236.36	1		236.4	0.433	0.433	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB7 ✓	1	10/20/17 1:41	26854-1.RAW	1:41:44	0.00	1		0.0	0.000	0.000	ng/L	

ANALYSIS SEQUENCE

7J22009

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/20/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J22009-IBL1 ✓	QC	1			
7J22009-CAL1 ✓	QC	2	1706041	✓	
7J22009-CAL2 ✓	QC	3	1706042	✓	
7J22009-CAL3 ✓	QC	4	1706043	✓	
7J22009-CAL4 ✓	QC	5	1706044	✓	
7J22009-CAL5 ✓	QC	6	1706045	✓	
7J22009-ICV1 ✓	QC	7	1705084	✓	
7J22009-ICB1 ✓	QC	8			
7J22009-CCV1 ✓	QC	9	1705084	✓	
7J22009-CCB1 ✓	QC	10			
7J22009-CCV2 ✓	QC	11	1705084	✓	
7J22009-CCB2 ✓	QC	12			
7J22009-CCV3 ✓	QC	13	1705084	✓	
7J22009-CCB3 ✓	QC	14			
F710421-BLK1 ✓	QC	15			
F710421-BLK2 ✓	QC	16			
F710421-BLK3 ✓	QC	17			
F710421-BLK4 ✓	QC	18			
F710421-BLK5 ✓	QC	19			
F710421-BLK6 ✓	QC	20			
F710421-BLK7 ✓	QC	21			
F710421-BS1 ✓	QC	22			
F710421-BSD1 ✓	QC	23			
F710421-DUP1 ✓	QC	24			
7J22009-CCV4 ✓	QC	25	1705084	✓	
7J22009-CCB4 ✓	QC	26			
F710421-MS1 ✓	QC	27			
F710421-MSD1 ✓	QC	28			
F710421-MS2 ✓	QC	29			
F710421-MSD2 ✓	QC	30			
1708118-01 ✓	MHg-CVAFS-T-KOH	31			
1708118-02 ✓	MHg-CVAFS-T-KOH	32			
1708118-03 ✓	MHg-CVAFS-T-KOH	33			
1708118-04 ✓	MHg-CVAFS-T-KOH	34			
1708118-05 ✓	MHg-CVAFS-T-KOH	35			

Due Date: 11/15/2017

ANALYSIS SEQUENCE

7J22009

Instrument: Hg2700-1
Calibration ID: UNASSIGNED
Analyzed: 10/20/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708240-01 ✓	MHg-CVAFS-T-KOH	36			
7J22009-CCV5 ✓	QC	37	1705084 ✓		
7J22009-CCB5 ✓	QC	38			
1708240-02 ✓	MHg-CVAFS-T-KOH	39			
1708240-03 ✓	MHg-CVAFS-T-KOH	40			
1708240-04 ✓	MHg-CVAFS-T-KOH	41			
1708240-05 ✓	MHg-CVAFS-T-KOH	42			
1708241-01 ✓	MHg-CVAFS-T-KOH	43			
1708241-02 ✓	MHg-CVAFS-T-KOH	44			
1708241-03 ✓	MHg-CVAFS-T-KOH	45			
1708241-04 ✓	MHg-CVAFS-T-KOH	46			
1708241-05 ✓	MHg-CVAFS-T-KOH	47			
1708241-11 ✓	MHg-CVAFS-T-KOH	48			
7J22009-CCV6 ✓	QC	49	1705084 ✓		
7J22009-CCB6 ✓	QC	50			
1708241-12 ✓	MHg-CVAFS-T-KOH	51			
1708241-13 ✓	MHg-CVAFS-T-KOH	52			
1708241-14 ✓	MHg-CVAFS-T-KOH	53			
1708241-15 ✓	MHg-CVAFS-T-KOH	54			
F710421-BS2 ✓	QC	55			
F710421-BSD2 ✓	QC	56			
7J22009-CCV7 ✓	QC	57	1705084 ✓		
7J22009-CCB7 ✓	QC	58			

 Dan Moxem 10/20/17
 Samples Loaded By Date

 Dan Moxem 10/22/17
 Data Processed By Date

PREPARATION BENCH SHEET

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710421-BLK1	Blank	0.25	20					
F710421-BLK2	Blank	0.25	20					
F710421-BLK3	Blank	0.25	20					
F710421-BLK4	Blank	0.282	20					Pre-homogenization Blank for 1708118/1708119
F710421-BLK5	Blank	0.27	20					Post-homogenization Blank for 1708118/1708119
F710421-BLK6	Blank	0.283	20					Pre-homogenization Blank for 1708240/1708241
F710421-BLK7	Blank	0.278	20					Pre-homogenization Blank for 1708240/1708241
F710421-BS1	LCS	0.1259	20	1705412	125.9			
F710421-BS2	LCS	0.1259	20	1705412	125.9			
F710421-BSD1	LCS Dup	0.1275	20	1705412	127.5			
F710421-BSD2	LCS Dup	0.1275	20	1705412	127.5			
F710421-DUP1	Duplicate [1708118-01]	0.263	20					
F710421-MS1	Matrix Spike [1708118-01]	0.262	20	1705977	100			
F710421-MS2	Matrix Spike [1708241-01]	0.275	20	1705977	100			
F710421-MSD1	Matrix Spike Dup [1708118-01]	0.256	20	1705977	100			
F710421-MSD2	Matrix Spike Dup [1708241-01]	0.265	20	1705977	100			

<u>Standard ID(s):</u> 1705412	<u>Description:</u> DORM-4	<u>Expiration:</u> 06-Jan-20 00:00	<u>Reagent ID(s):</u> 1702551	<u>Description:</u> Boiling Chips for AFS prep	<u>Expiration:</u> 31-Dec-17 00:00
1705977	MHg New Primary 100 ng/mL spike	06-Jan-20 00:00 15-Sep-18 00:00	1704707	Acetate Buffer	29-Jan-18 00:00
			1705427	Methanol, HPLC Grade	08-Sep-20 00:00
			1705837	25% KOH/Methanol	03-Feb-18 00:00
			1706016	Ethylating Agent (For Methyl Mercury Analysis)	08-Apr-18 00:00

Due Date: 11/15/2017

PREPARATION BENCH SHEET

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708118-01	OB-01_17HC001_072517_POL_01_WB	0.254	20	QC	-	-	MS/MSD	
1708118-02	OB-01_17HC001_072517_POL_02_WB	0.265	20	-	-	-		
1708118-03	OB-01_17HC001_072517_POL_03_WB	0.288	20	-	-	-		
1708118-04	OB-01_17HC001_072517_POL_04_WB	0.256	20	-	-	-		
1708118-05	OB-01_17HC001_072517_POL_05_WB	0.258	20	-	-	-		
1708240-01	MM-MR_INT_17HC001_080117_POL_01_WB	0.268	20	-	-	-		
1708240-02	MM-MR_INT_17HC001_080117_POL_02_WB	0.285	20	-	-	-		
1708240-03	MM-MR_INT_17HC001_080117_POL_03_WB	0.275	20	-	-	-		
1708240-04	MM-MR_INT_17HC001_080117_POL_04_WB	0.273	20	-	-	-		
1708240-05	MM-MR_INT_17HC001_080117_POL_05_WB	0.268	20	-	-	-		
1708241-01	ES-02E_17HC001_073117_POL_01_WB	0.26	20	QC	-	-	MS/MSD	
1708241-02	ES-02E_17HC001_073117_POL_02_WB	0.269	20	-	-	-		
1708241-03	ES-02E_17HC001_073117_POL_03_WB	0.287	20	-	-	-		
1708241-04	ES-02E_17HC001_073117_POL_04_WB	0.26	20	-	-	-		
1708241-05	ES-02E_17HC001_073117_POL_05_WB	0.273	20	-	-	-		
1708241-11	BFK_17HC001_073117_POL_01_WB	0.26	20	-	-	-		
1708241-12	BFK_17HC001_073117_POL_02_WB	0.255	20	-	-	-		
1708241-13	BFK_17HC001_073117_POL_03_WB	0.257	20	-	-	-		
1708241-14	BFK_17HC001_073117_POL_04_WB	0.254	20	-	-	-		

PREPARATION BENCH SHEET

F710421

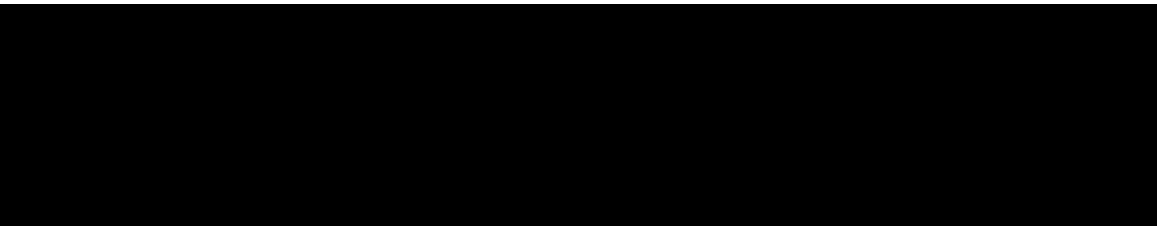
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

1708241-15	BFK_17HC001_073117_POL_05_WB	0.258	20	-	-	-		
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PREPARATION BENCH SHEET

2700-1

10/20/17 JM

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710421-BLK1	Blank	0.25	20					500X
F710421-BLK2	Blank	0.25	20					500X
F710421-BLK3	Blank	0.25	20					500X
F710421-BLK4	Blank	0.282	20					Pre-homogenization Blank for 1708118/1708119 500X
F710421-BLK5	Blank	0.27	20					Post-homogenization Blank for 1708118/1708119 500X
F710421-BLK6	Blank	0.283	20					Pre-homogenization Blank for 1708240/1708241 500X
F710421-BLK7	Blank	0.278	20					Pre-homogenization Blank for 1708240/1708241 500X
F710421-BS1	LCS	0.1259	20	1705412	125.9			1000X
F710421-BSD1	LCS Dup	0.1275	20	1705412	127.5			1000X
F710421-DUP1	Duplicate [1708118-01]	0.263	20					500X
F710421-MS1	Matrix Spike [1708118-01]	0.262	20	1705977	100			500X
F710421-MS2	Matrix Spike [1708241-01]	0.275	20	1705977	100			500X
F710421-MSD1	Matrix Spike Dup [1708118-01]	0.256	20	1705977	100			500X
F710421-MSD2	Matrix Spike Dup [1708241-01]	0.265	20	1705977	100			500X

<u>Standard ID(s):</u> 1705412	<u>Description:</u> DORM-4	<u>Expiration:</u> 06-Jan-20 00:00	<u>Reagent ID(s):</u> 1702551	<u>Description:</u> Boiling Chips for AFS prep	<u>Expiration:</u> 31-Dec-17 00:00
1705977	MHg New Primary 100 ng/mL spike	06-Jan-20 00:00	1705427	Methanol, HPLC Grade	08-Sep-20 00:00
		15-Sep-18 00:00	1705837	25% KOH/Methanol	03-Feb-18 00:00

1704707

1706016

Due Date: 11/15/2017

PREPARATION BENCH SHEET

2700-1
10/20/17 DM

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708118-01	OB-01_17HC001_072517_POL_01_WB	0.254	20	QC	-	-	MS/MSD	500X -
1708118-02	OB-01_17HC001_072517_POL_02_WB	0.265	20	-	-	-		500X -
1708118-03	OB-01_17HC001_072517_POL_03_WB	0.288	20	-	-	-		500X -
1708118-04	OB-01_17HC001_072517_POL_04_WB	0.256	20	-	-	-		500X -
1708118-05	OB-01_17HC001_072517_POL_05_WB	0.258	20	-	-	-		500X -
1708240-01	MM-MR_INT_17HC001_080117_POL_01_WB	0.268	20	-	-	-		500X -
1708240-02	MM-MR_INT_17HC001_080117_POL_02_WB	0.285	20	-	-	-		500X -
1708240-03	MM-MR_INT_17HC001_080117_POL_03_WB	0.275	20	-	-	-		500X -
1708240-04	MM-MR_INT_17HC001_080117_POL_04_WB	0.273	20	-	-	-		500X -
1708240-05	MM-MR_INT_17HC001_080117_POL_05_WB	0.268	20	-	-	-		500X -
1708241-01	ES-02E_17HC001_073117_POL_01_WB	0.26	20	QC	-	-	MS/MSD	500X -
1708241-02	ES-02E_17HC001_073117_POL_02_WB	0.269	20	-	-	-		500X -
1708241-03	ES-02E_17HC001_073117_POL_03_WB	0.287	20	-	-	-		500X -
1708241-04	ES-02E_17HC001_073117_POL_04_WB	0.26	20	-	-	-		500X -
1708241-05	ES-02E_17HC001_073117_POL_05_WB	0.273	20	-	-	-		500X -
1708241-11	BFK_17HC001_073117_POL_01_WB	0.26	20	-	-	-		500X -
1708241-12	BFK_17HC001_073117_POL_02_WB	0.255	20	-	-	-		500X -
1708241-13	BFK_17HC001_073117_POL_03_WB	0.257	20	-	-	-		500X -
1708241-14	BFK_17HC001_073117_POL_04_WB	0.254	20	-	-	-		500X -

PREPARATION BENCH SHEET

2700-1

10/20/17 DM

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

1708241-15	BFK_17HC001_073117_POL_05_WB	0.258	20	-	-	-	500X
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Technician: CF Batch#: F710421 Date: 10/19/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance #: 6.14 (200mm) Calibrated? Yes No Therm. #: 13698 Calibrated? Yes No

*Time in: 19:15 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C

Time out: 22:15 Actual Temp. (raw): Timer °C w/ CF: Timer °C

*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705427) Spike vol.: 100 µL (LIMS ID: 1705477)

Spike Witness: DM 10/19/17 (initial and date)

HCl LIMS ID: N/A

HNO₃ LIMS ID: N/A

70/30 LIMS ID: N/A

Other Acid LIMS ID: KOH/methanol: 1705897

Glass Vial # 00088647 Boiling Chip lot # 1702551 *Hotblock Position: AB

Pipette SN#: NU09663 Calibration Date: 10/18/17

Pipette SN#: NU01192 Calibration Date: 10/18/17

Dispenser #: 02N48426 Calibrated? Yes No

Dispenser #: N/A

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710421 - Blk1	0.256	23	1708240 - 04	0.273	BS1/BSD1 = DUBM4
2	F710421 - Blk2	0.278	24	1708240 - 05	0.268	LPAS: 1705427
3	F710421 - Blk3	0.250	25	1708241 - 01	0.260	MS/MSD
4	F710421 - Blk4	0.282	26	1708241 - 02	0.269	Comments
5	F710421 - Blk5	0.270	27	1708241 - 03	0.287	MS/MSD = spiked
6	F710421 - Blk6	0.283	28	1708241 - 04	0.260	with 100µL
7	F710421 - Blk7	0.278	29	1708241 - 05	0.273	1705997
8	F710421 - BS1	0.1259	30	1708241 - 11	0.260	DUB/MS/MSD
9	F710421 - BSD1	0.1275	31	1708241 - 12	0.255	source: 170818-01
10	170888 1708118 - 01	0.254	32	1708241 - 13	0.257	MS/MSD2
11	F710421 - DUB1	0.263	33	1708241 - 14	0.254	source: 1708241-01
12	F710421 - MS1	0.262	34	1708241 - 15	0.258	
13	F710421 - MSD1	0.256	35			Blk 4-5 are
14	1708118 - 02	0.265	36			Pre/Post blanks
15	1708118 - 03	0.288	37			for 1708118/1708119
16	1708118 - 04	0.256	38			Blk 6-7 are Pre/Post
17	1708118 - 05	0.258	39			blanks for 1708240
18	1708240 - 01	0.268	40			and 1708241
19	F710421 - MS2	0.275	41			
20	F710421 - MSD2	0.265	42			
21	1708240 - 02	0.285	43			
22	1708240 - 03	0.275	44			

Failing Data Report - 7J22009

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F710421-BS1	MHg-CVAFS-T-KOH	218.0	7.9			322.00	ng/g	67.7	70.00	130.00			PASS-OVER	FAIL-BS	
F710421-BS2	MHg-CVAFS-T-KOH	177.1	7.9			322.00	ng/g	55.0	70.00	130.00			PASS-OVER	FAIL-BS	
F710421-BSD2	MHg-CVAFS-T-KOH	170.1	7.8	177.1		322.00	ng/g	52.8	70.00	130.00	4.05	25.00	PASS-OVER	FAIL-BSD (Rec.)	

Handwritten initials/signature

T. Don *M. Green*
 Analyst Reviewed By

10/22/17
 Date

[Signature]
 Peer Reviewed By

10/23/17
 Date

Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)

Analyst: DON MORAN	Sequence #: 7J22008, 7J22009
Reviewer: <i>R 10/23/17</i>	Dataset ID #: MHG27001-171020-1, MHG27001-171020-2
Date: 10-22-17	WO #: VARIOUS
Batch #(s): F710421, F710411	Client(s): VARIOUS

• Select the correct preparation method.

Additional Comments:

Analyte	Prep Method	Matrix
<input checked="" type="checkbox"/> MHg	SOP2797 MHg Distillation	Water
<input checked="" type="checkbox"/> MHg	SOP2986 KOH/MeOH Digest	Tissue
<input type="checkbox"/> MHg	SOP5134 MeCl Extraction	Sed/Soil
<input type="checkbox"/> DMHg	SOP2816 (None Accredited method)	ALL

Analyst Initials:

Dm

Reviewer Initials:

R 10/23/17

- | |
|---|
| <p>1. Compare Sample ID with Bench sheet/Sequence/Raw Data (Have all samples been imported?) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p>2. Check for transcription errors from Excel spreadsheet (or Prep Bench sheet)/Raw data <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(a) Reviewer: 100% of peak heights checked <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(b) Are there peak height errors? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(c) Error on a sample: Do peak heights, responses, & initial results match corrected data? <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(d) Error on a Cal Pt, ICB/CCB, or PB: Has the data been reimported? <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(e) Check standards & reagents in sequence & bench sheet for correct usage (i.e. expiries). <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(f) Check and compare masses (review prep bench sheet) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(g) Check and compare initial and final volumes <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(h) Do aliquots and dilutions written on benchsheet match those in Excel? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(i) Is the pH>3.0 for all distilled samples? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(j) Is the sequence #, analyst, date, and instrument # on the QC page? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(k) Is the analysis status correct? (analyzed/initial review/reviewed) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(l) Original prep bench sheet added to data package? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(m) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p>3. High QA? WO#(s)/Client(s): _____ <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p>4. Client specific QC? (if Yes, refer to Project Notes/LIMS) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(a) Have the QC requirements been met for all WO#s? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p>5. 20 or fewer samples in batch? _____ <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(a) 3 PBs, 1 LCS/LCSD (or BS/BSD), 2 MS/MSD/MD per batch? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p style="margin-left:20px;">(b) 1 CCV and 1 CCB every 10 analytical runs? _____ <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p>QA/QC Data Checked</p> <p>6. The calibration curve included a minimum of 5 Standards <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p> <p>Comments: _____</p> <p>7. 1st Calibration Standard % Recoveries (65-135%) <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p> <p>Comments: _____</p> <p>8. RSD CF (≤ 15%) <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/></p> <p>Comments: _____</p> |
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Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)

Analyst:	DON MORAN	Sequence #:	7J22008, 7J22009
Reviewer:	0 <i>R 10/23/17</i>	Dataset ID #:	MHG27001-171020-1, MHG27001-171020-2
Date:	10/22/2017	WO #:	VARIOUS
Batch #(s):	F710421, F710411	Client(s):	VARIOUS

Analyst Initials:

DM

Reviewer Initials:

R 10/23/17

- | | | | | |
|--|--|--|---|-------------------------------------|
| 9. ICV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 10. CCV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 11. Are the absolute value of the ICB and CCBs < PQL? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%) | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: F710421-BS1, BS2, BSD2 FAILED. LOW RECOVERY | | | | |
| 13. LCS/LCSD or BS/BSD RPD (< 25%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 14. Water: Average of Preparation Blanks < 0.045 ng/L and standard deviation of 0.015 ng/L? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 15. Sediment/Tissue: Individually, are the Preparation Blanks < PQL for the matrix? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| 16. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 17. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 18. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 19. MD RPD/MT RSD(< 35%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 20. Is there one set of MS/MSD per every 10 samples? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 21. MS/MSD RPD(< 35%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 22. MS (AS) % Recoveries (65-130%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 23. MSD (ASD) % Recoveries (65-130%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| 25. Are all samples within instrument calibration range (or at maximum aliquot size)? | <input checked="" type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | <input checked="" type="checkbox"/> |
| Comments: 1710581-02 HIGH SAMPLE. ABOVE CAL5 | | | | |
| 26. For instrumental dilutions, is the dilution factor in excel correct? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Is the sample volume, diluents, and final volume of the dilution noted on benchsheet? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> NO | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 27. Dissolved < Total metals (if applicable) | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |
| 28. Effluent < Influent metals (visually confirm if needed) | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Comments: _____ | | | | |

Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)

Analyst:	DON MORAN	Sequence #:	7J22008, 7J22009
Reviewer:	0 R 10/23/17	Dataset ID #:	MHG27001-171020-1, MHG27001-171020-2
Date:	10/22/2017	WO #:	VARIOUS
Batch #(s):	F710421, F710411	Client(s):	VARIOUS

Analyst Initials:

DM

Reviewer Initials:

R 10/23/17

29. Are re-runs noted with reason? YES NO N/A
- Comments: _____
30. For failing QC (CCV, CCB, PB, BS/BSD, CAL): YES NO N/A
- Was a bubbler and trap test run before the analytical run continued?
 Comments: _____
31. Do re-run results compare to initial analysis (< 35% RPD)? YES NO N/A
- Comments: _____
32. Are qualifiers consistent with the data review flowcharts? YES NO N/A
- Comments: _____
33. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
- Comments: _____
34. Have re-extracts been created for non-reportable samples? YES NO N/A
35. Narrations in MMO box in LIMS?
 Comments: _____
36. Are there any HIGH QA projects within the data? YES NO
 If so, place dataset to the QA office.
37. Does the data set need scanning? YES N/A
- Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs
38. Date of analyst IDOC/CDOC: 6/13/2017 IDOC/CDOC within last 12 months? YES NO
39. Date of analyst's SOP reading: 5/23/2016 Current SOP revision? YES NO
40. Date of LOD: 4/24/17, 5/8/17 LOD within last 3 months (within 12 months for MDN)? YES NO N/A
41. Date of LOQ: 4/24/17, 5/8/17 LOQ within last 3 months (within 12 months for MDN)? YES NO N/A
42. If MDN samples, date of last MDL study: _____
43. MDL study within last 12 months? YES NO N/A

Data can not be reported without a current IDOC/CDOC, LOD or LOQ.

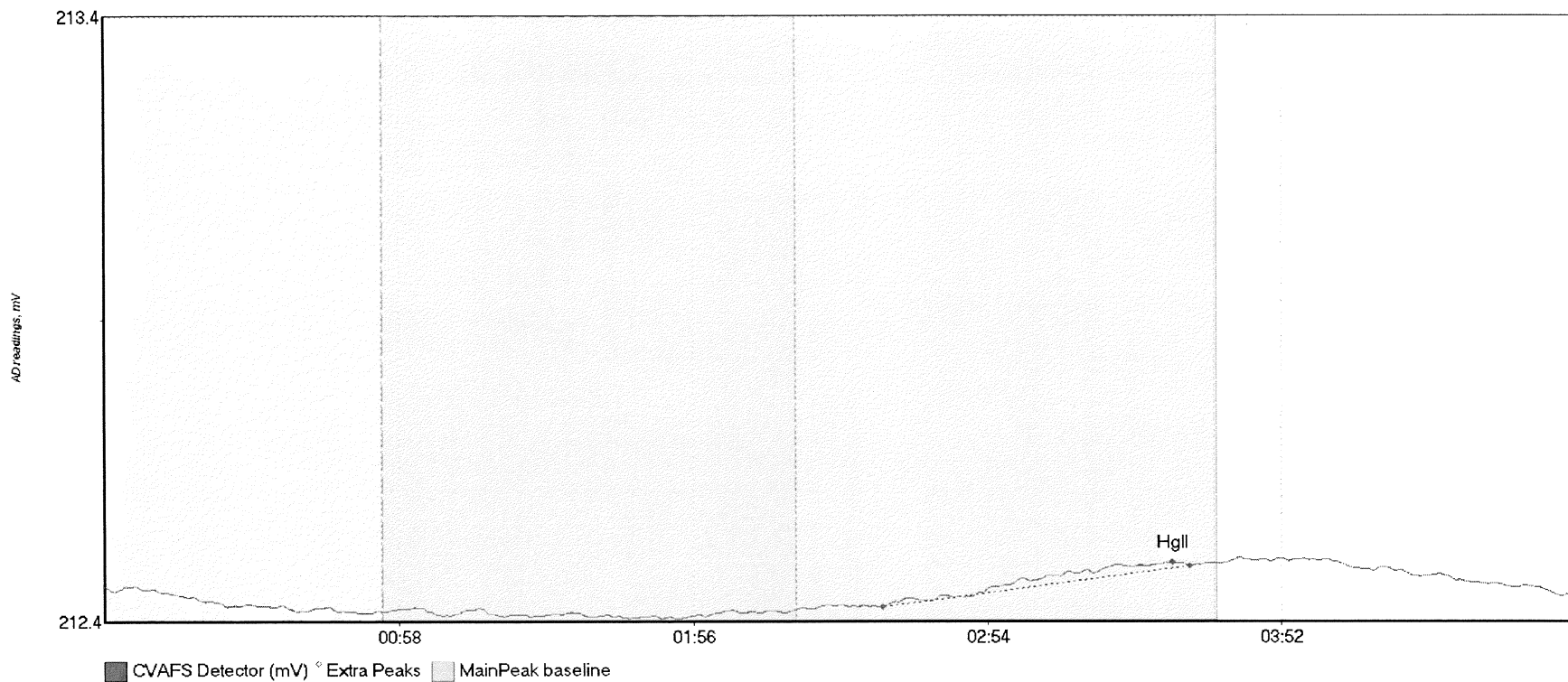
- Additional Comments: YES NO

MethylMercury EPA1630 Operat DM BlankSub: Calib Eqn: Run Date: ##### Blank SD: Works1 MHG27C CalibFactor: Status: Calibank error: Zero Per Run Time: 0:00:00 Blank RSD%: Methoc 2010-01 R: R*: CalibAnalyte: CF SD: CF RSD%:

Sample/ID	Locator	Rinse	Dilute	Blank	ConcHq0(p)	ConcMeHq(ConcHq2(p)	ConcPrHq(r)	Rec%	QA	RawData	RunEnd	PeakHq0 (Raw)	PeakMeHq (R)	PeakHq2(Raw)	PeakPrHq(Ra)	Control (etf)	Flags	RunCount
Clean																			
WS	A1										26765-1.RAW	10:06:13	0.00	0.00	5.81	0.00	cleandrv	OK	1
SEQ-IBL1	A2		1								26766-1.RAW	10:16:43	8.68	0.00	1.63	0.00	psample10	OK	1
SEQ-CAL1	A3		1								26767-1.RAW	10:27:14	6.52	0.00	6.19	0.00	psample10	OK	1
SEQ-CAL2	A4		1								26768-1.RAW	10:37:45	4.08	24.27	1.77	0.00	psample10	OK	1
SEQ-CAL3	A5		1								26769-1.RAW	10:48:16	6.61	104.65	6.72	0.00	psample10	OK	1
SEQ-CAL4	A6		1								26770-1.RAW	10:58:46	8.27	591.99	10.62	0.00	psample10	OK	1
SEQ-CAL5	A7		1								26771-1.RAW	11:09:17	8.70	1087.55	24.43	0.00	psample10	OK	1
SEQ-ICV1	A8		1								26772-1.RAW	11:19:48	15.03	2333.65	51.04	0.00	psample10	CT	1
SEQ-ICB1	A9		1								26773-1.RAW	11:30:19	5.96	280.11	5.67	0.00	psample10	CT	1
F710411-BLK1	A10		1.25								26774-1.RAW	11:40:49	4.81	3.13	0.00	0.00	psample10	OK	1
F710411-BLK2	A11		1.25								26775-1.RAW	11:51:20	5.88	1.53	12.57	0.00	psample10	OK	1
F710411-BLK3	A12		1.25								26776-1.RAW	12:01:51	4.03	0.78	5.58	0.00	psample10	OK	1
F710411-BS1	A13		1.25								26777-1.RAW	12:12:22	3.03	0.00	9.33	0.00	psample10	OK	1
F710411-BSD1	A14		1.25								26778-1.RAW	12:22:52	3.42	355.87	12.73	0.00	psample10	OK	1
F710411-DUP1	A15		1.25								26779-1.RAW	12:33:23	6.26	391.93	13.81	0.00	psample10	OK	1
F710411-MS1	A16		1.25								26780-1.RAW	12:43:54	3.99	27.78	47.61	0.00	psample10	OK	1
F710411-MSD1	A17		1.25								26781-1.RAW	12:54:25	6.86	408.25	48.79	0.00	psample10	OK	1
F710411-MS2	A18		1.25								26782-1.RAW	13:04:55	6.34	358.46	30.18	0.00	psample10	OK	1
F710411-MSD2	A19		1.25								26783-1.RAW	13:15:26	6.75	336.74	25.58	0.00	psample10	OK	1
SEQ-CCV1	A20		1								26784-1.RAW	13:25:57	4.84	326.12	37.13	0.00	psample10	OK	1
SEQ-CCB1	A21		1								26785-1.RAW	13:36:28	5.16	254.91	4.40	0.00	psample10	CT	1
1710143-01	B1		1.25								26786-1.RAW	13:46:58	2.62	1.38	2.38	0.00	psample10	OK	1
1710143-02	B2		1.25								26787-1.RAW	13:57:29	2.71	22.12	60.28	0.00	psample10	OK	1
1710143-03	B3		1.25								26788-1.RAW	14:08:00	3.71	25.70	30.26	0.00	psample10	OK	1
1710143-04	B4		1.25								26789-1.RAW	14:18:31	4.74	19.27	20.33	0.00	psample10	OK	1
1710143-05	B5		1.25								26790-1.RAW	14:29:01	3.42	20.02	174.73	0.00	psample10	OK	1
1710143-06	B6		1.25								26791-1.RAW	14:39:32	3.69	19.84	33.39	0.00	psample10	OK	1
1710351-01	B7		1.25								26792-1.RAW	14:50:03	5.32	13.54	8.46	0.00	psample10	OK	1
1710351-03	B8		1.25								26793-1.RAW	15:00:33	4.09	29.40	95.88	0.00	psample10	OK	1
1710351-04	B9		1.25								26794-1.RAW	15:11:04	8.03	14.23	436.65	0.00	psample10	CT	1
1710351-05	B10		1.25								26795-1.RAW	15:21:35	2.89	41.63	78.20	0.00	psample10	OK	1
SEQ-CCV2	B11		1								26796-1.RAW	15:32:06	5.15	40.14	80.13	0.00	psample10	CT	1
SEQ-CCB2	B12		1								26797-1.RAW	15:42:36	2.42	255.45	2.48	0.00	psample10	OK	1
1710351-07	B13		1.25								26798-1.RAW	15:53:07	2.54	0.00	10.74	0.00	psample10	CT	1
1710351-08	B14		1.25								26799-1.RAW	16:03:38	4.48	51.26	35.17	0.00	psample10	OK	1
1710360-01	B15		1.25								26800-1.RAW	16:14:09	4.09	1.81	3.34	0.00	psample10	OK	1
1710360-02	B16		1.25								26801-1.RAW	16:24:39	4.55	0.00	20.94	0.00	psample10	OK	1
1710360-03	B17		1.25								26802-1.RAW	16:35:10	4.35	6.09	314.73	0.00	psample10	OK	1
1710360-04	B18		1.25								26803-1.RAW	16:45:41	4.42	0.00	17.14	0.00	psample10	OK	1
1710366-01RE1	B19		1.25								26804-1.RAW	16:56:12	3.54	0.00	15.16	0.00	psample10	OK	1
1710478-02	B20		1.25								26805-1.RAW	17:06:42	0.99	20.17	58.80	0.00	psample10	OK	1
1710581-01	B21		1.25								26806-1.RAW	17:17:13	3.12	12.05	26.01	0.00	psample10	OK	1
1710581-02	C1		1.25								26807-1.RAW	17:27:44	11.08	486.91	2057.18	0.00	psample10	OK	1
SEQ-CCV3	C2		1								26808-1.RAW	17:38:15	5493.16	4959.62	216093.96	0.00	psample10	CT	1
SEQ-CCB3	C3		1								26809-1.RAW	17:48:45	138.30	281.90	1197.19	0.00	psample10	CT	1
F710421-BLK1	C4		500								26810-1.RAW	17:59:16	56.18	1.33	329.32	0.00	psample10	CT	1
F710421-BLK2	C5		500								26811-1.RAW	18:09:46	38.05	0.00	181.21	0.00	psample10	OK	1
F710421-BLK3	C6		500								26812-1.RAW	18:20:16	24.07	0.00	115.49	0.00	psample10	CT	1
*F710421-BLK4	C7		500								26813-1.RAW	18:30:46	19.04	0.00	85.80	0.00	psample10	CT	1
*F710421-BLK5	C8		500								26814-1.RAW	18:41:17	15.80	0.00	60.77	0.00	psample10	OK	1
*F710421-BLK6	C9		500								26815-1.RAW	18:51:48	15.66	0.00	55.61	0.00	psample10	CT	1
*F710421-BLK7	C10		500								26816-1.RAW	19:02:18	12.33	0.00	39.38	0.00	psample10	OK	1
F710421-BS1	C11		1000								26817-1.RAW	19:12:49	6.19	0.00	41.40	0.00	psample10	OK	1
F710421-BSD1	C12		1000								26818-1.RAW	19:23:20	17.98	748.69	152.59	0.00	psample10	OK	1
F710421-DUP1	C13		500								26819-1.RAW	19:33:50	22.78	801.00	145.79	0.00	psample10	OK	1
SEQ-CCV4	C14		1								26820-1.RAW	19:44:21	15.73	123.30	282.21	0.00	psample10	OK	1
SEQ-CCB4	C15		1								26821-1.RAW	19:54:52	12.31	259.54	20.36	0.00	psample10	CT	1
F710421-MS1	C16		500								26822-1.RAW	20:05:22	11.15	1.21	18.04	0.00	psample10	OK	1
F710421-MSD1	C17		500								26823-1.RAW	20:15:53	14.11	661.36	305.83	0.00	psample10	OK	1
F710421-MS2	C18		500								26824-1.RAW	20:26:24	15.16	645.43	302.80	0.00	psample10	OK	1
F710421-MSD2	C19		500								26825-1.RAW	20:36:54	21.64	526.77	525.81	0.00	psample10	OK	1
1708118-01	C20		500								26826-1.RAW	20:47:25	26.88	605.33	508.43	0.00	psample10	CT	1
1708118-02	C21		500								26827-1.RAW	20:57:56	14.44	129.03	298.98	0.00	psample10	OK	1
1708118-03	A1		500								26828-1.RAW	21:08:27	13.32	100.64	264.96	0.00	psample10	OK	1
1708118-04	A2		500								26829-1.RAW	21:18:57	13.02	161.91	330.36	0.00	psample10	OK	1
1708118-05	A3		500								26830-1.RAW	21:29:28	18.47	136.81	309.13	0.00	psample10	CT	1
1708240-01	A4		500								26831-1.RAW	21:39:59	17.46	144.68	339.11	0.00	psample10	CT	1
SEQ-CCV5	A5		1								26832-1.RAW	21:50:29	19.75	96.48	462.94	0.00	psample10	OK	1
SEQ-CCB5	A6		1								26833-1.RAW	22:01:00	10.78	266.99	59.16	0.00	psample10	CT	1
1708240-02	A7		500								26834-1.RAW	22:11:31	5.43	0.00	32.87	0.00	psample10	OK	1
1708240-03	A8		500								26835-1.RAW	22:22:01	14.96	63.88	408.35	0.00	psample10	CT	1
1708240-04	A9		500								26836-1.RAW	22:32:32	12.75	73.32	306.07	0.00	psample10	CT	1
1708240-05	A10		500								26837-1.RAW	22:43:03	13.22	88.06	578.63	0.00	psample10	OK	1
											26838-1.RAW	22:53:33	18.78	61.50	501.25	0.00	psample10	CT	1

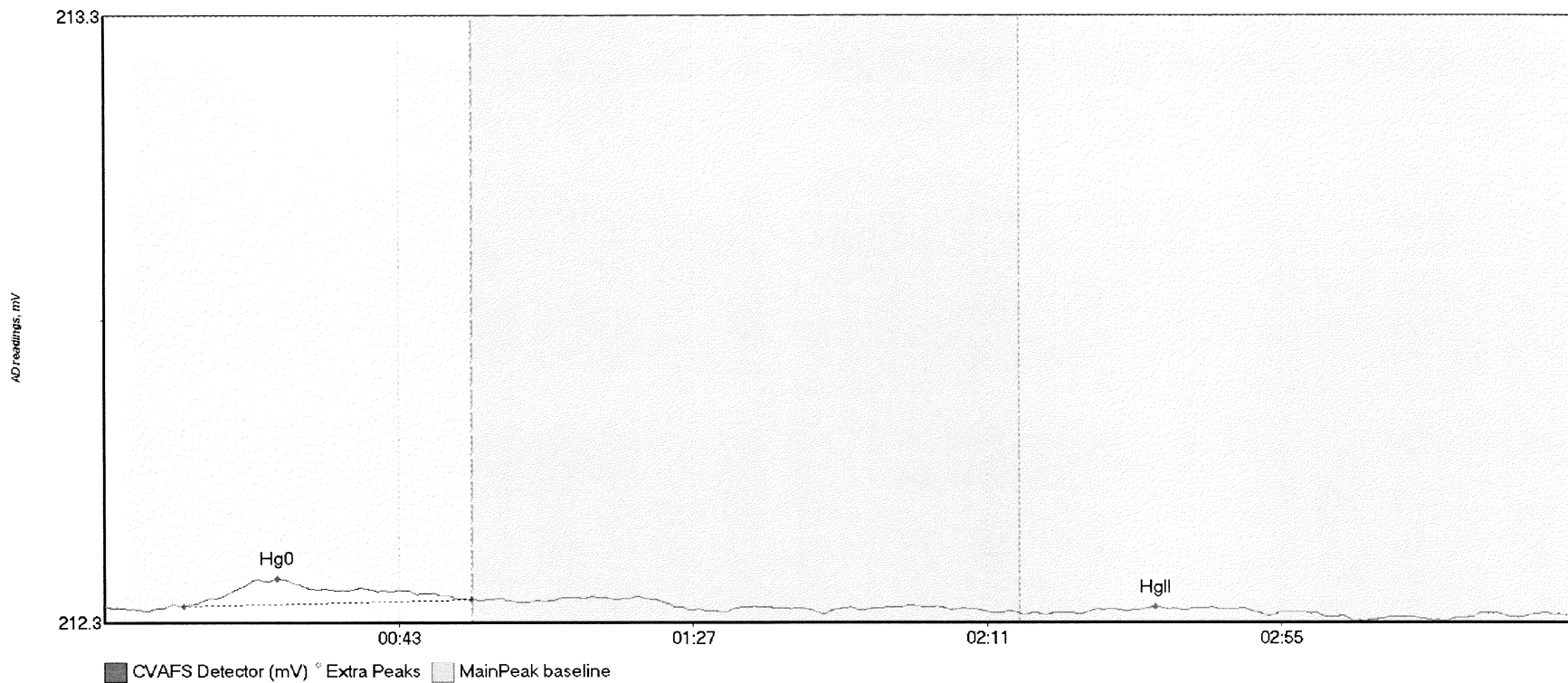
1708241-01	A11	500	26839-1.RAW	23:04:04	12.98	89.65	70.50	0.00	psample10	OK	1
1708241-02	A12	500	26840-1.RAW	23:14:35	11.60	151.15	185.53	0.00	psample10	OK	1
1708241-03	A13	500	26841-1.RAW	23:25:05	15.32	152.41	328.84	0.00	psample10	CT	1
1708241-04	A14	500	26842-1.RAW	23:35:36	14.47	213.70	329.90	0.00	psample10	CT	1
1708241-05	A15	500	26843-1.RAW	23:46:07	19.24	137.84	896.70	0.00	psample10	OK	1
1708241-11	A16	500	26844-1.RAW	23:56:37	12.21	114.70	151.98	0.00	psample10	CT	1
SEQ-CCV6	A17	1	26845-1.RAW	0:07:08	4.43	245.62	6.84	0.00	psample10	OK	1
SEQ-CCB6	A18	1	26846-1.RAW	0:17:39	5.15	0.00	7.46	0.00	psample10	OK	1
1708241-12	A19	500	26847-1.RAW	0:28:09	8.89	95.58	171.91	0.00	psample10	OK	1
1708241-13	A20	500	26848-1.RAW	0:38:40	9.74	104.99	84.46	0.00	psample10	CT	1
1708241-14	A21	500	26849-1.RAW	0:49:11	9.80	45.62	123.42	0.00	psample10	OK	1
1708241-15	B1	500	26850-1.RAW	0:59:41	14.74	102.01	203.71	0.00	psample10	CT	1
F710421-B52	B2	1000	26851-1.RAW	1:10:12	10.85	608.39	110.52	0.00	psample10	OK	1
F710421-B5D2	B3	1000	26852-1.RAW	1:20:43	5.39	591.65	95.98	0.00	psample10	OK	1
SEQ-CCV7	B4	1	26853-1.RAW	1:31:13	4.79	236.36	5.35	0.00	psample10	OK	1
SEQ-CCB7	B5	1	26854-1.RAW	1:41:44	5.04	0.00	8.99	0.00	psample10	OK	1

#1: Clean

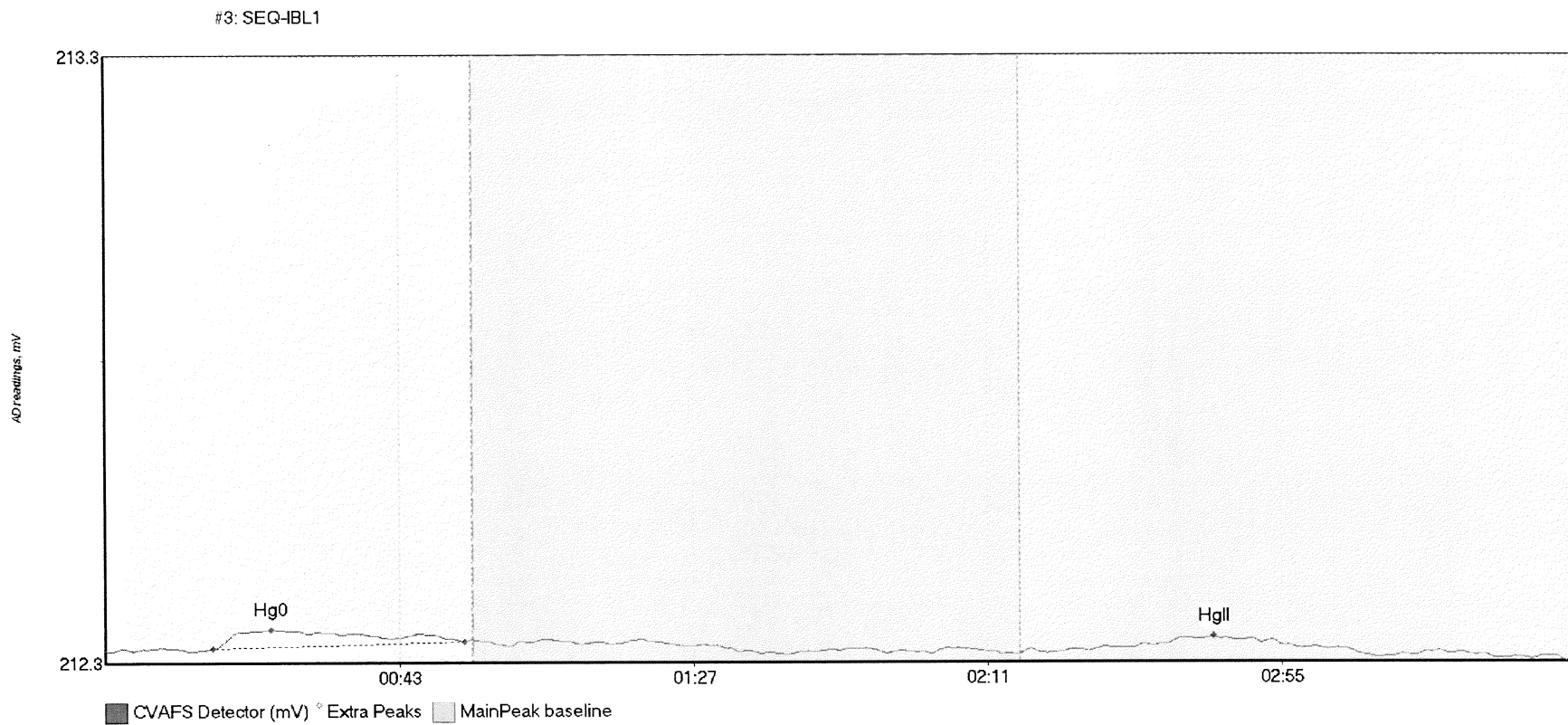


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean	5.814	153.9	214.7	212.46	212.53	211.3	0.074	OK	212.4944	0.00	-0.01	017

#2: WS

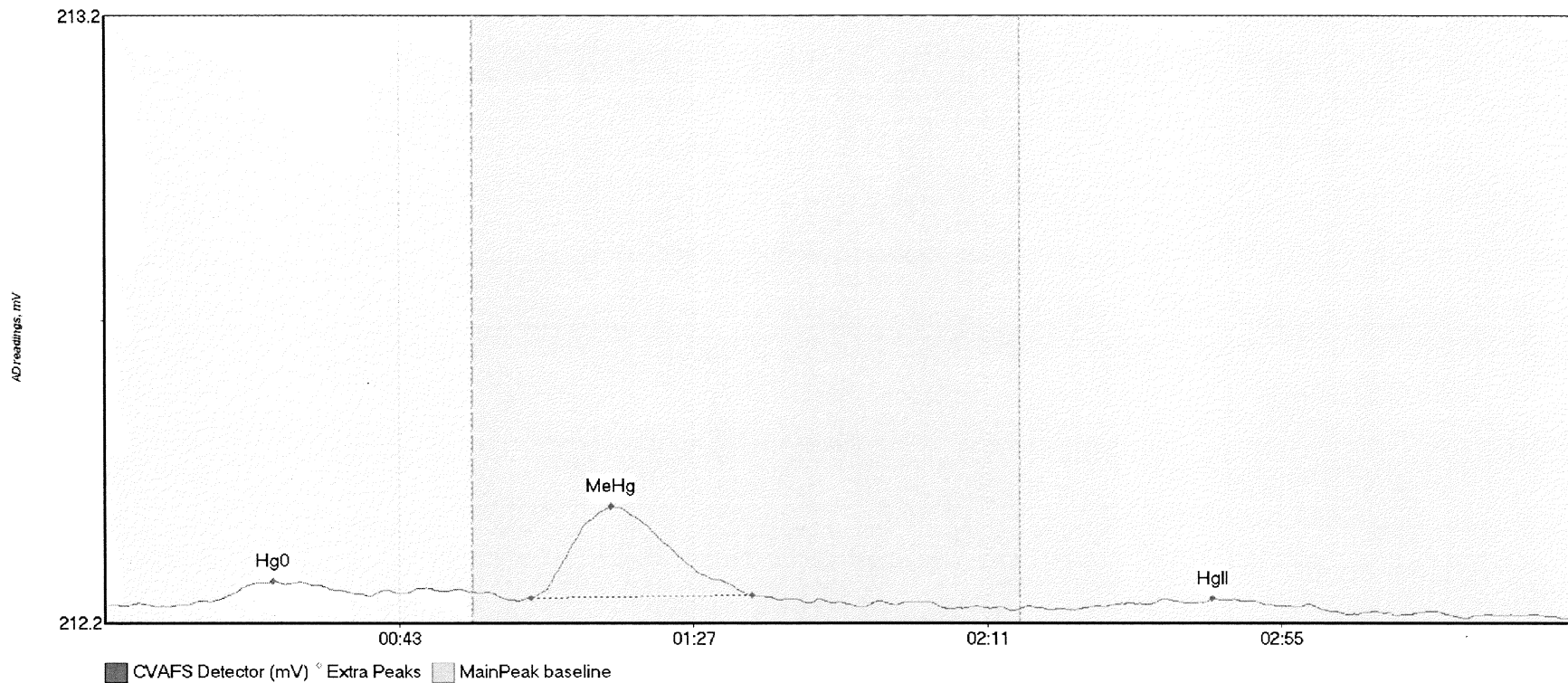


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	8.678	11.8	54.8	212.36	212.38	25.8	0.046	OK	212.3641	0.00	-0.01	
WS HgII	1.631	146.0	172.2	212.35	212.36	157.2	0.013	OK	212.3641	0.00	-0.01	017



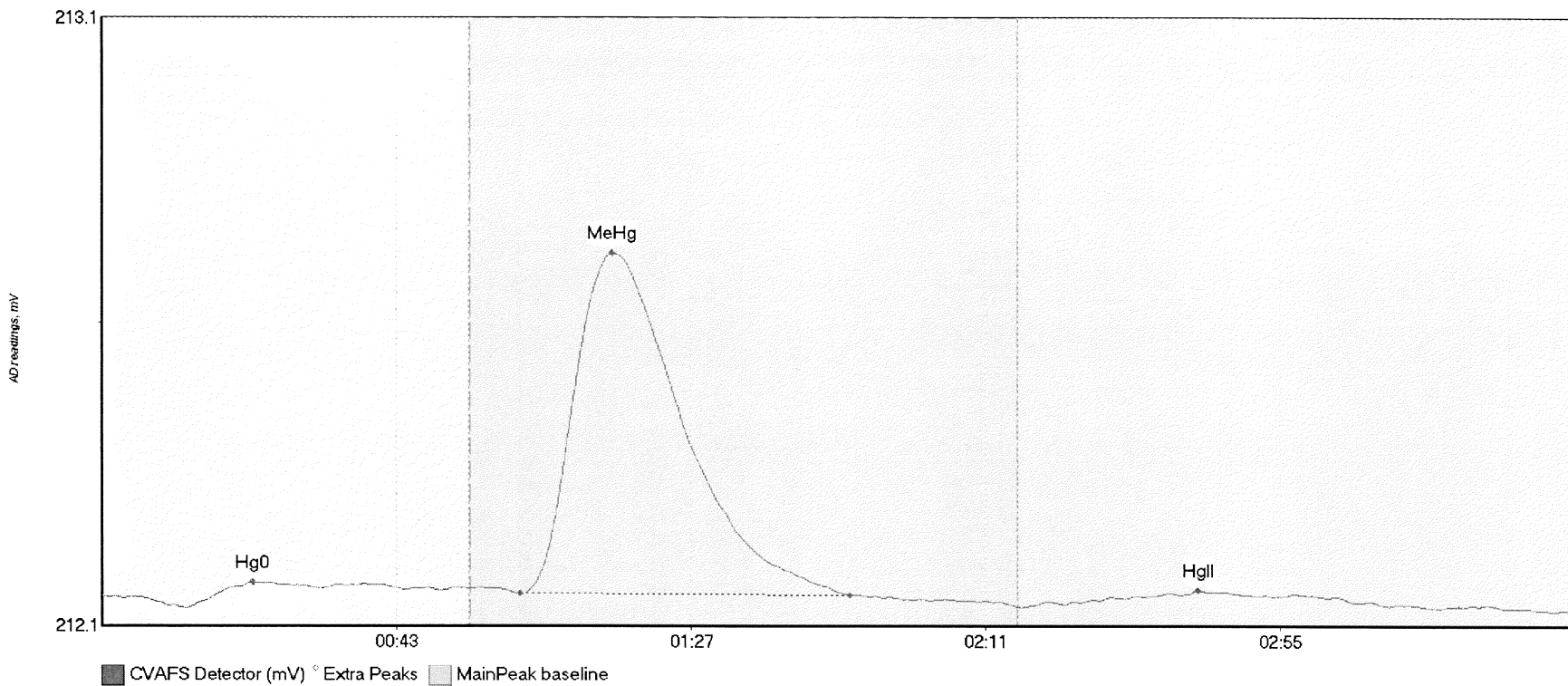
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	6.517	16.1	53.7	212.31	212.32	24.9	0.031	OK	212.3022	0.00	-0.02	
SEQ-IBL1 HgII	6.194	147.1	188.8	212.30	212.29	165.9	0.023	OK	212.3022	0.00	-0.02	317

#4: SEQ-CAL1



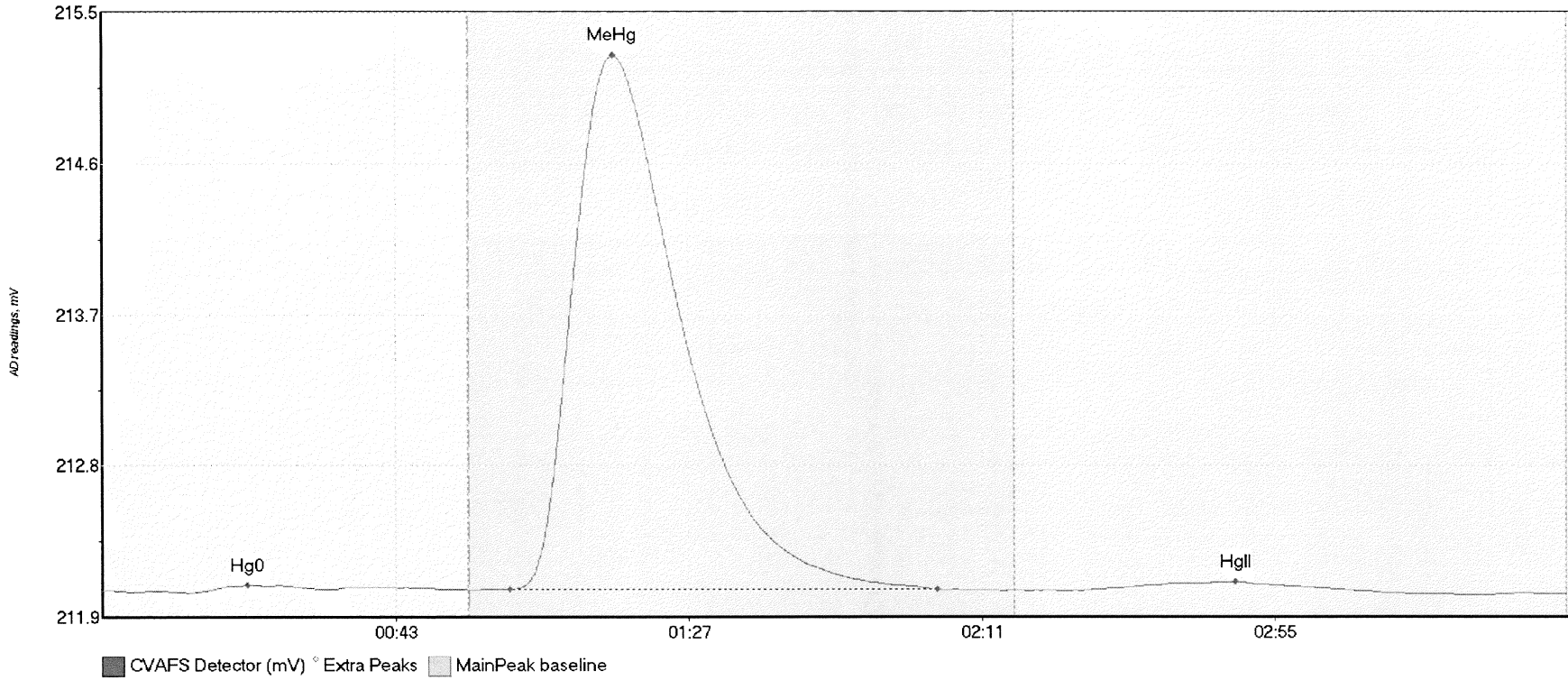
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	4.081	15.8	39.4	212.24	212.25	25.2	0.033	OK	212.2353	0.00	-0.02	
SEQ-CAL1 MeHg	24.270	63.7	96.8	212.25	212.25	75.7	0.150	OK	212.2353	0.00	-0.02	
SEQ-CAL1 HgII	1.772	149.5	175.2	212.23	212.23	165.8	0.013	OK	212.2353	0.00	-0.02	

#5: SEQ-CAL2



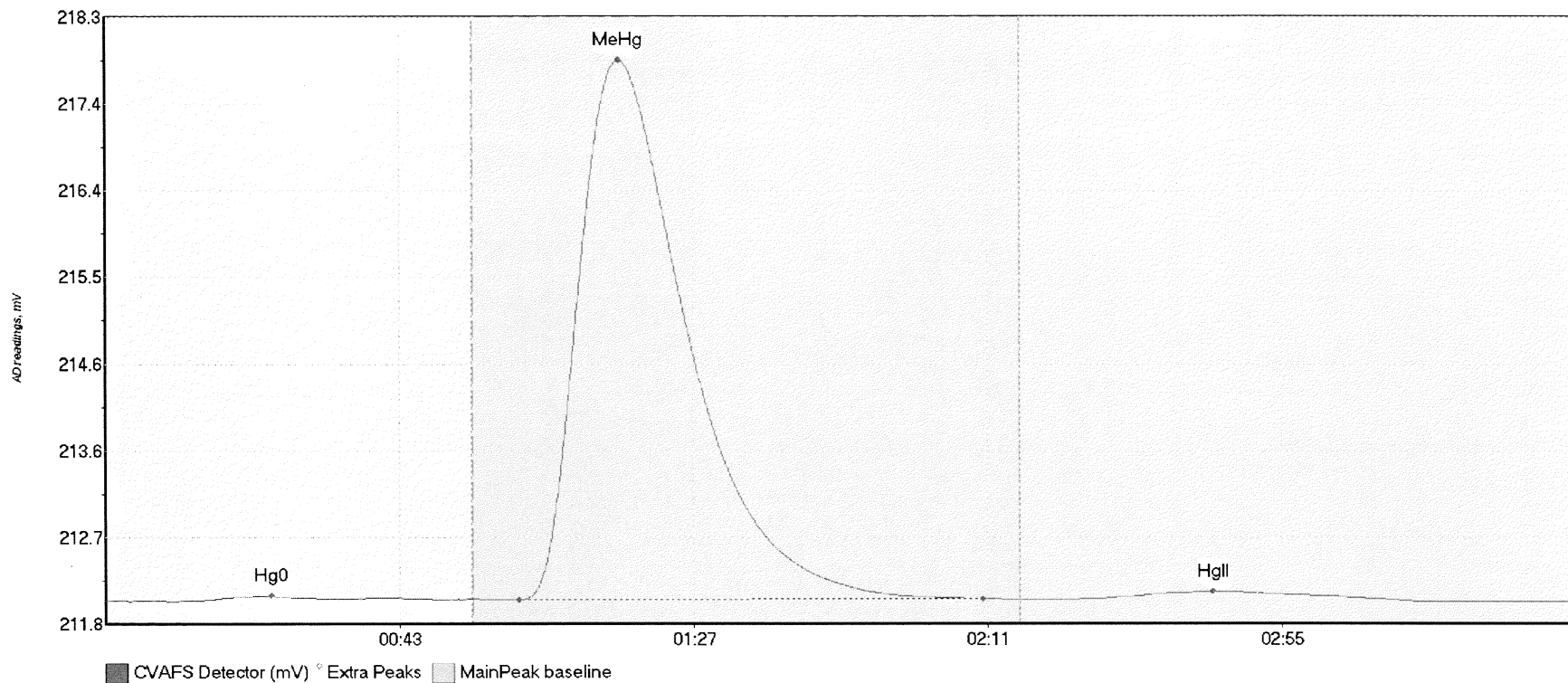
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	6.612	13.2	50.6	212.16	212.18	22.6	0.041	OK	212.1739	0.00	-0.02	
SEQ-CAL2 MeHg	104.651	62.5	111.8	212.18	212.18	76.3	0.562	OK	212.1739	0.00	-0.02	
SEQ-CAL2 HgII	6.720	143.7	192.3	212.16	212.16	163.7	0.024	OK	212.1739	0.00	-0.02	

#6: SEQ-CAL3



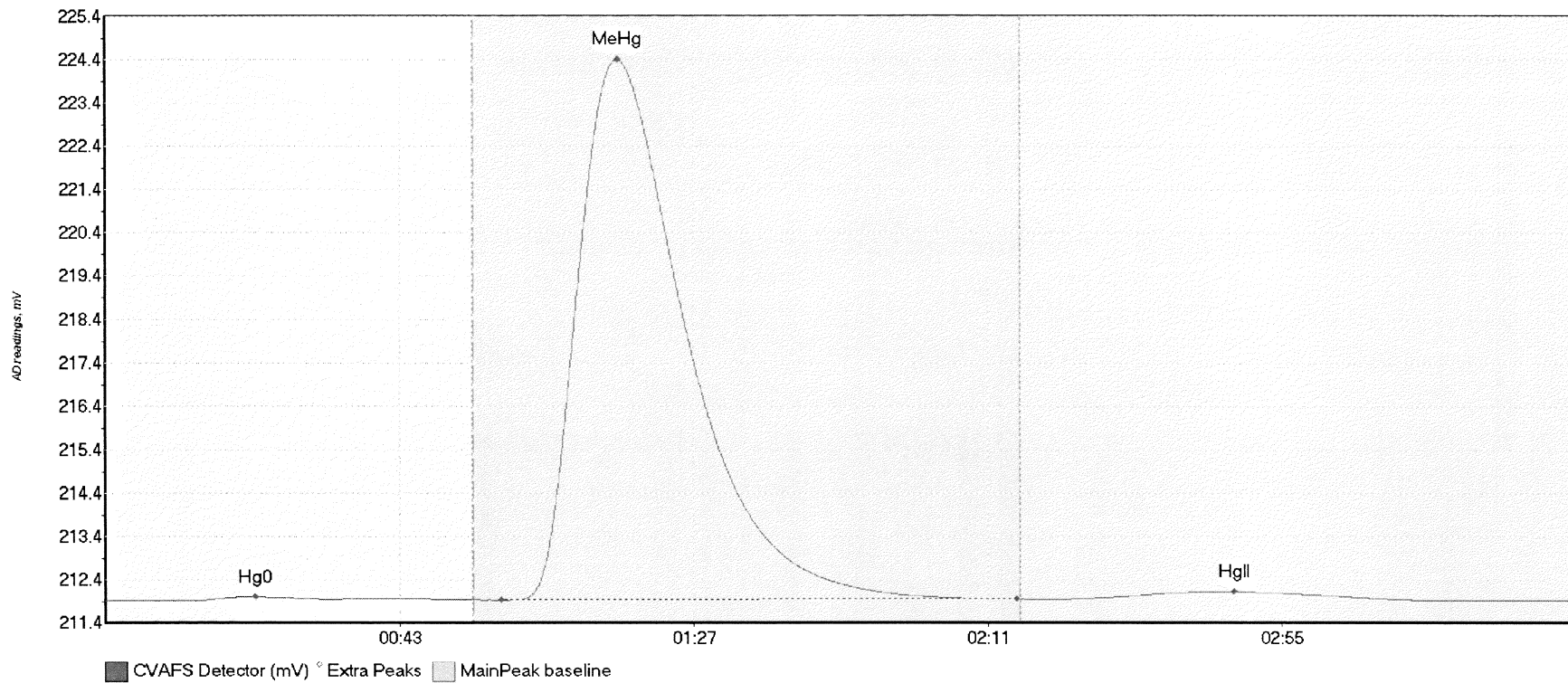
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	8.271	13.2	54.9	212.08	212.10	21.8	0.043	OK	212.0927	0.00	-0.02	
SEQ-CAL3 MeHg	591.990	61.2	125.3	212.10	212.10	76.8	3.145	OK	212.0927	0.00	-0.02	
SEQ-CAL3 HgII	10.624	149.7	189.0	212.10	212.09	170.2	0.043	OK	212.0927	0.00	-0.02	

#7: SEQ-CAL4



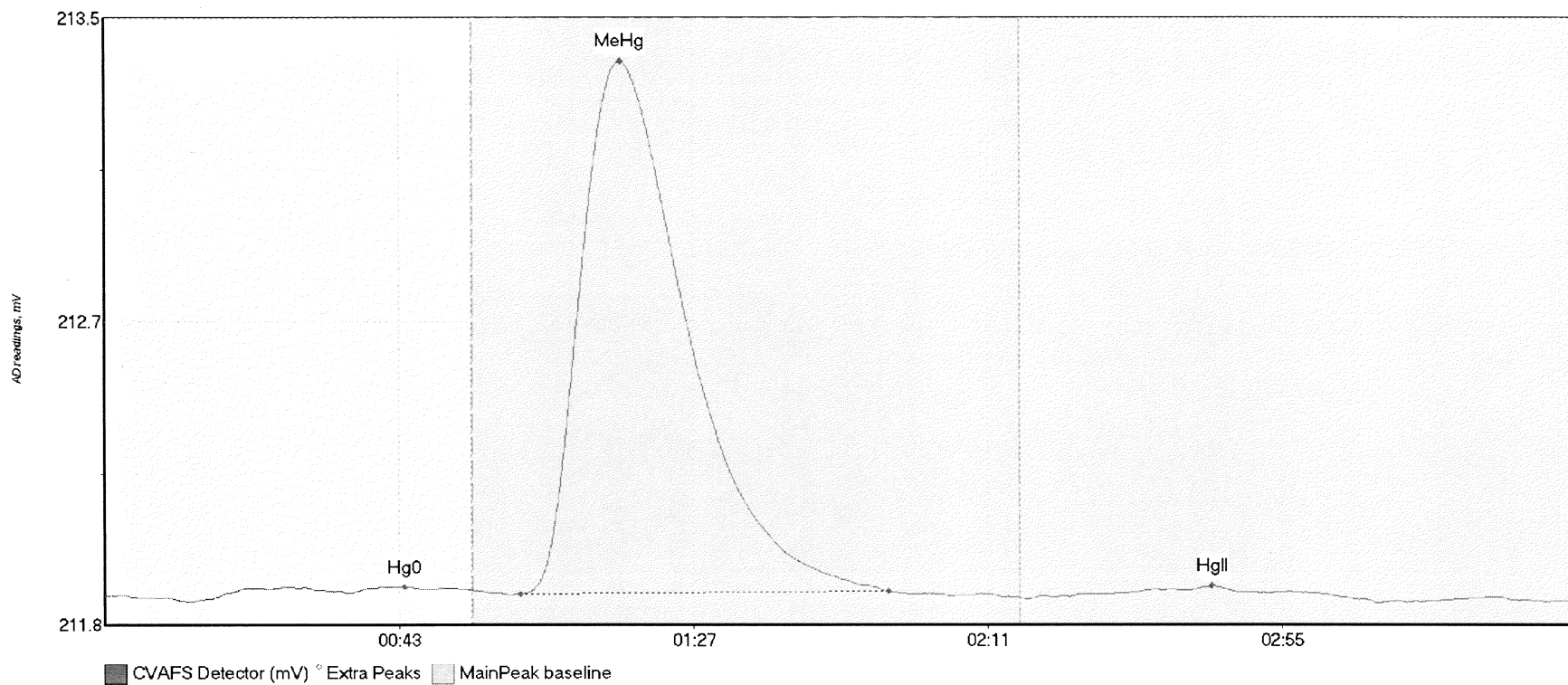
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	8.700	12.6	51.7	212.01	212.02	24.8	0.053	OK	212.0085	0.00	-0.01	
SEQ-CAL4 MeHg	1087.550	61.8	131.3	212.02	212.03	76.9	5.811	OK	212.0085	0.00	-0.01	
SEQ-CAL4 HgII	24.430	144.6	194.4	212.02	212.01	165.8	0.085	OK	212.0085	0.00	-0.01	

#8: SEQ-CAL5



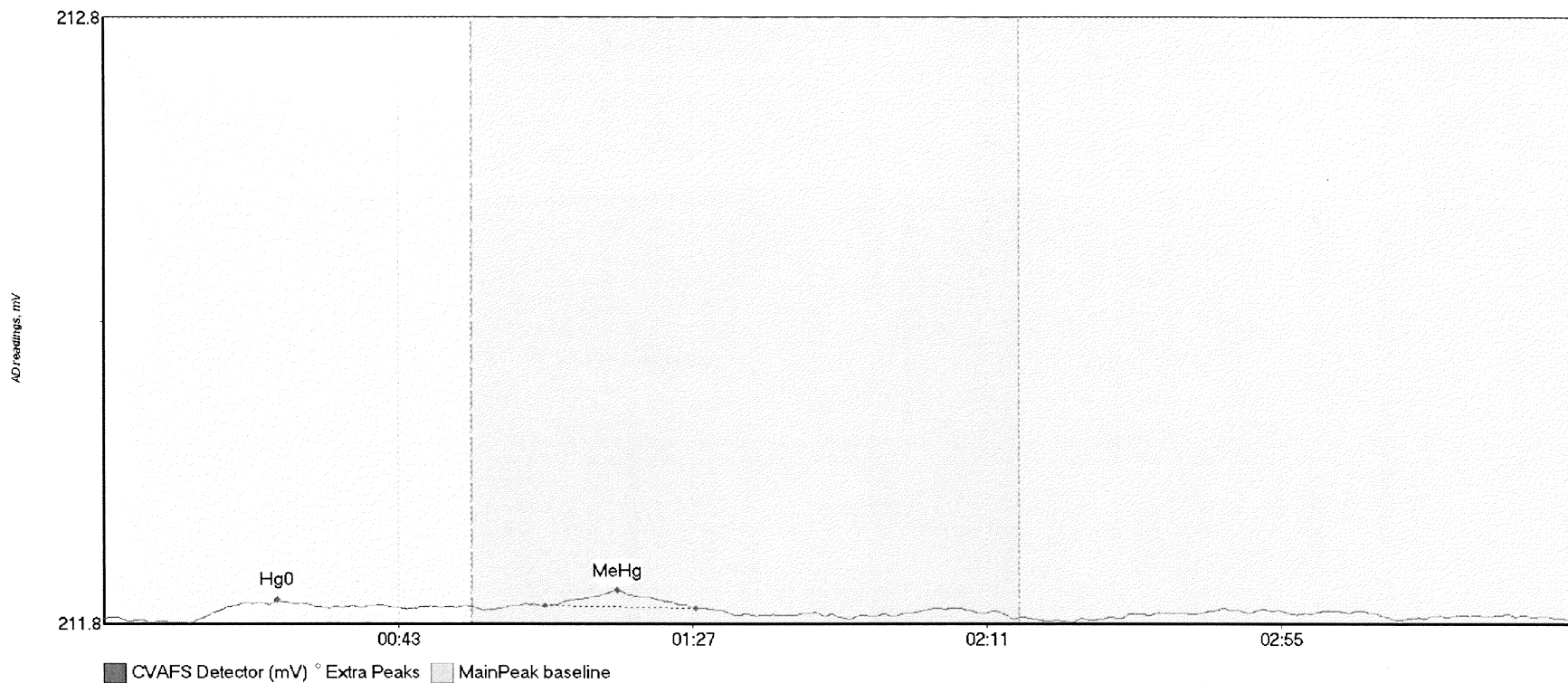
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	15.029	12.3	55.0	211.93	211.95	22.5	0.088	CT	211.9282	0.00	0.00	
SEQ-CAL5 MeHg	2333.648	59.1	136.3	211.94	211.97	76.7	12.428	OK	211.9282	0.00	0.00	
SEQ-CAL5 HgII	51.042	145.0	195.3	211.97	211.95	168.9	0.172	OK	211.9282	0.00	0.00	

#9: SEQ-ICV1



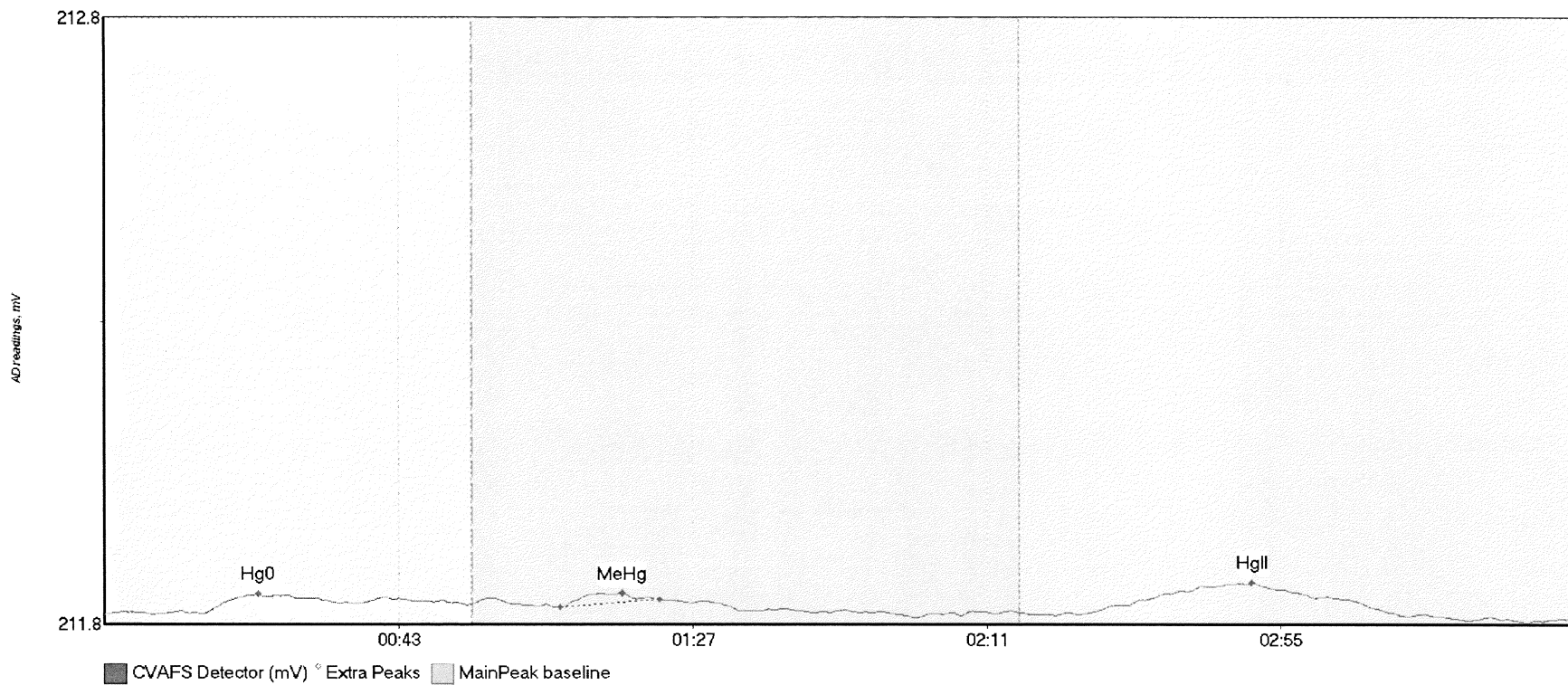
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	5.964	15.2	55.0	211.86	211.88	44.8	0.035	CT	211.8681	0.00	-0.01	
SEQ-ICV1 MeHg	280.112	62.1	117.2	211.87	211.88	77.1	1.522	OK	211.8681	0.00	-0.01	
SEQ-ICV1 HgII	5.669	144.3	184.9	211.87	211.87	165.6	0.028	OK	211.8681	0.00	-0.01	

#10: SEQ-ICB1



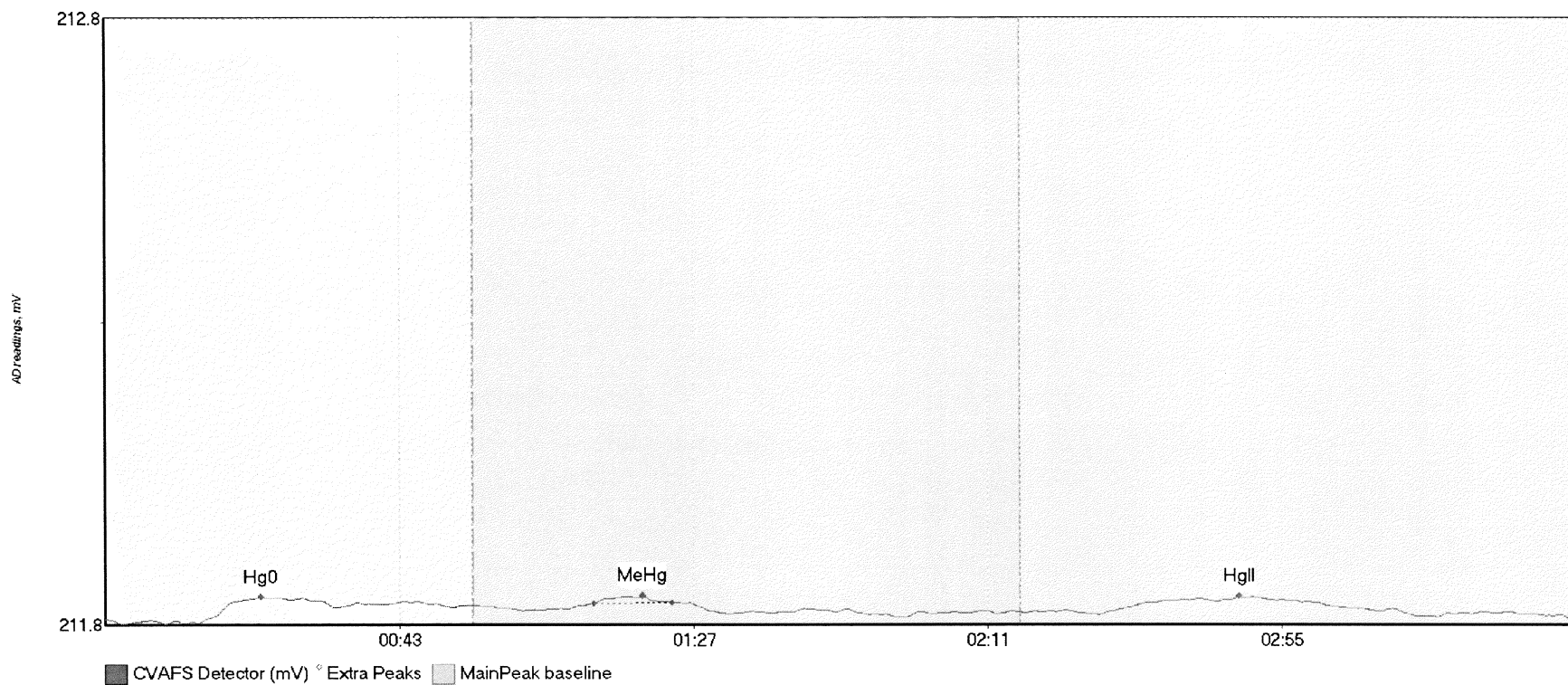
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	4.809	12.7	45.3	211.82	211.84	25.8	0.036	OK	211.8252	0.00	0.00	
SEQ-ICB1 MeHg	3.130	65.9	88.5	211.84	211.84	76.8	0.026	OK	211.8252	0.00	0.00	017

#11: F710411-BLK1



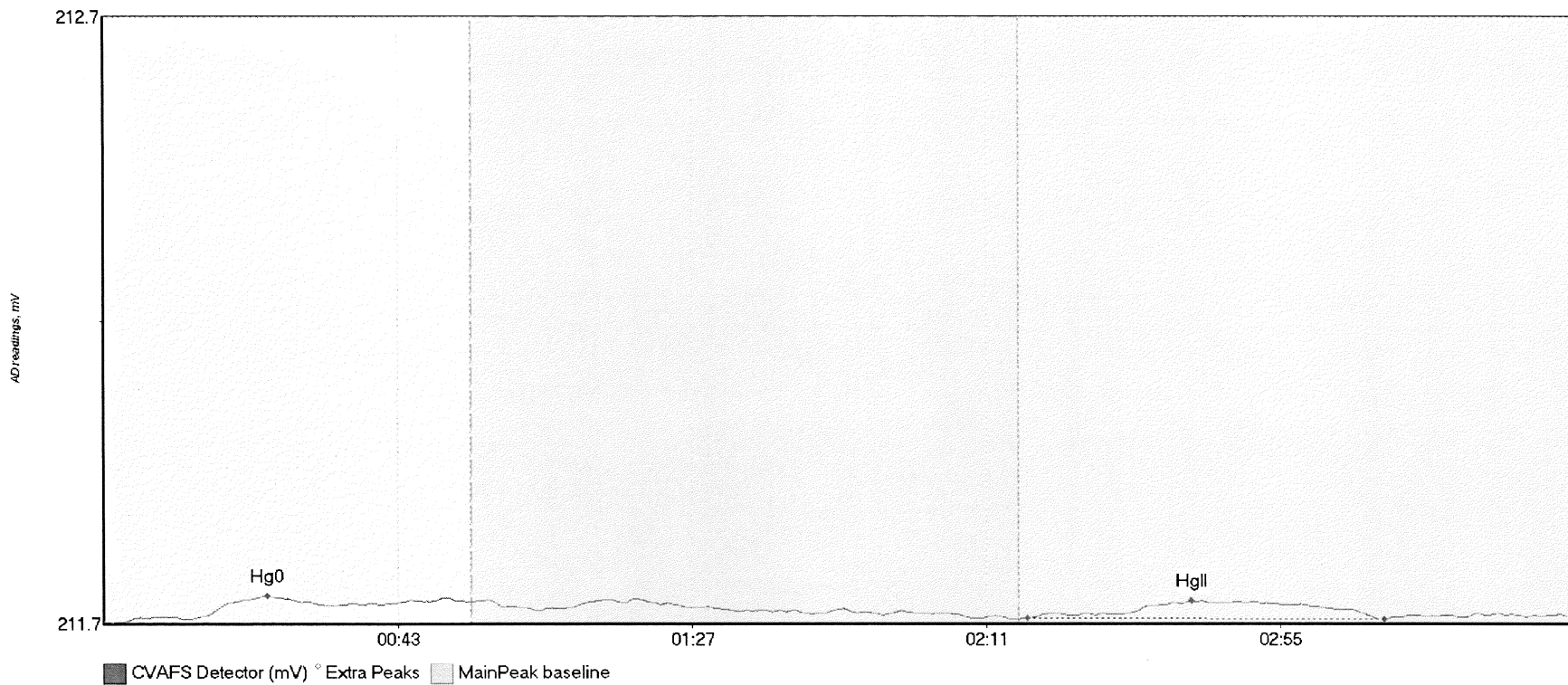
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-BLK1 Hg	5.881	14.7	54.2	211.79	211.81	23.0	0.031	OK	211.7899	0.00	-0.01	
F710411-BLK1 Me	1.525	68.1	83.0	211.80	211.81	77.4	0.023	OK	211.7899	0.00	-0.01	
F710411-BLK1 Hg	12.572	147.5	192.4	211.79	211.79	171.8	0.049	OK	211.7899	0.00	-0.01	

#12: F710411-BLK2



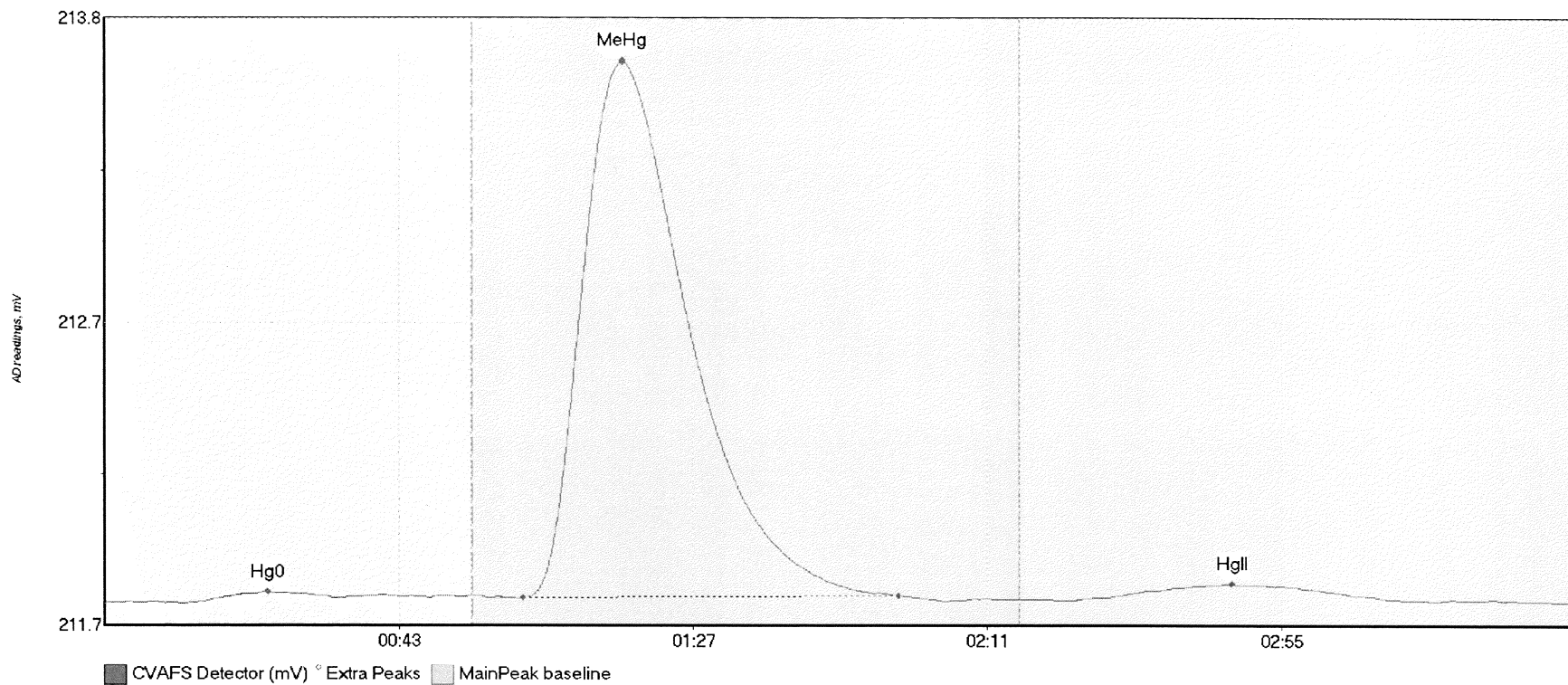
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-BLK2 Hg	4.031	14.0	34.3	211.75	211.78	23.3	0.043	OK	211.7602	0.00	0.00	
F710411-BLK2 Me	0.780	73.0	84.8	211.79	211.79	80.3	0.012	OK	211.7602	0.00	0.00	
F710411-BLK2 Hg	5.583	151.0	190.6	211.77	211.77	169.6	0.023	OK	211.7602	0.00	0.00	

#13: F710411-BLK3



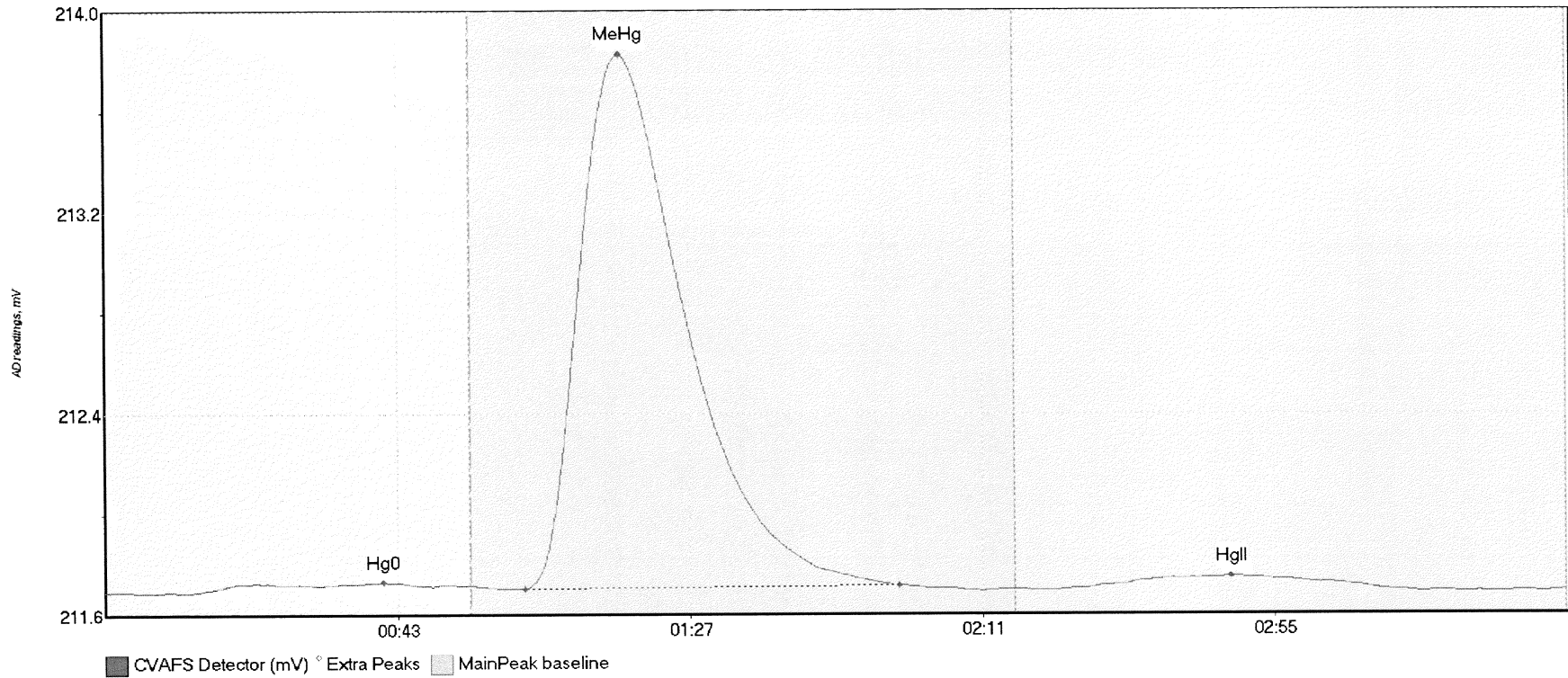
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-BLK3 Hg	3.026	13.0	34.2	211.75	211.77	24.4	0.038	OK	211.7433	0.00	0.01	017
F710411-BLK3 Hg	9.328	138.2	191.6	211.75	211.75	162.8	0.029	OK	211.7433	0.00	0.01	

#14: F710411-BS1



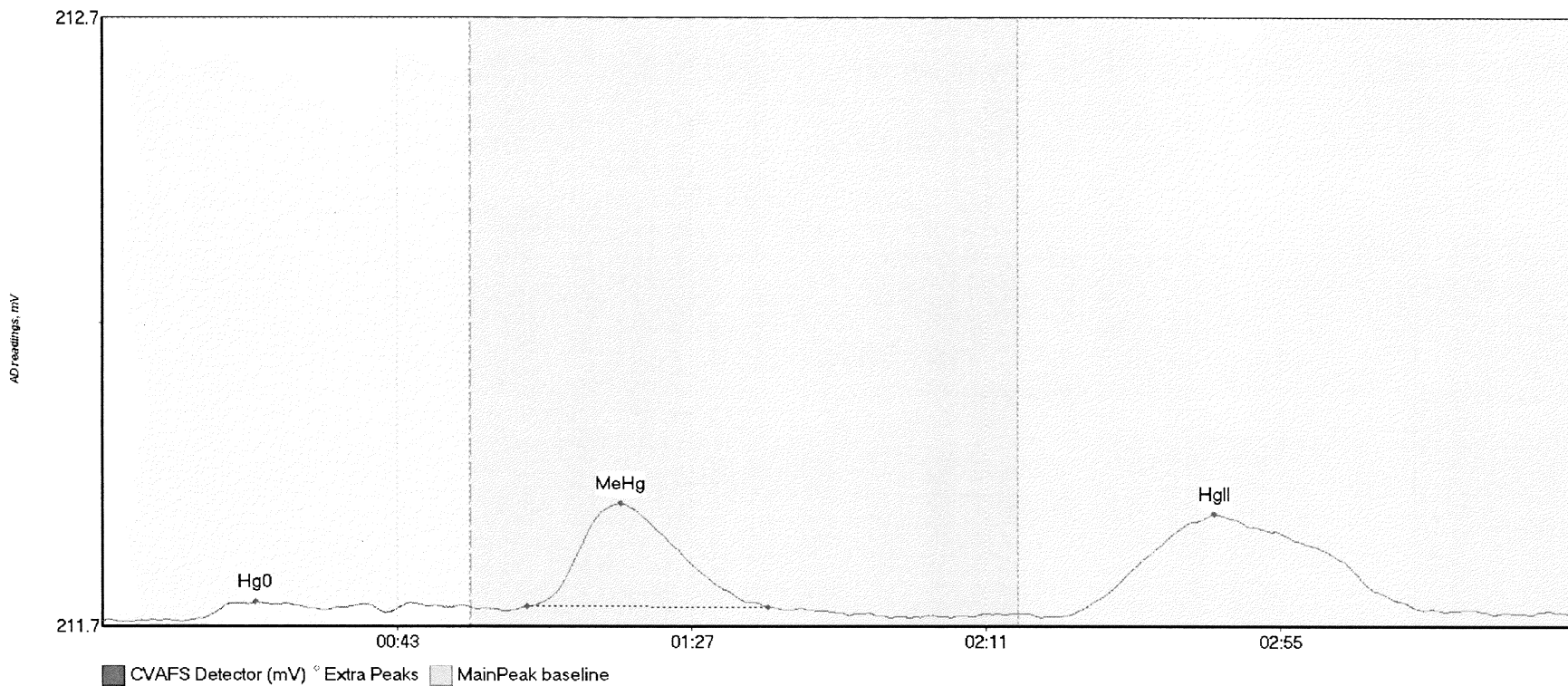
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-BS1 Hg0	3.424	14.6	34.6	211.74	211.76	24.4	0.035	OK	211.7377	0.00	0.00	
F710411-BS1 MeH	355.872	62.6	118.8	211.75	211.76	77.5	1.932	OK	211.7377	0.00	0.00	
F710411-BS1 HgI	12.735	147.9	191.2	211.76	211.75	168.6	0.049	OK	211.7377	0.00	0.00	

#15: F710411-BSD1



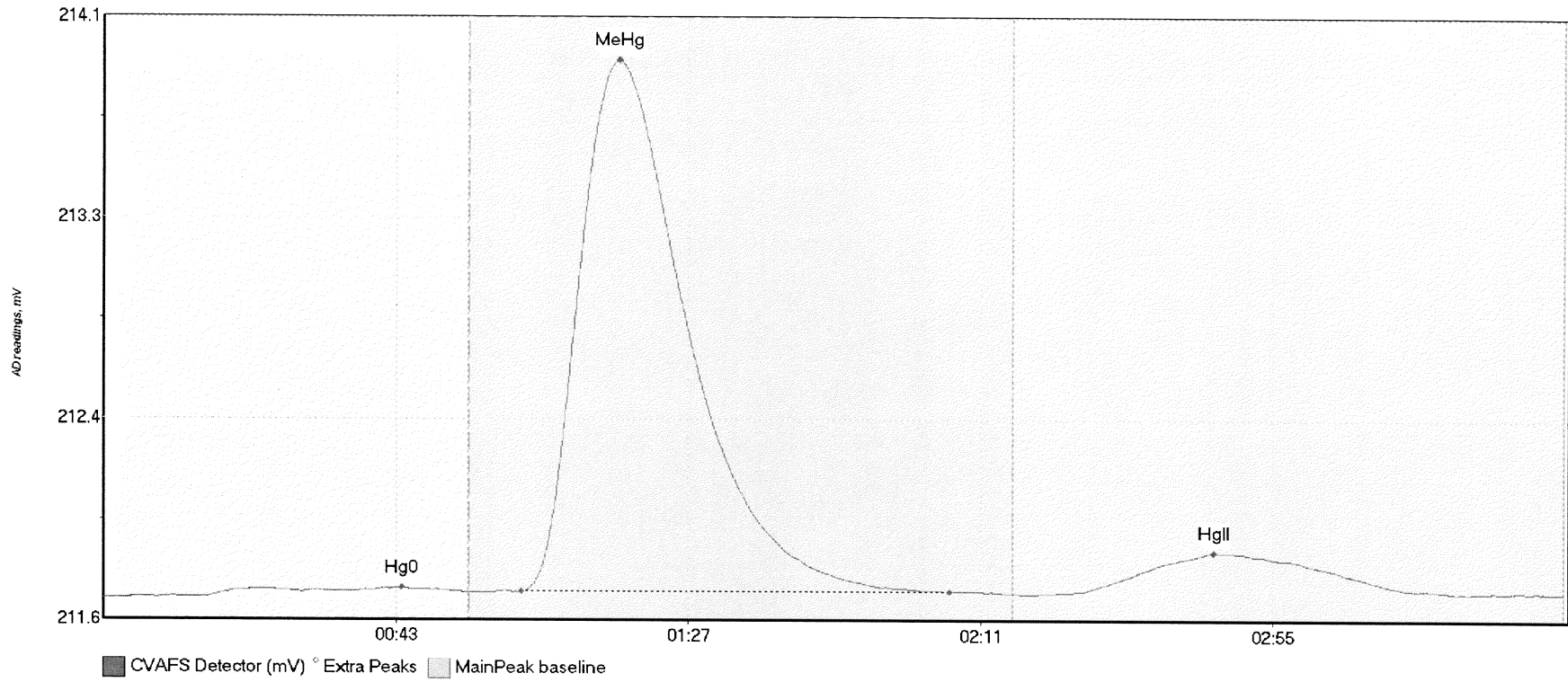
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-BSD1 Hg	6.263	12.8	49.1	211.72	211.75	41.9	0.040	OK	211.7265	0.00	0.00	
F710411-BSD1 Me	391.933	63.1	119.4	211.74	211.75	77.6	2.128	OK	211.7265	0.00	0.00	
F710411-BSD1 Hg	13.814	147.5	193.4	211.74	211.73	169.4	0.046	OK	211.7265	0.00	0.00	

#16: F710411-DUP1



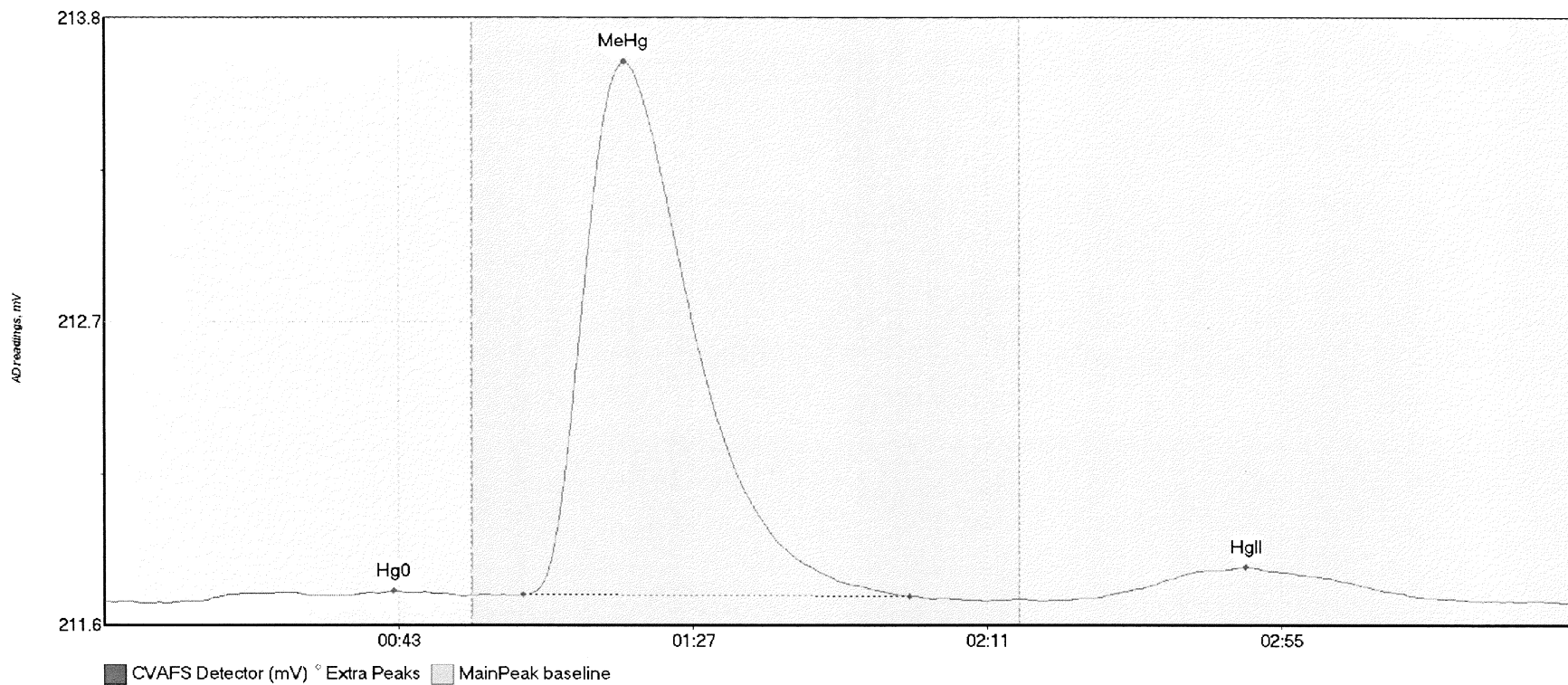
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-DUP1 Hg	3.987	14.8	42.3	211.71	211.72	22.9	0.026	OK	211.7084	0.00	0.01	
F710411-DUP1 Me	27.778	63.5	99.5	211.73	211.73	77.5	0.170	OK	211.7084	0.00	0.01	
F710411-DUP1 Hg	47.610	144.2	200.5	211.72	211.72	166.2	0.167	OK	211.7084	0.00	0.01	

#17: F710411-MS1



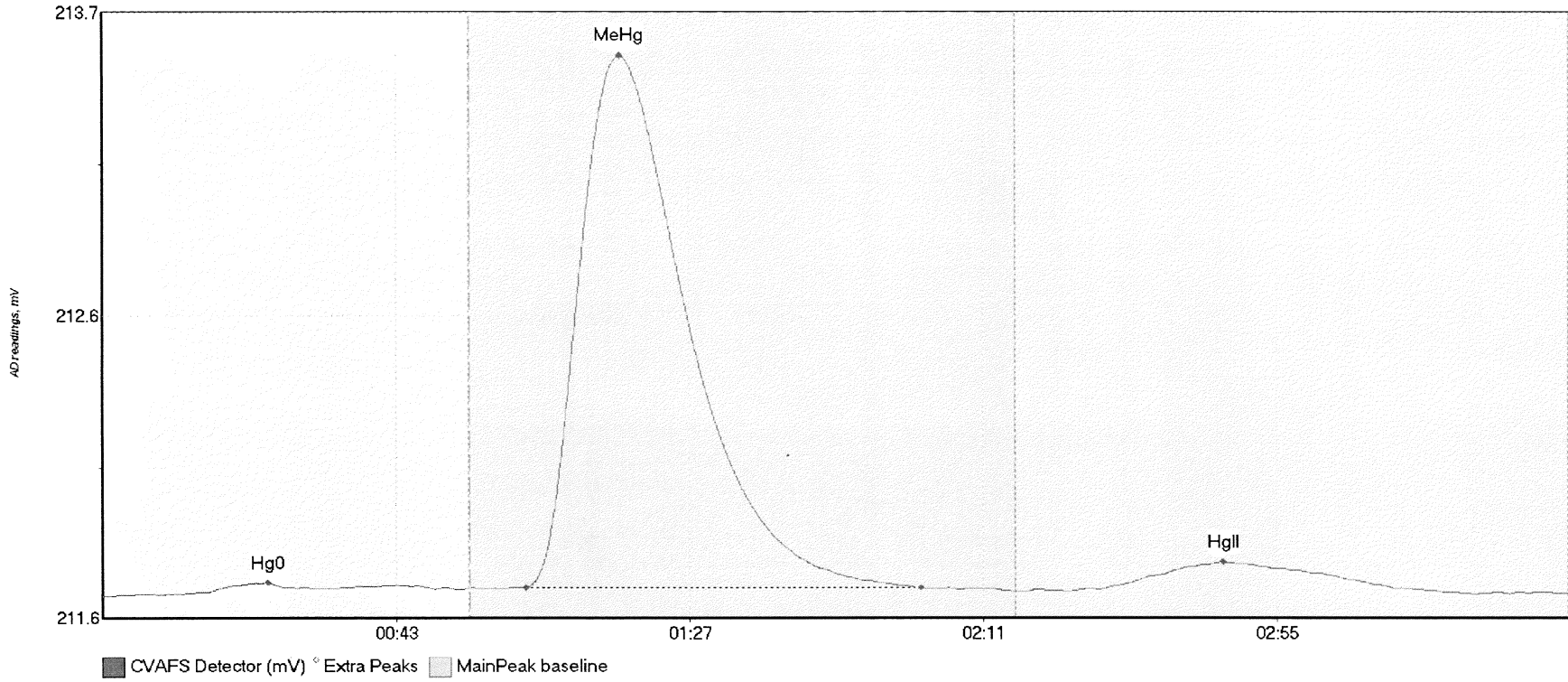
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-MS1 Hg0	6.856	14.4	54.8	211.71	211.73	44.8	0.036	OK	211.7076	0.00	0.02	
F710411-MS1 MeH	408.252	62.9	127.3	211.74	211.74	77.6	2.165	OK	211.7076	0.00	0.02	
F710411-MS1 HgI	48.787	145.1	203.7	211.73	211.73	167.2	0.165	OK	211.7076	0.00	0.02	

#18: F710411-MSD1



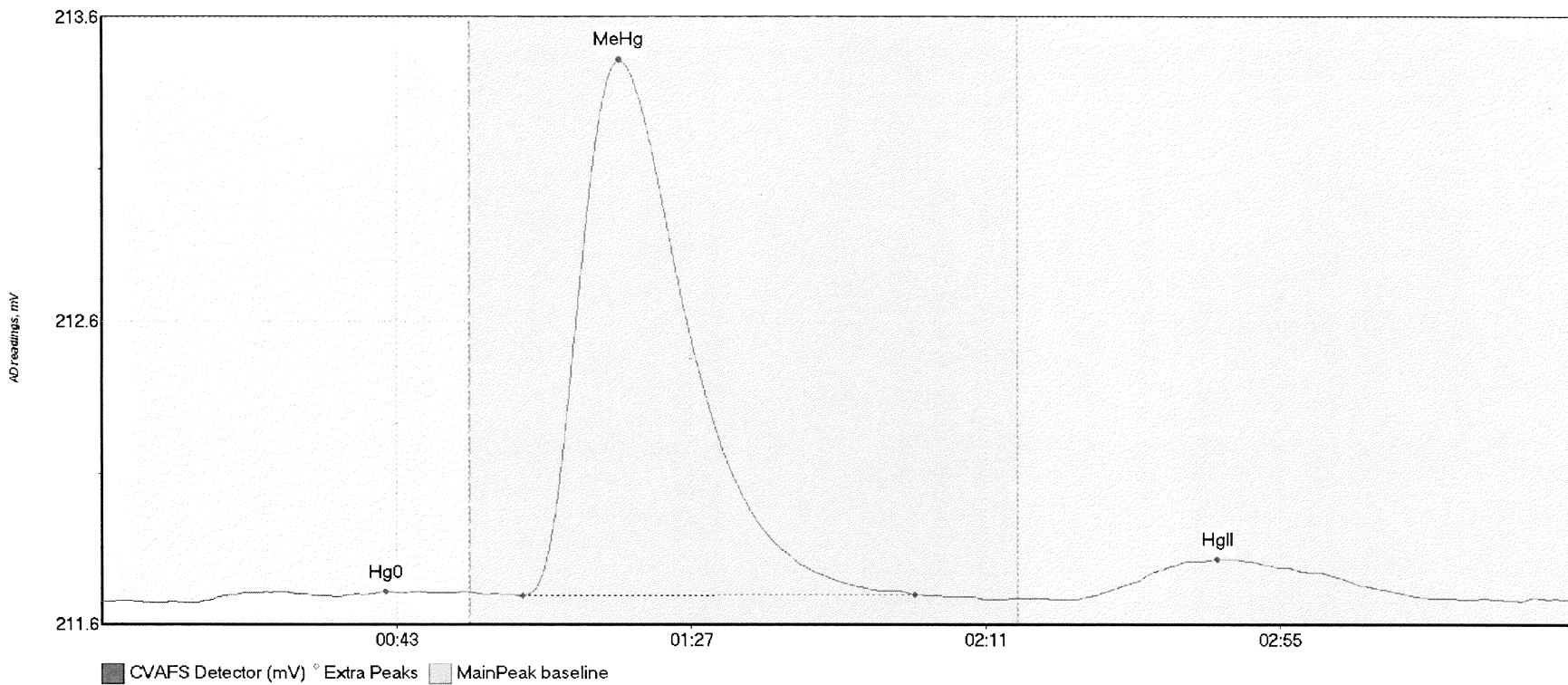
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-MSD1 Hg	6.339	14.4	53.8	211.71	211.73	43.3	0.035	OK	211.7133	0.00	-0.01	
F710411-MSD1 Me	358.458	62.6	120.5	211.74	211.73	77.8	1.905	OK	211.7133	0.00	-0.01	
F710411-MSD1 Hg	30.181	147.5	197.9	211.72	211.73	170.7	0.110	OK	211.7133	0.00	-0.01	

#19: F710411-MS2



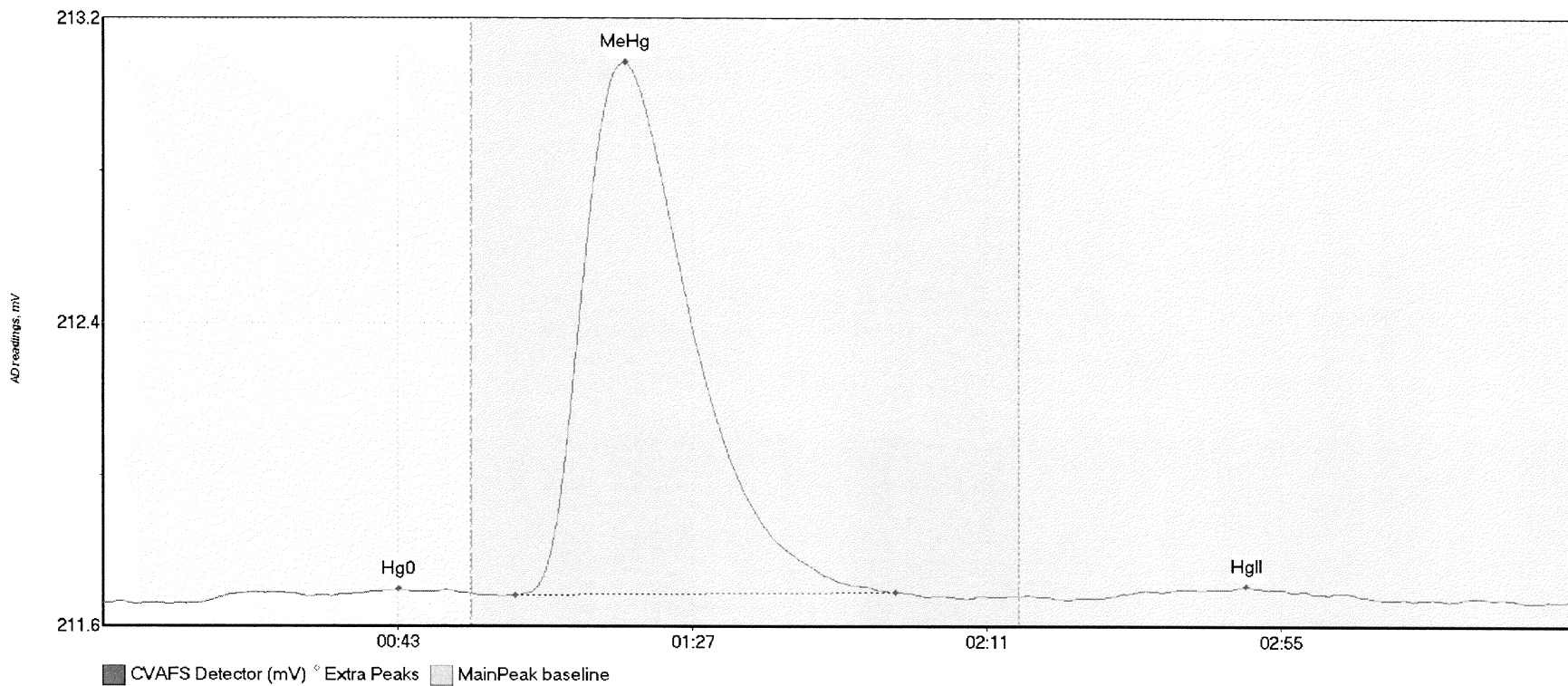
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-MS2 Hg0	6.750	8.8	53.4	211.70	211.72	24.8	0.042	OK	211.6993	0.00	0.01	
F710411-MS2 MeH	336.742	63.4	122.7	211.73	211.73	77.6	1.786	OK	211.6993	0.00	0.01	
F710411-MS2 HgI	25.575	145.4	198.8	211.72	211.72	168.0	0.097	OK	211.6993	0.00	0.01	

#20: F710411-MSD2



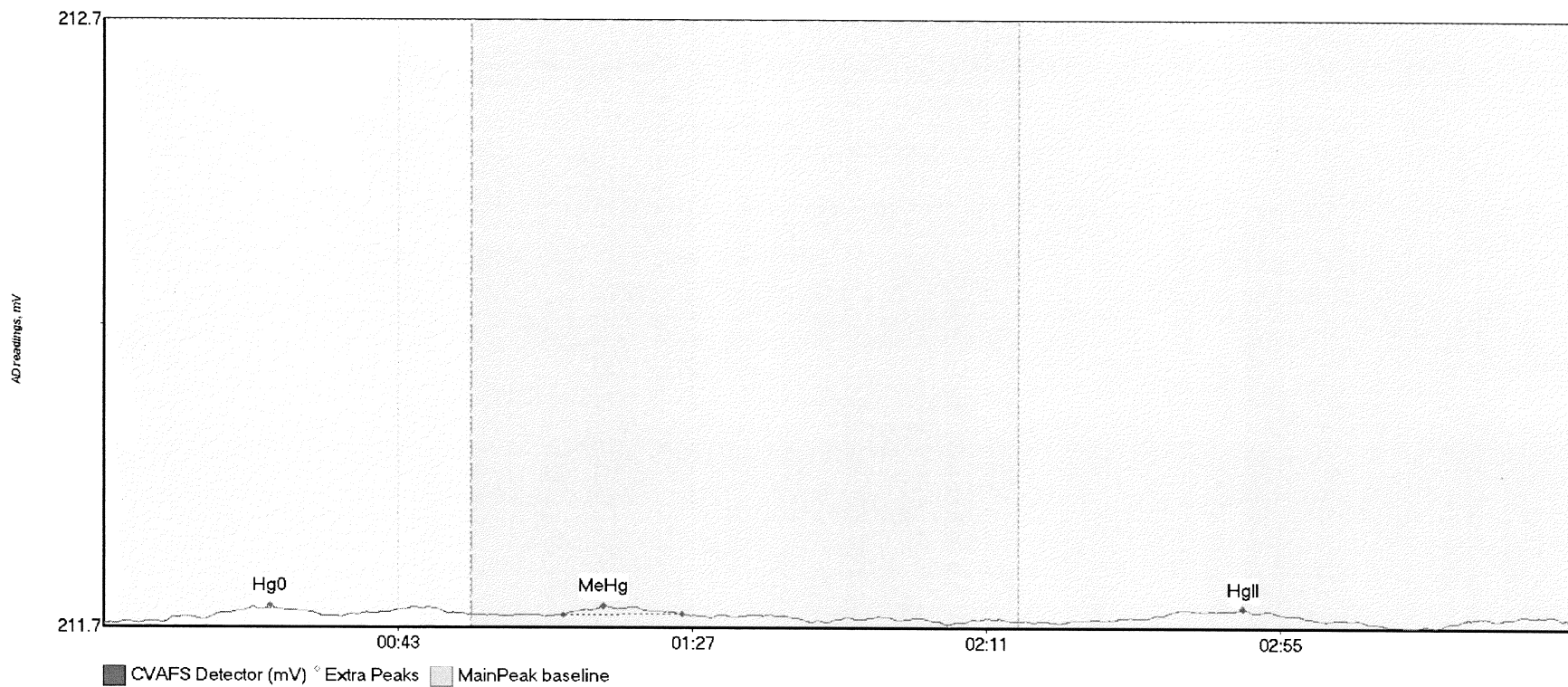
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-MSD2 Hg	4.842	13.9	52.4	211.69	211.73	42.5	0.037	OK	211.6986	0.00	0.01	
F710411-MSD2 Me	326.118	62.8	121.5	211.72	211.72	77.3	1.743	OK	211.6986	0.00	0.01	
F710411-MSD2 Hg	37.134	145.4	197.0	211.70	211.71	166.7	0.133	OK	211.6986	0.00	0.01	

#21: SEQ-CCV1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	5.156	14.0	55.0	211.69	211.72	44.1	0.035	CT	211.6934	0.00	0.00	
SEQ-CCV1 MeHg	254.906	61.6	118.4	211.71	211.72	78.0	1.359	OK	211.6934	0.00	0.00	
SEQ-CCV1 HgII	4.398	149.2	181.2	211.71	211.71	170.9	0.030	OK	211.6934	0.00	0.00	

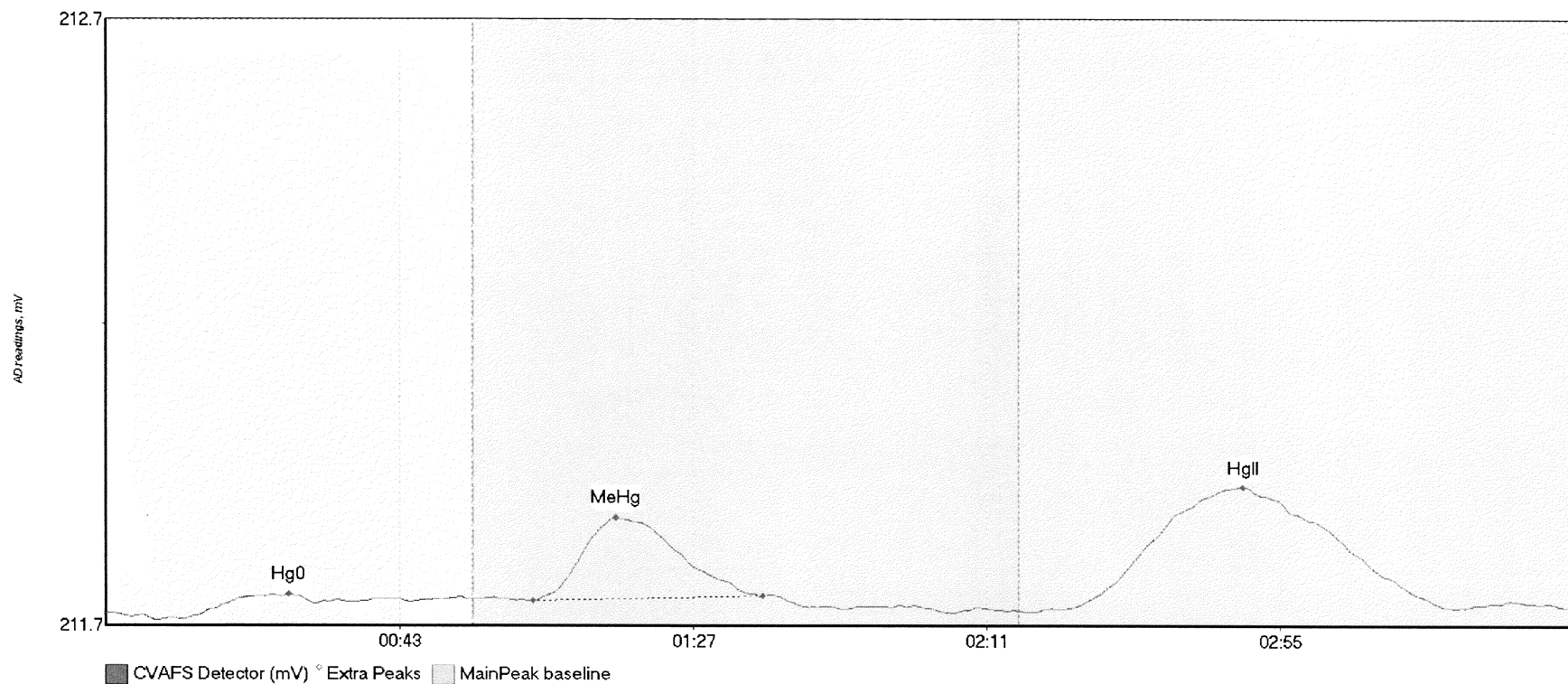
#22: SEQ-CCB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	2.615	8.7	35.6	211.69	211.70	24.9	0.025	OK	211.6851	0.00	0.01	
SEQ-CCB1 MeHg	1.381	68.7	86.4	211.70	211.70	74.8	0.014	OK	211.6851	0.00	0.01	
SEQ-CCB1 HgII	2.384	156.2	180.1	211.69	211.69	170.5	0.016	OK	211.6851	0.00	0.01	

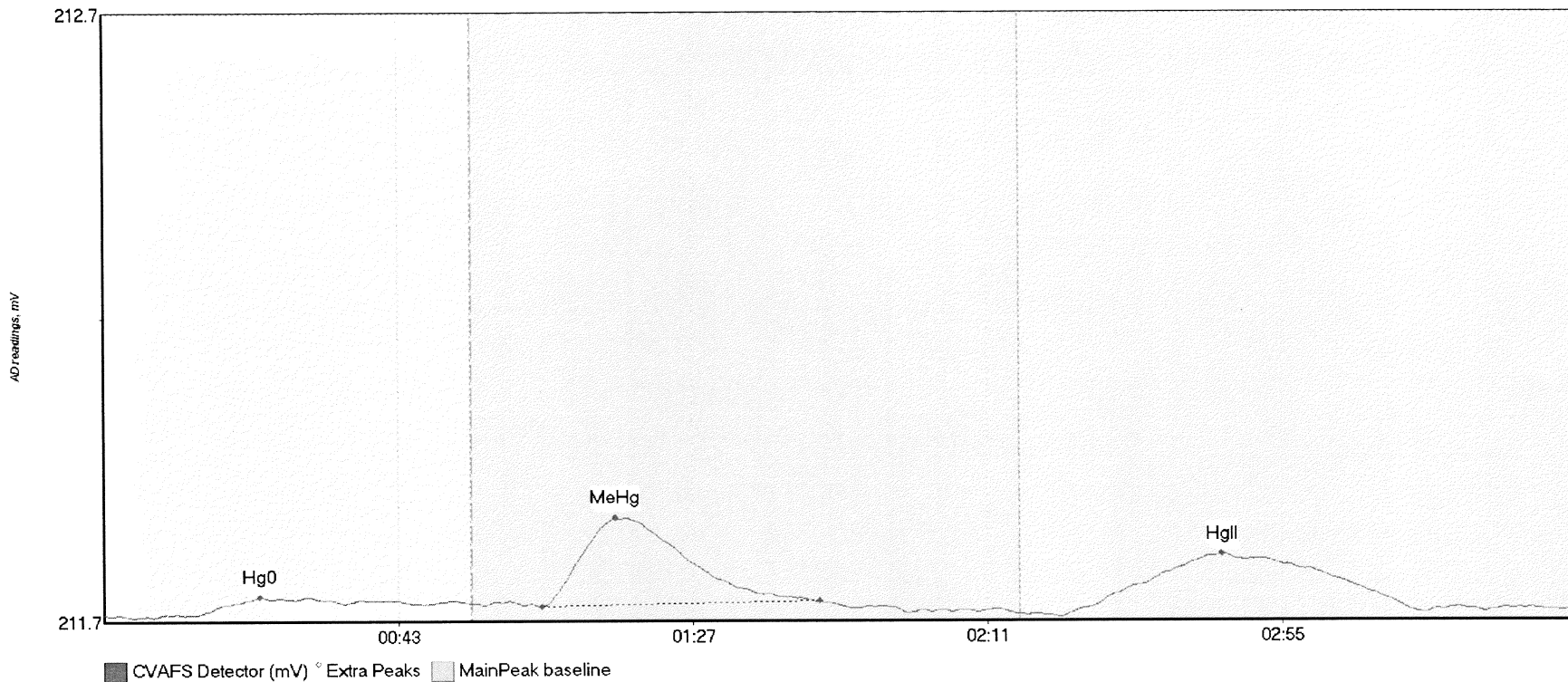
017

#23: 1710143-01



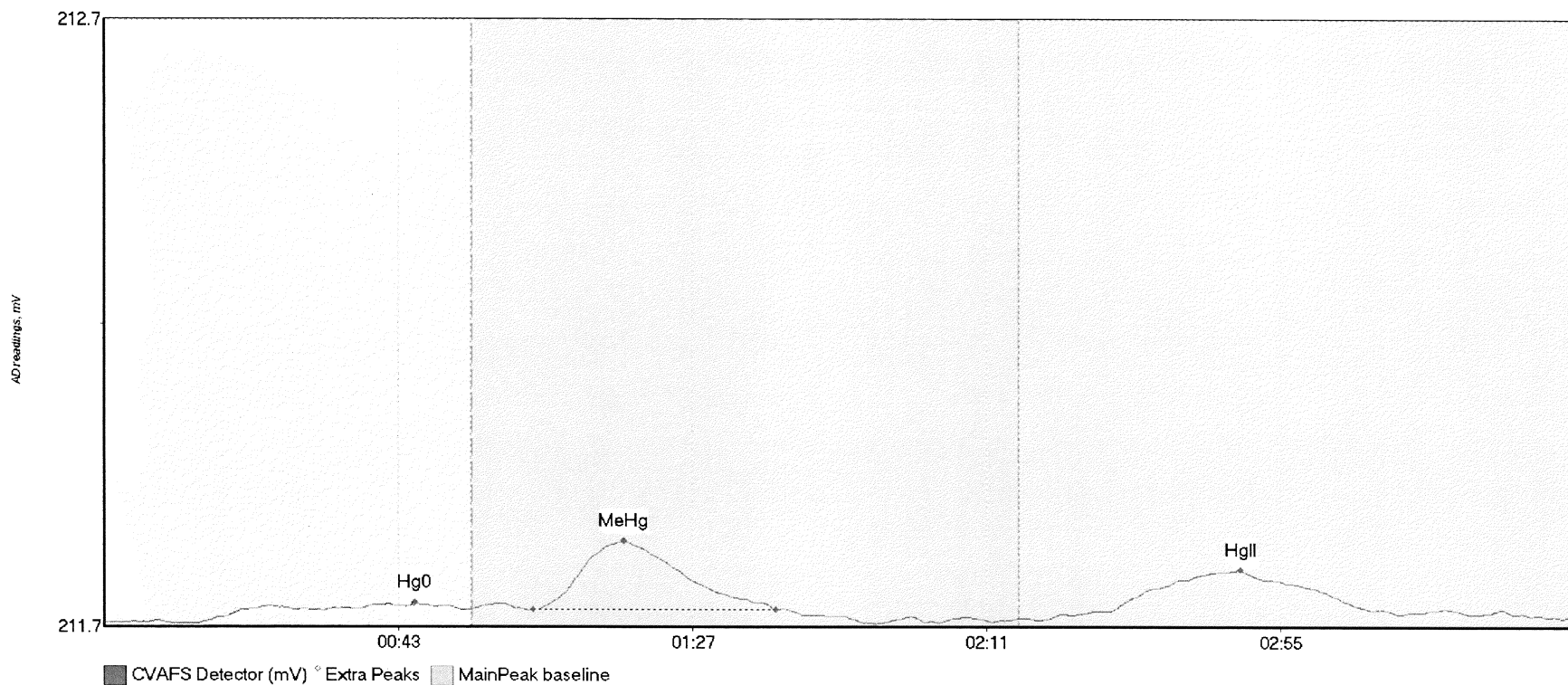
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710143-01 Hg0	2.708	14.0	31.5	211.69	211.70	27.4	0.034	OK	211.6890	0.00	0.01	
1710143-01 MeHg	22.119	64.0	98.4	211.71	211.72	76.4	0.137	OK	211.6890	0.00	0.01	
1710143-01 HgII	60.279	143.5	202.4	211.70	211.70	170.5	0.202	OK	211.6890	0.00	0.01	

#24: 1710143-02



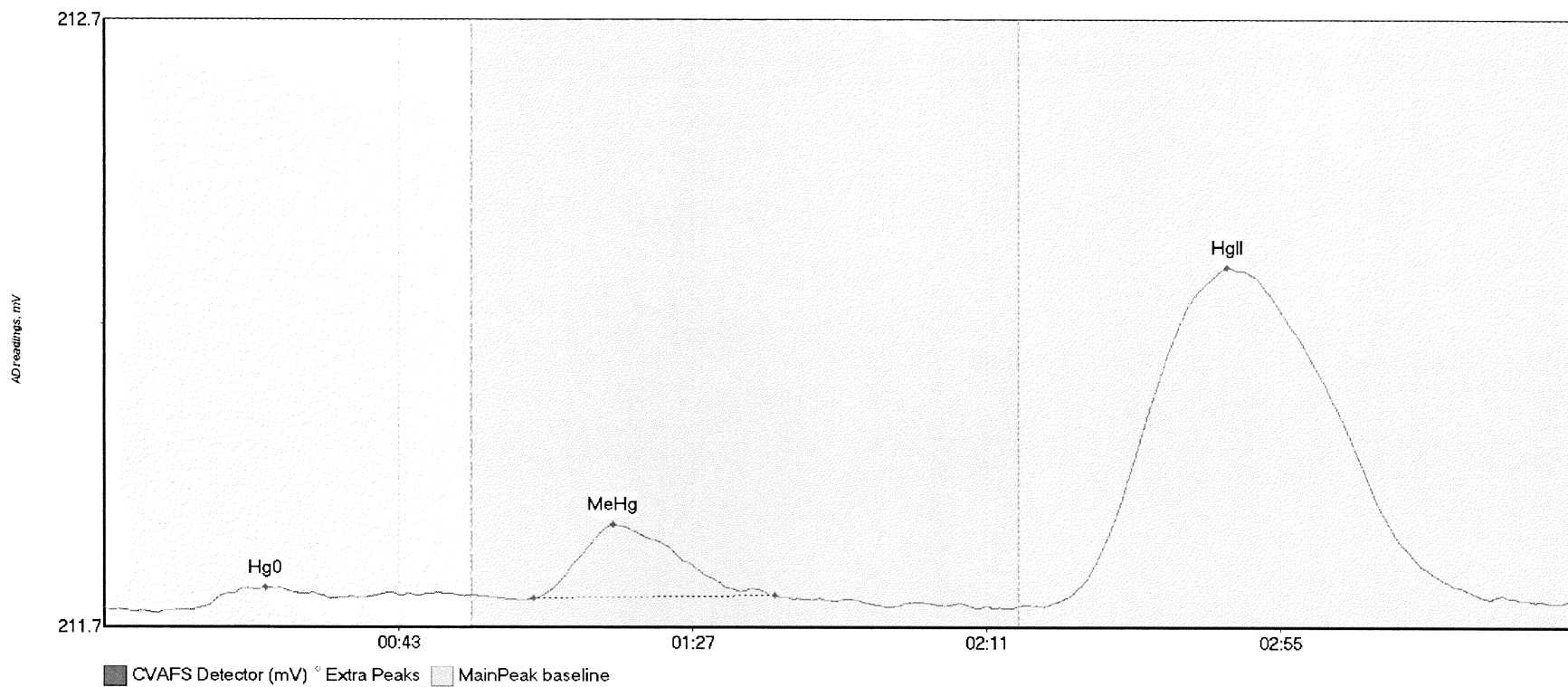
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710143-02 Hg0	3.705	15.3	47.9	211.70	211.71	23.3	0.024	OK	211.6909	0.00	0.01	
1710143-02 MeHg	25.695	65.4	106.9	211.70	211.71	76.5	0.146	OK	211.6909	0.00	0.01	
1710143-02 HgII	30.263	143.1	197.0	211.69	211.69	167.1	0.103	OK	211.6909	0.00	0.01	

#25: 1710143-03



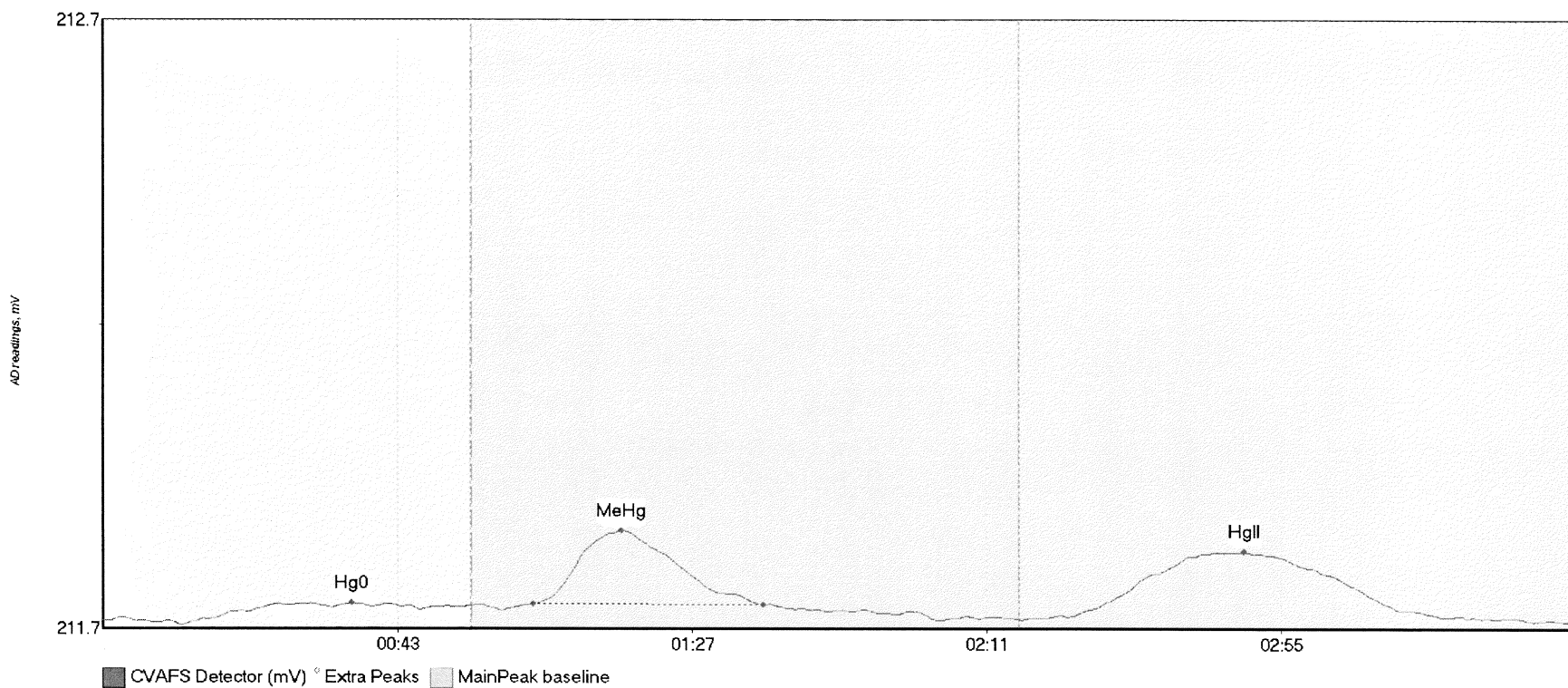
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710143-03 Hg0	4.737	14.9	54.3	211.70	211.72	46.4	0.029	OK	211.6972	0.00	0.01	
1710143-03 MeHg	19.274	64.1	100.5	211.72	211.72	77.7	0.114	OK	211.6972	0.00	0.01	
1710143-03 HgII	20.329	144.9	213.5	211.71	211.71	170.1	0.075	OK	211.6972	0.00	0.01	

#26: 1710143-04



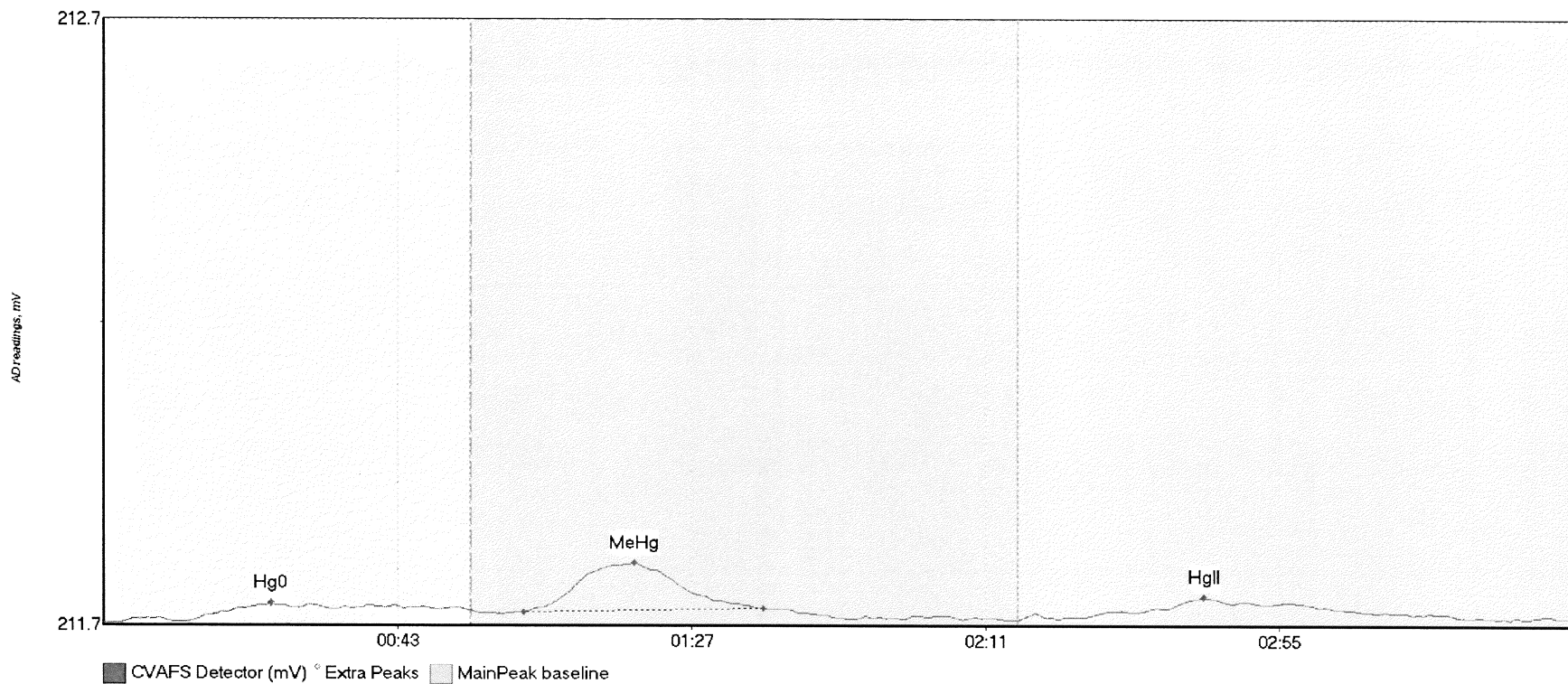
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710143-04 Hg0	3.418	13.1	33.8	211.69	211.71	24.1	0.036	OK	211.6894	0.00	0.01	
1710143-04 MeHg	20.022	64.3	100.3	211.71	211.71	76.1	0.121	OK	211.6894	0.00	0.01	
1710143-04 HgII	174.730	140.6	216.7	211.69	211.70	168.1	0.560	OK	211.6894	0.00	0.01	

#27: 1710143-05



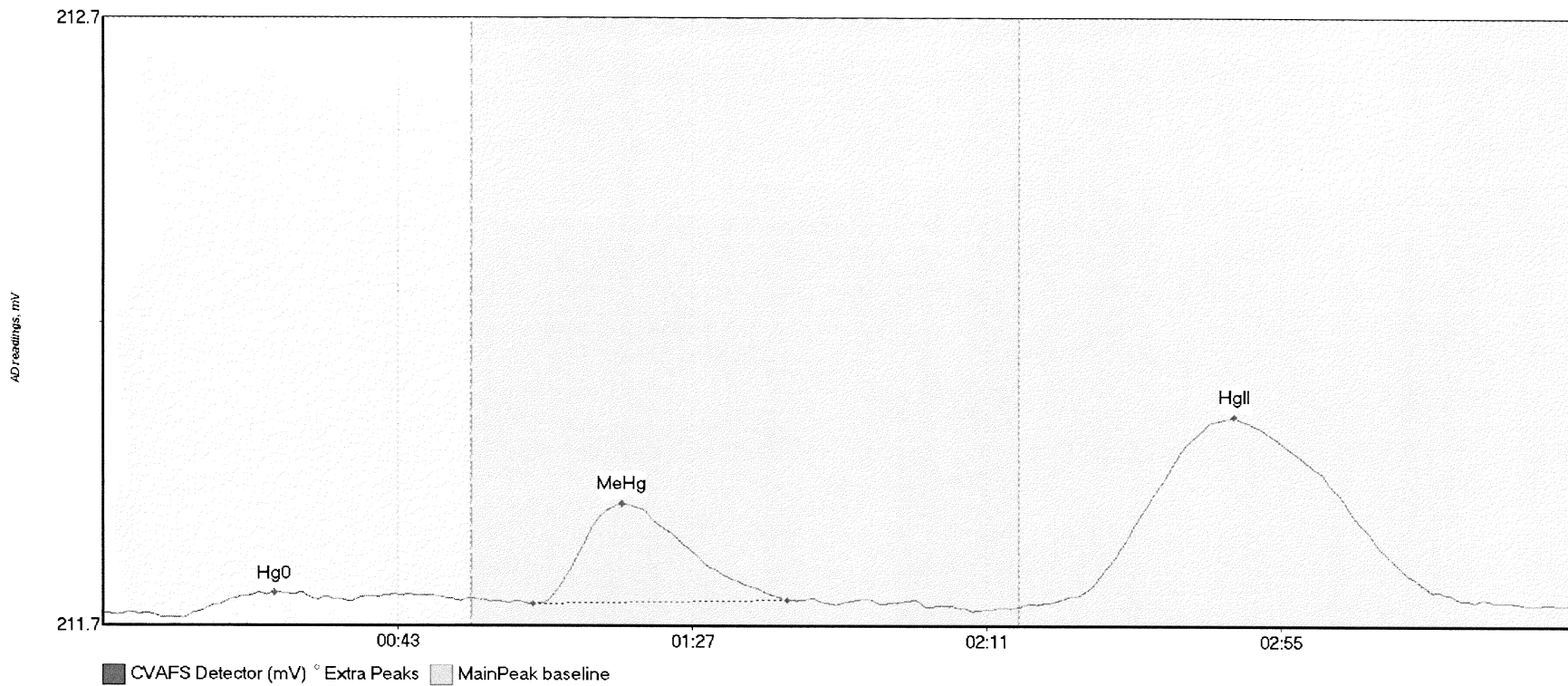
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710143-05 Hg0	3.691	15.9	47.3	211.69	211.71	37.1	0.026	OK	211.6882	0.00	0.00	
1710143-05 MeHg	19.838	64.1	98.6	211.72	211.71	77.5	0.121	OK	211.6882	0.00	0.00	
1710143-05 HgII	33.391	144.3	200.4	211.69	211.69	170.4	0.107	OK	211.6882	0.00	0.00	

#28: 1710143-06



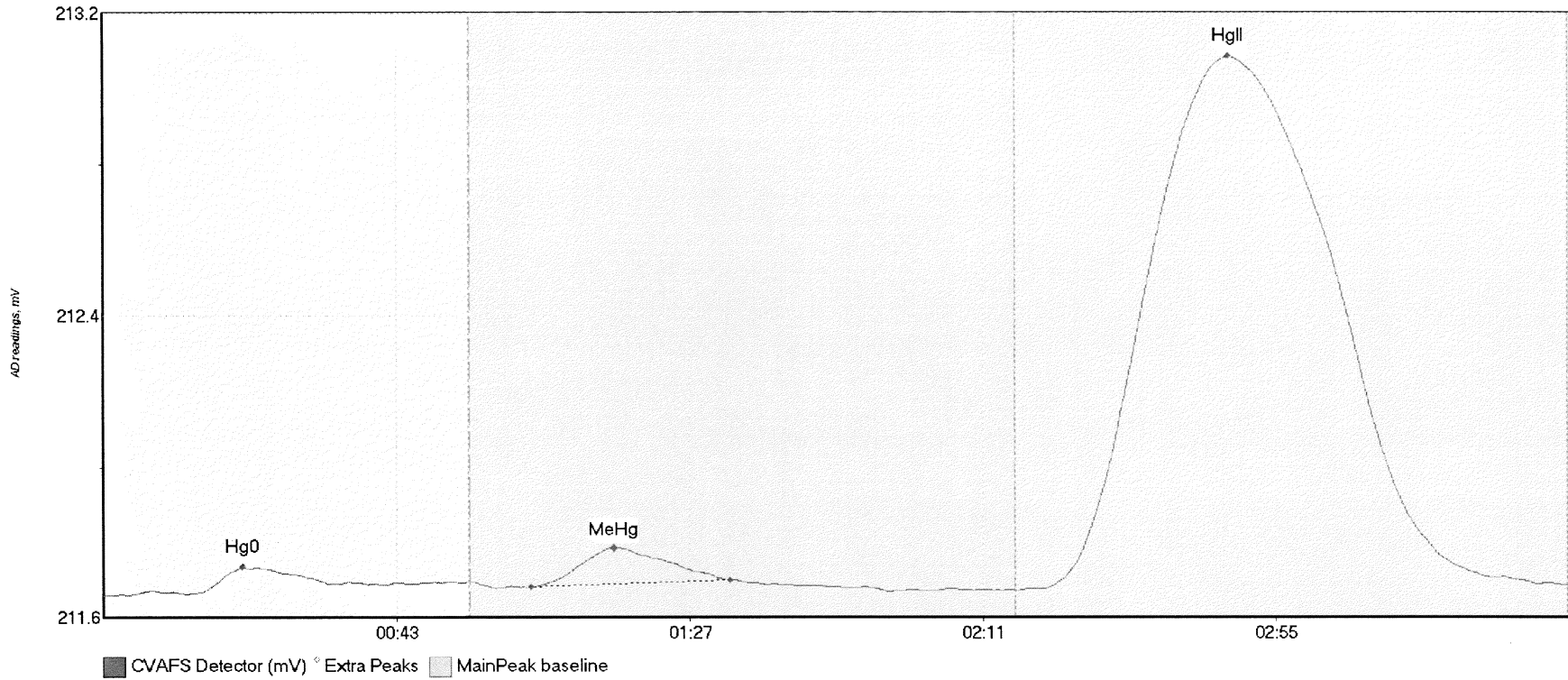
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710143-06 Hg0	5.322	12.5	54.9	211.68	211.70	25.0	0.029	OK	211.6811	0.00	0.01	
1710143-06 MeHg	13.541	62.8	98.7	211.70	211.70	79.5	0.081	OK	211.6811	0.00	0.01	
1710143-06 HgII	8.456	146.8	203.0	211.69	211.69	164.7	0.033	OK	211.6811	0.00	0.01	

#29: 1710351-01



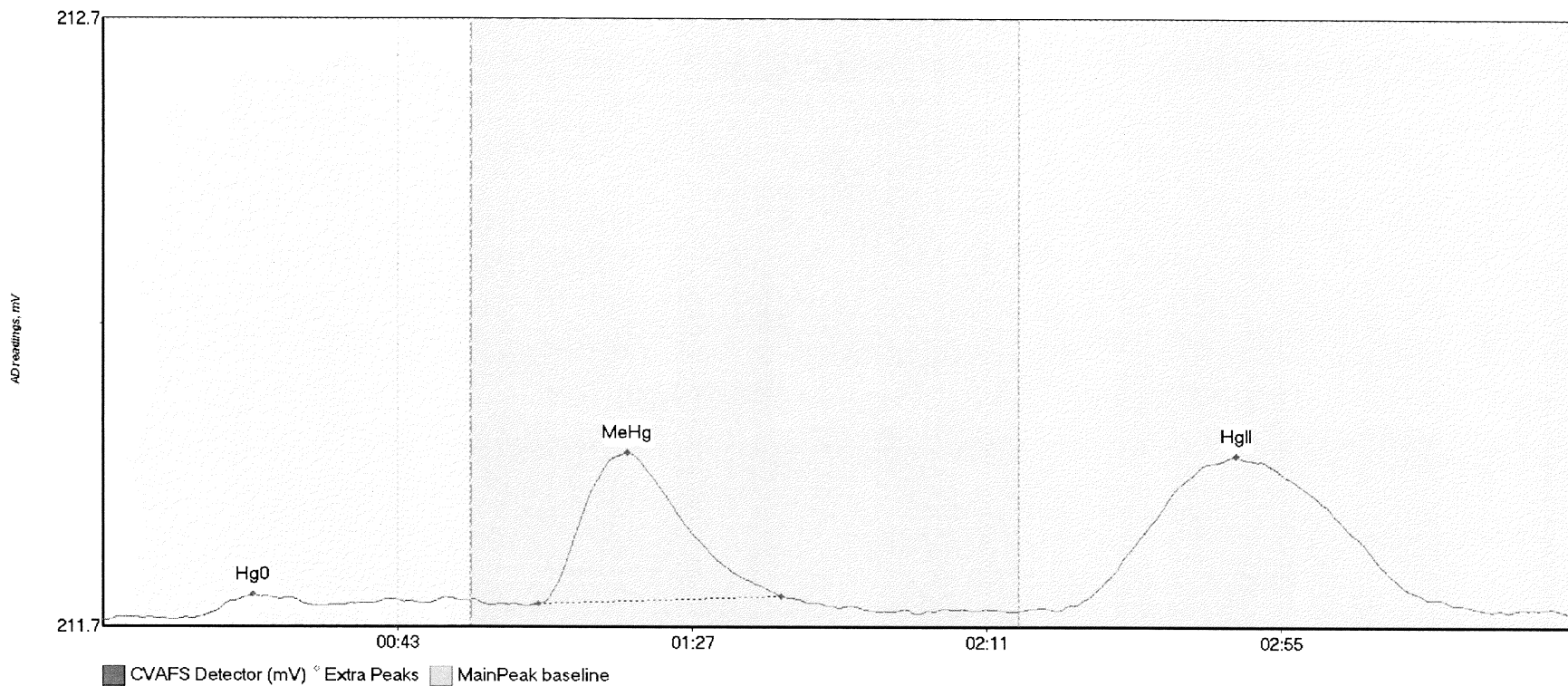
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710351-01 Hg0	4.089	11.8	36.8	211.68	211.71	25.6	0.042	OK	211.6894	0.00	0.02	
1710351-01 MeHg	29.404	64.2	102.1	211.70	211.71	77.4	0.166	OK	211.6894	0.00	0.02	
1710351-01 HgII	95.884	140.2	212.8	211.70	211.70	169.0	0.309	OK	211.6894	0.00	0.02	

#30: 1710351-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710351-03 Hg0	8.025	12.7	41.8	211.69	211.71	20.9	0.069	OK	211.6824	0.00	0.03	
1710351-03 MeHg	14.226	64.1	94.0	211.70	211.72	76.6	0.105	OK	211.6824	0.00	0.03	
1710351-03 HgII	436.646	140.9	219.8	211.70	211.71	168.9	1.383	CT	211.6824	0.00	0.03	

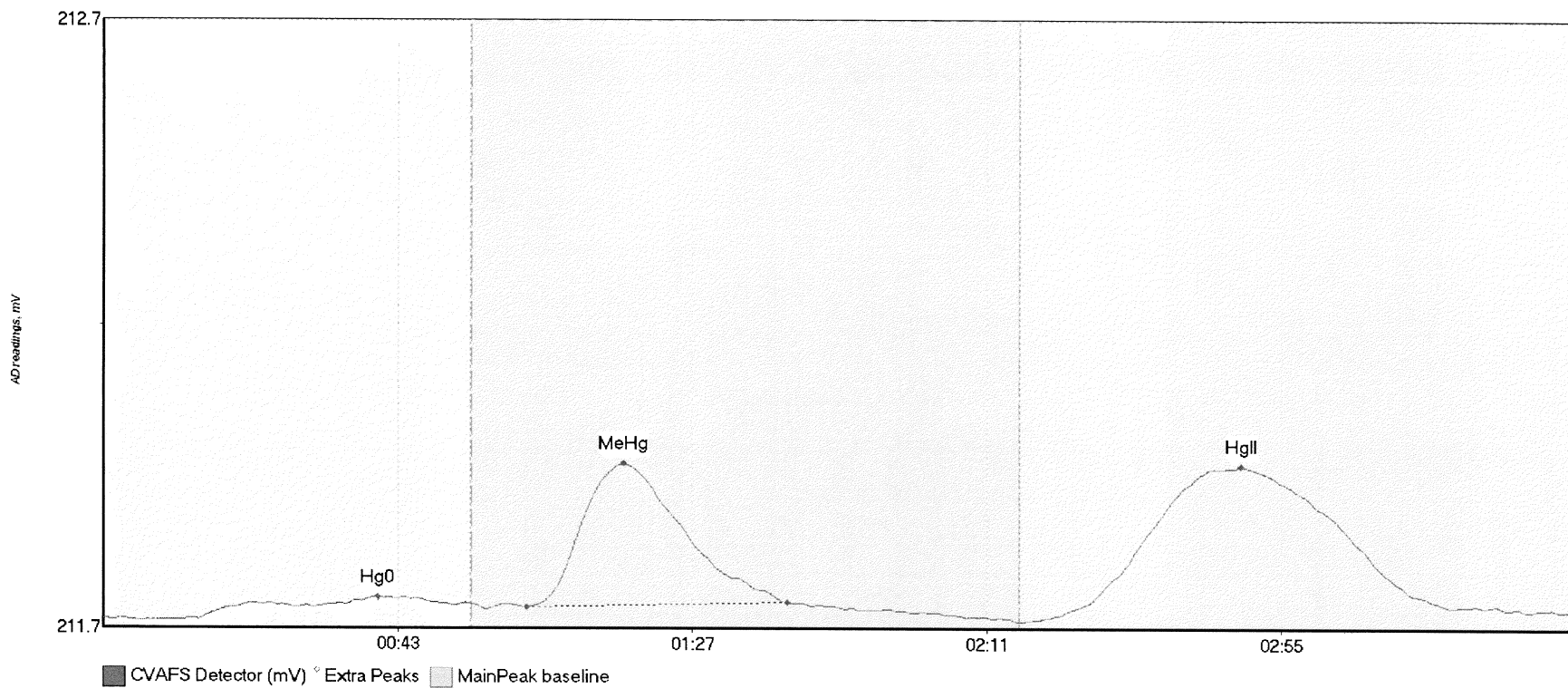
#31: 1710351-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710351-04 Hg0	2.893	13.6	32.9	211.68	211.70	22.5	0.038	OK	211.6731	0.00	0.01	
1710351-04 MeHg	41.627	65.0	101.3	211.70	211.71	78.3	0.250	OK	211.6731	0.00	0.01	
1710351-04 HgII	78.198	142.5	205.7	211.69	211.69	169.3	0.255	OK	211.6731	0.00	0.01	

017

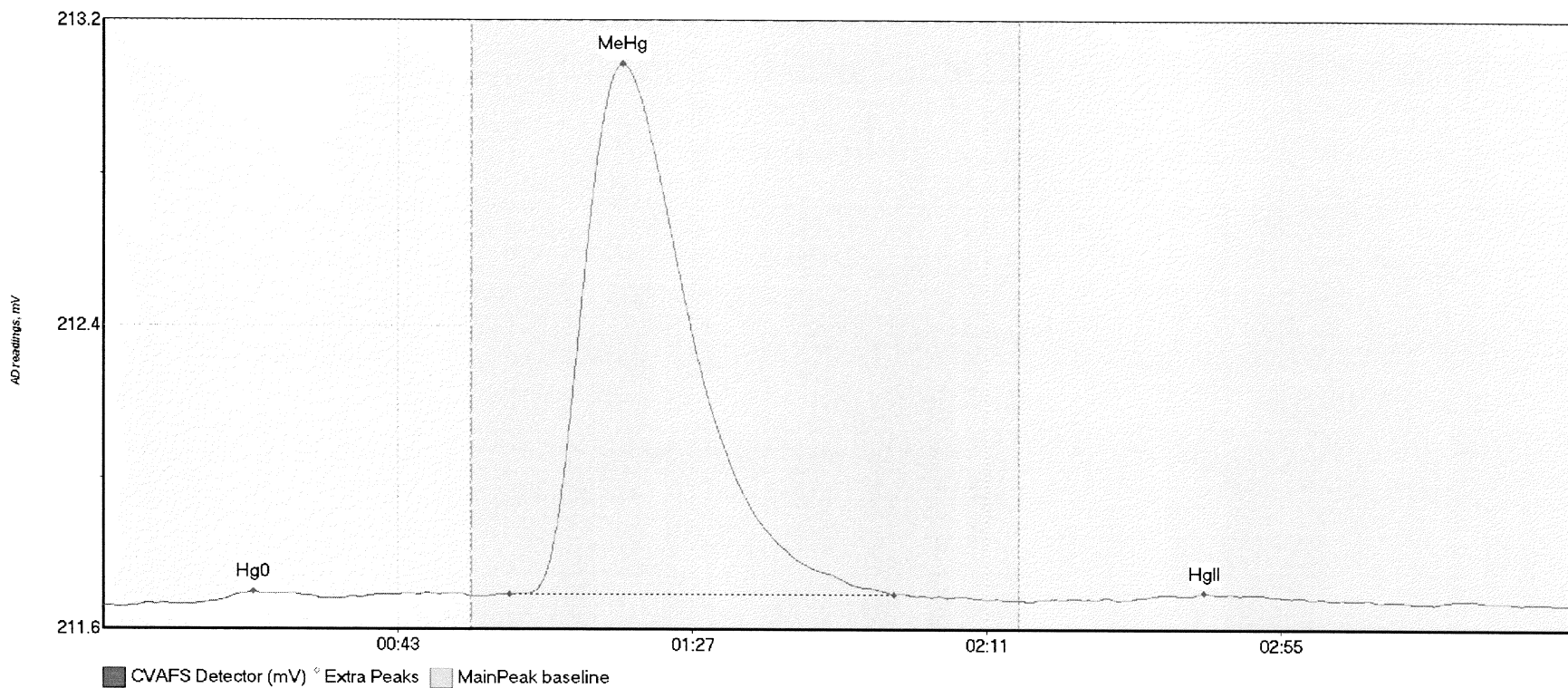
#32: 1710351-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710351-05 Hg0	5.150	14.3	52.3	211.68	211.70	41.0	0.037	OK	211.6818	0.00	0.01	
1710351-05 MeHg	40.138	63.3	102.2	211.70	211.71	77.8	0.237	OK	211.6818	0.00	0.01	
1710351-05 HgII	80.135	139.1	219.8	211.68	211.69	170.0	0.254	CT	211.6818	0.00	0.01	

017

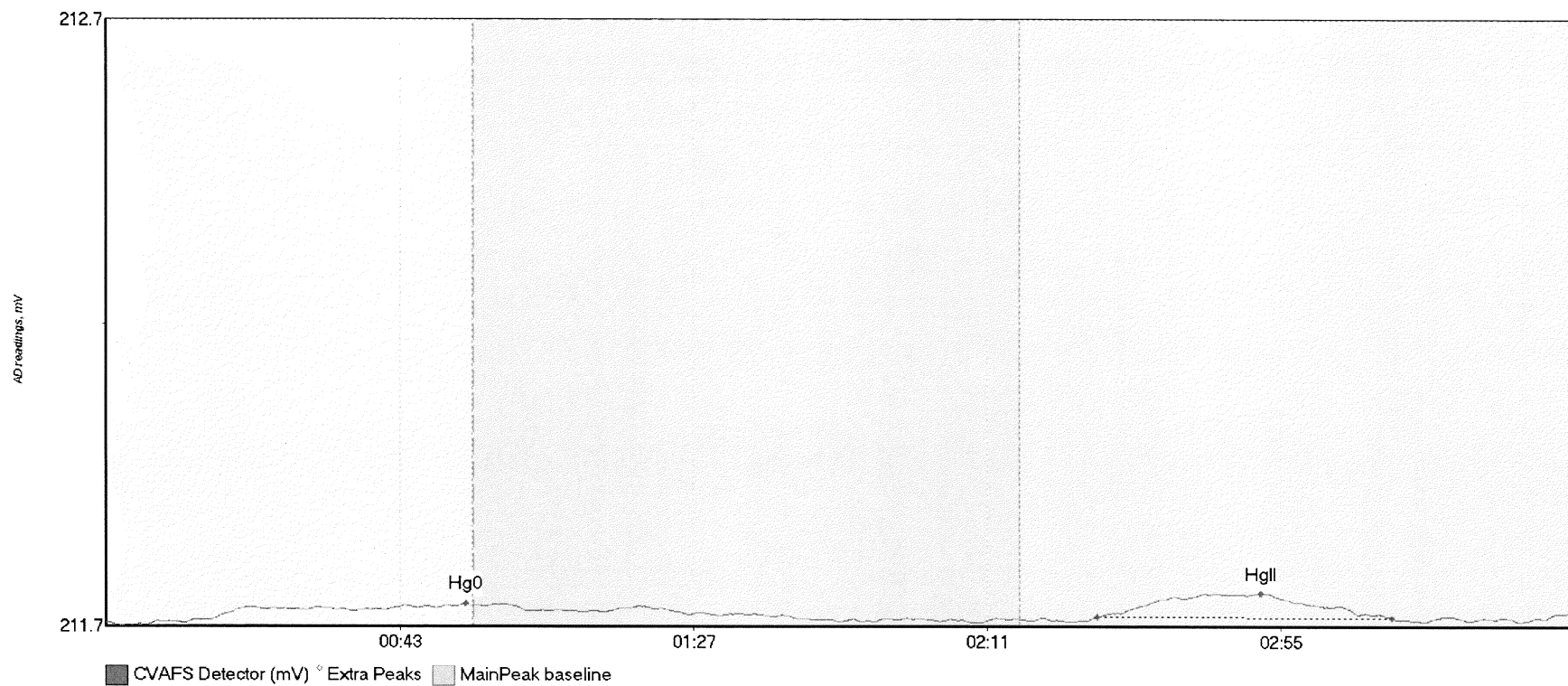
#33: SEQ-CCV2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	2.417	10.6	32.8	211.68	211.69	22.5	0.032	OK	211.6743	0.00	0.01	
SEQ-CCV2 MeHg	255.446	60.7	118.2	211.70	211.70	77.6	1.376	OK	211.6743	0.00	0.01	
SEQ-CCV2 HgII	2.483	153.6	180.5	211.69	211.69	164.6	0.017	OK	211.6743	0.00	0.01	

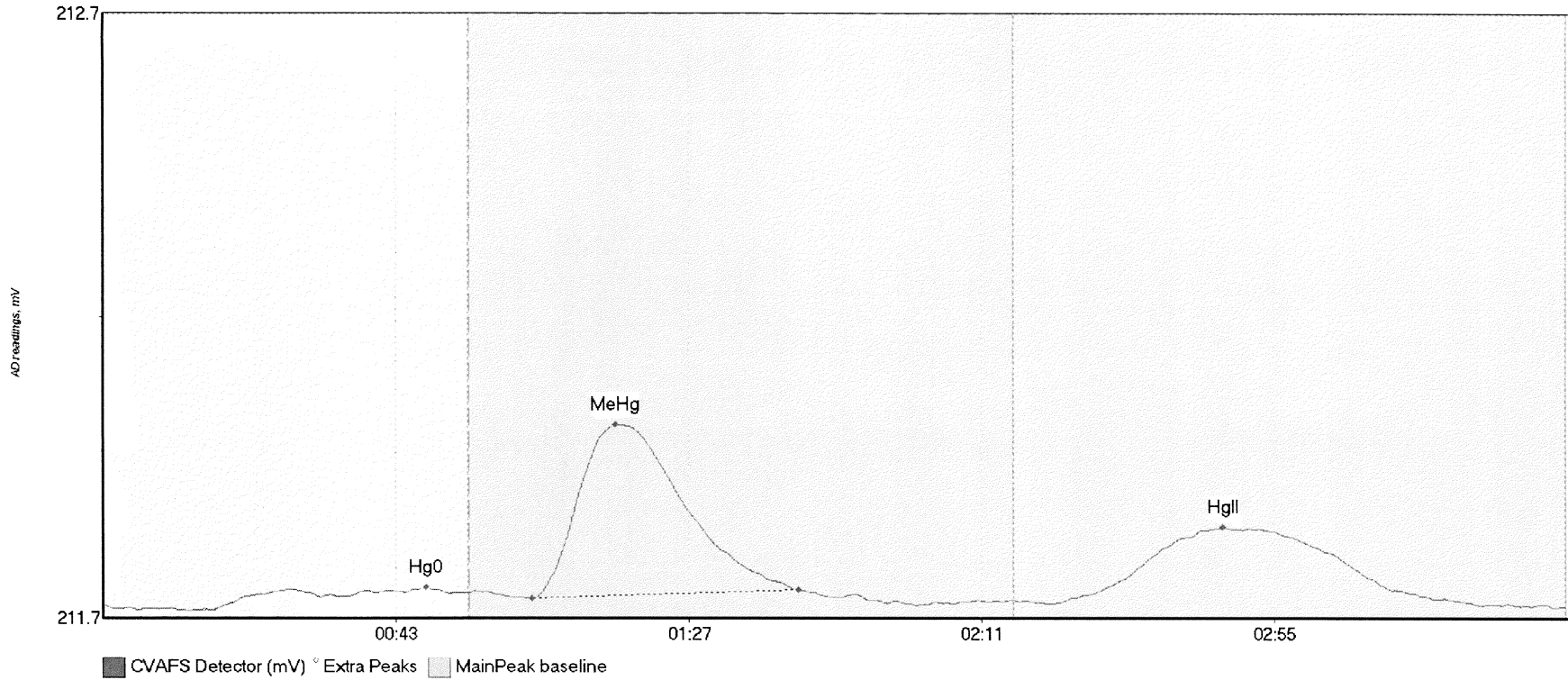
017

#34: SEQ-CCB2



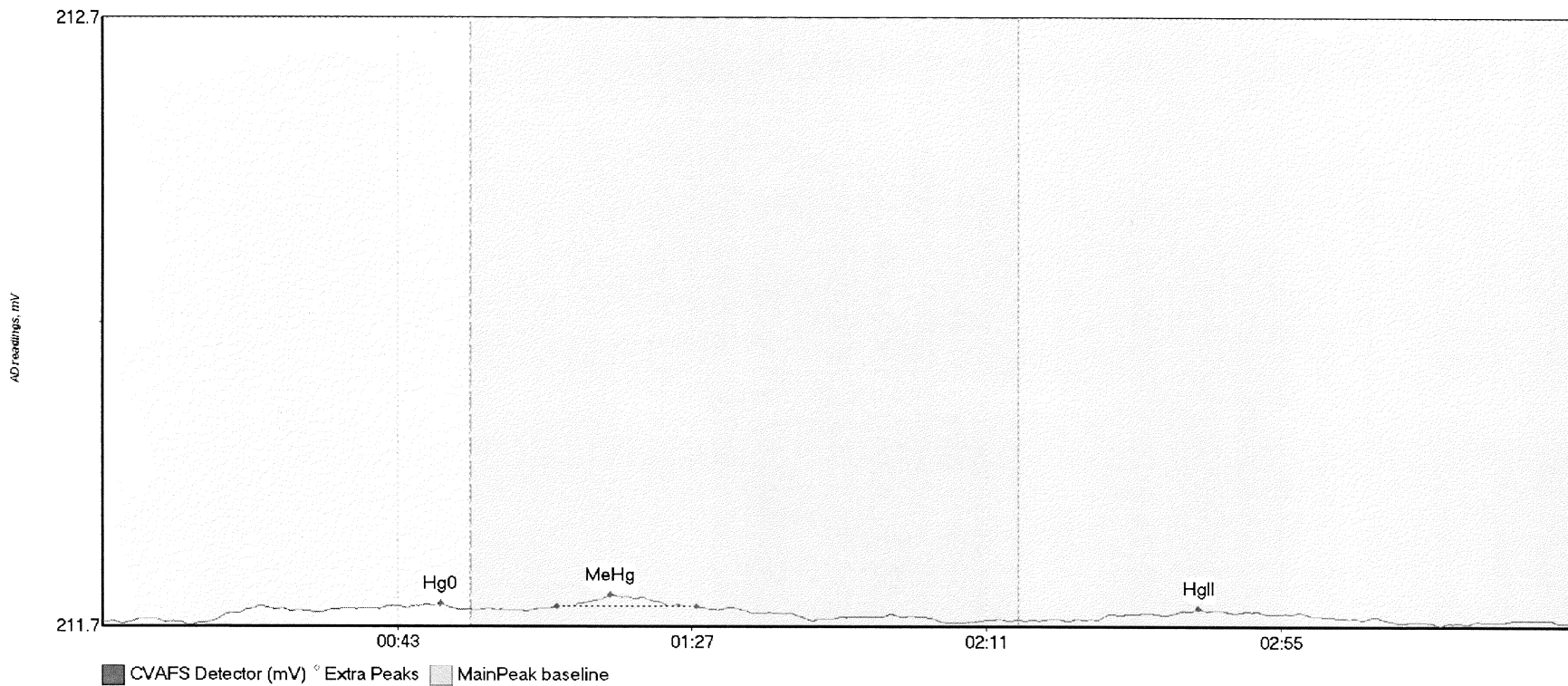
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	2.537	15.2	55.0	211.68	211.70	53.8	0.026	CT	211.6741	0.00	0.02	
SEQ-CCB2 HgII	10.739	148.4	192.8	211.68	211.68	173.1	0.040	OK	211.6741	0.00	0.02	017

#35: 1710351-07



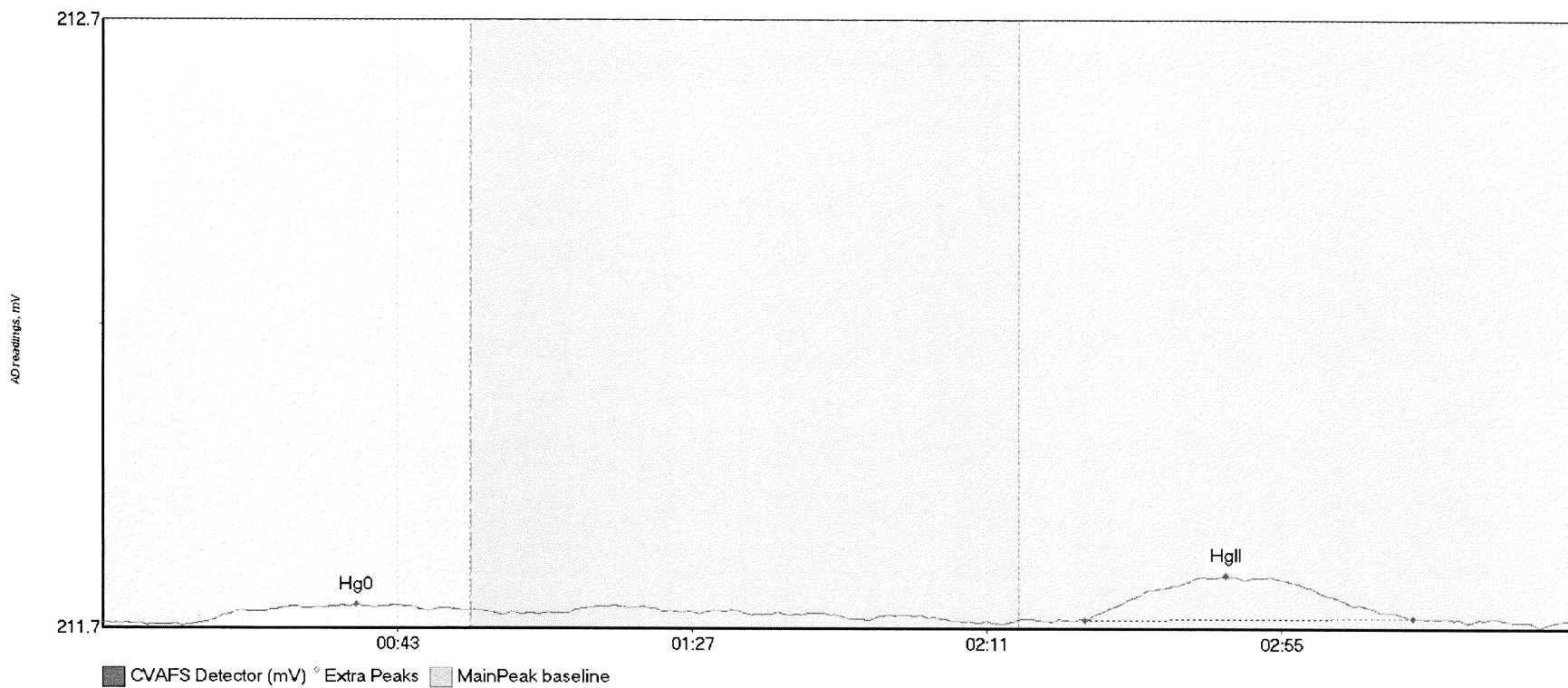
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710351-07 Hg0	4.484	16.3	51.9	211.67	211.70	48.6	0.037	OK	211.6797	0.00	0.00	
1710351-07 MeHg	51.259	64.4	104.4	211.69	211.71	77.0	0.288	OK	211.6797	0.00	0.00	
1710351-07 HgII	35.171	145.8	200.2	211.69	211.69	168.3	0.117	OK	211.6797	0.00	0.00	

#36: 1710351-08



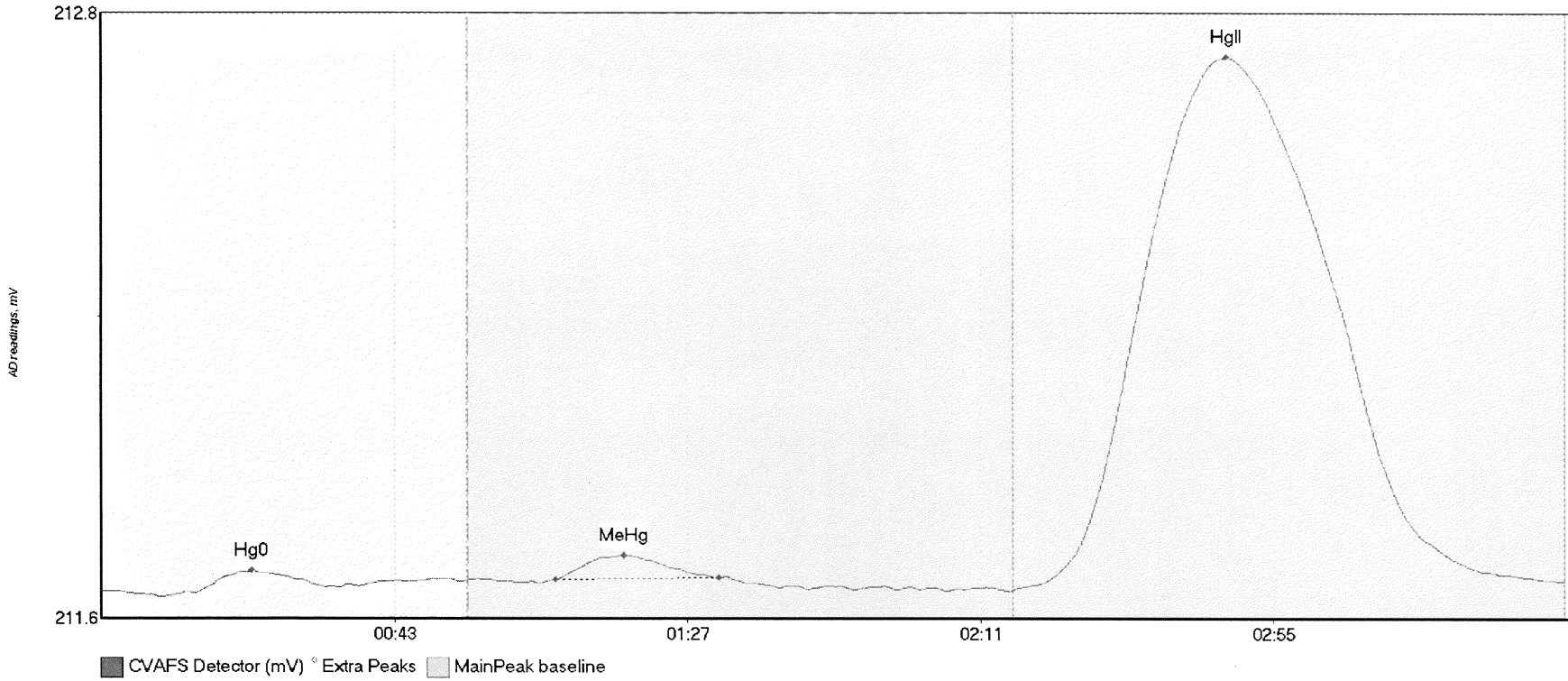
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710351-08 Hg0	4.092	15.6	53.3	211.68	211.70	50.4	0.030	OK	211.6841	0.00	0.00	
1710351-08 MeHg	1.806	67.9	88.8	211.71	211.71	75.9	0.019	OK	211.6841	0.00	0.00	
1710351-08 HgII	3.339	148.7	184.8	211.69	211.69	163.8	0.018	OK	211.6841	0.00	0.00	

#37: 1710360-01



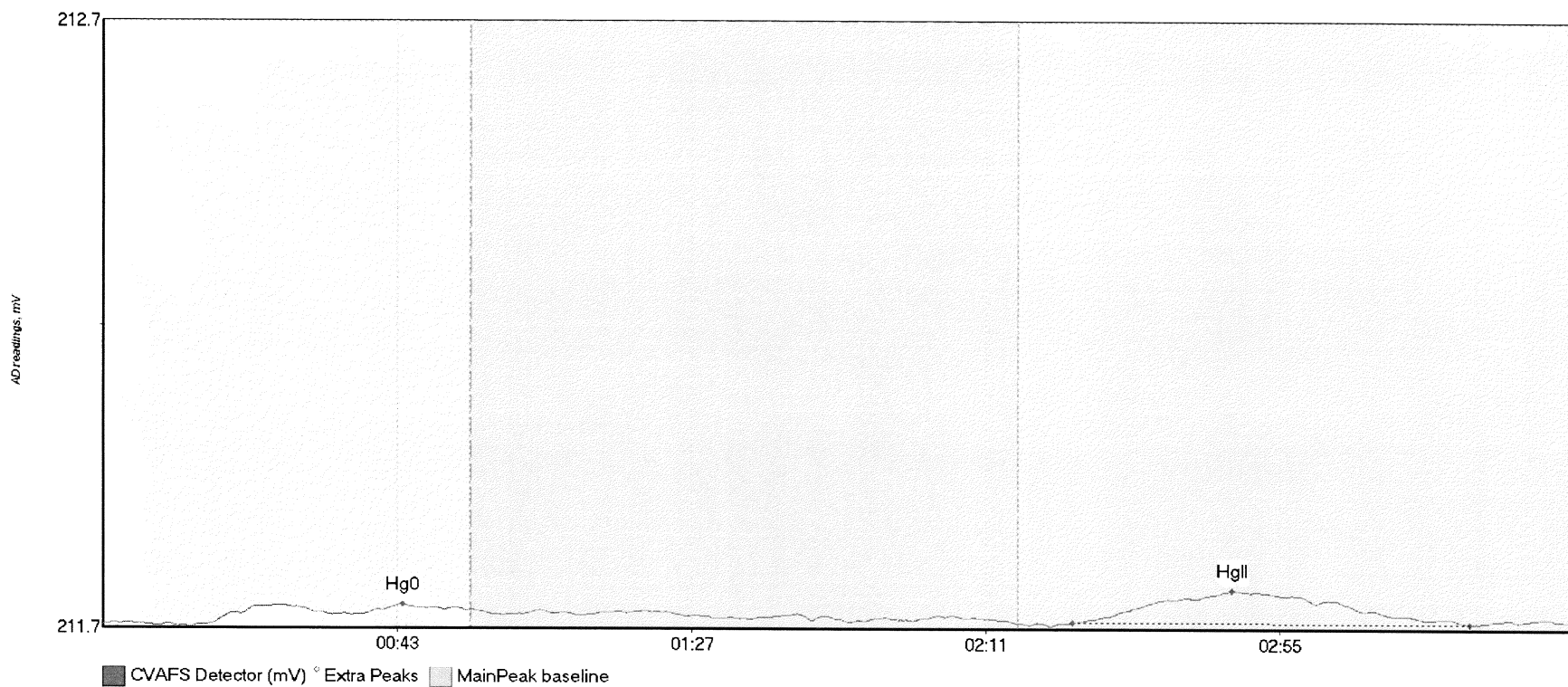
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710360-01 Hg0	4.550	13.3	48.6	211.67	211.70	37.9	0.032	OK	211.6765	0.00	0.00	
1710360-01 HgII	20.945	146.8	195.8	211.68	211.68	167.7	0.073	OK	211.6765	0.00	0.00	017

#38: 1710360-02



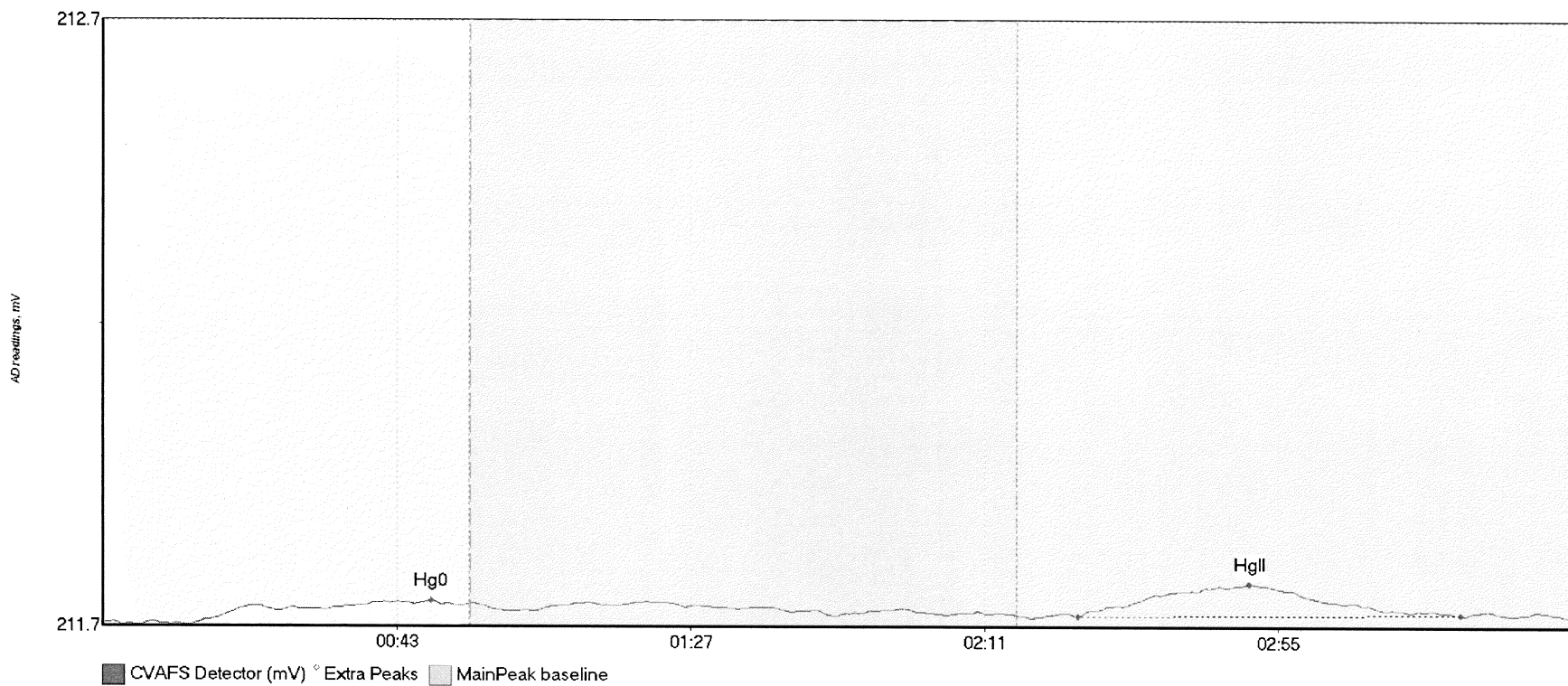
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710360-02 Hg0	4.345	13.9	35.7	211.68	211.69	22.6	0.041	OK	211.6827	0.00	0.02	
1710360-02 MeHg	6.093	68.1	92.8	211.70	211.71	78.5	0.045	OK	211.6827	0.00	0.02	
1710360-02 HgII	314.735	138.2	219.1	211.69	211.70	168.9	1.004	OK	211.6827	0.00	0.02	

#39: 1710360-03



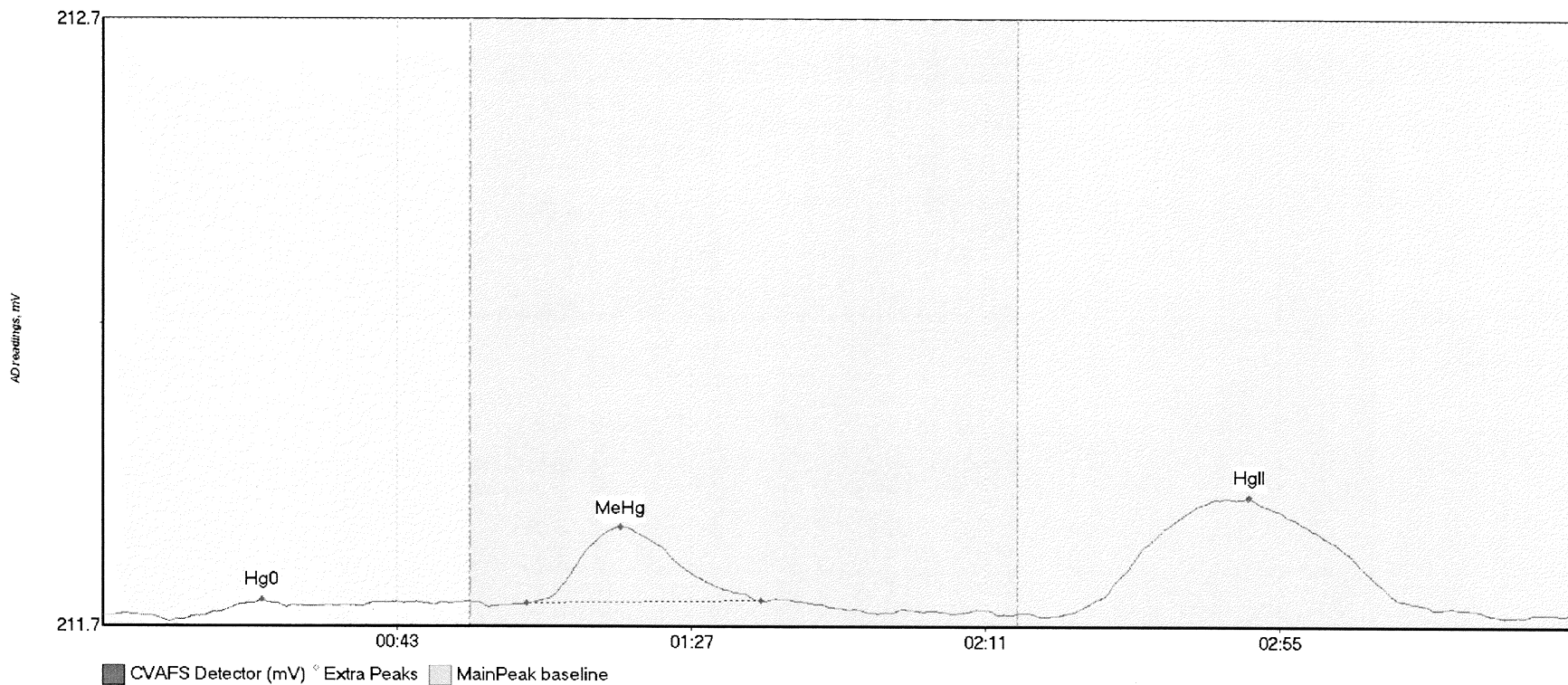
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710360-03 Hg0	4.420	15.8	54.2	211.68	211.71	44.9	0.033	OK	211.6832	0.00	0.01	
1710360-03 HgII	17.142	145.0	204.4	211.69	211.69	168.9	0.054	OK	211.6832	0.00	0.01	017

#40: 1710360-04



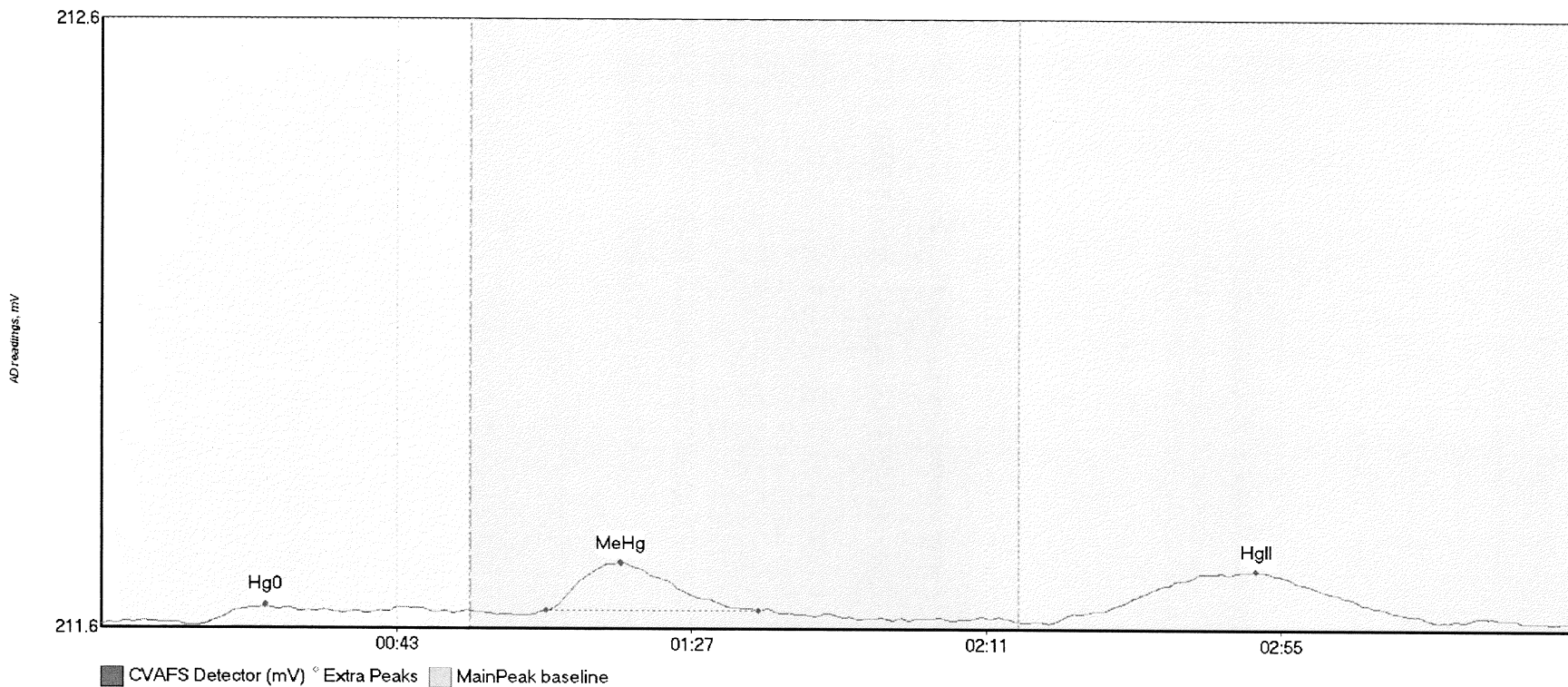
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710360-04 Hg0	3.540	16.0	53.8	211.68	211.71	49.2	0.030	OK	211.6797	0.00	0.01	
1710360-04 HgII	15.165	146.0	203.4	211.69	211.69	171.7	0.054	OK	211.6797	0.00	0.01	017

#41: 1710366-01RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710366-01RE1 H	0.992	15.2	27.4	211.67	211.68	23.8	0.025	OK	211.6703	0.00	0.00	
1710366-01RE1 M	20.173	63.5	98.4	211.69	211.69	77.4	0.127	OK	211.6703	0.00	0.00	
1710366-01RE1 H	58.804	145.2	207.9	211.68	211.67	171.4	0.190	OK	211.6703	0.00	0.00	

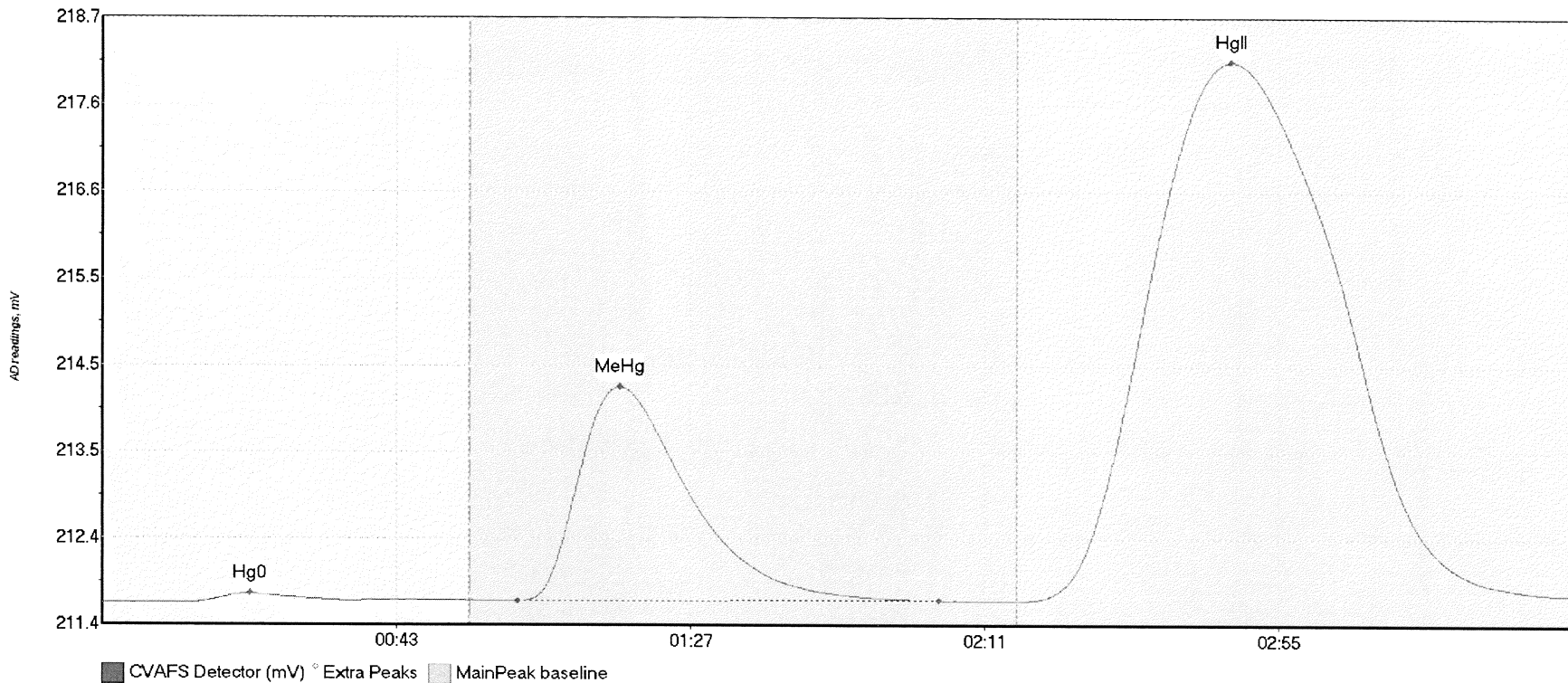
#42: 1710478-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710478-02 Hg0	3.120	14.3	39.6	211.65	211.67	24.4	0.032	OK	211.6548	0.00	0.01	
1710478-02 MeHg	12.049	66.3	98.0	211.68	211.68	77.5	0.079	OK	211.6548	0.00	0.01	
1710478-02 HgII	26.009	142.1	199.5	211.66	211.66	172.3	0.085	OK	211.6548	0.00	0.01	

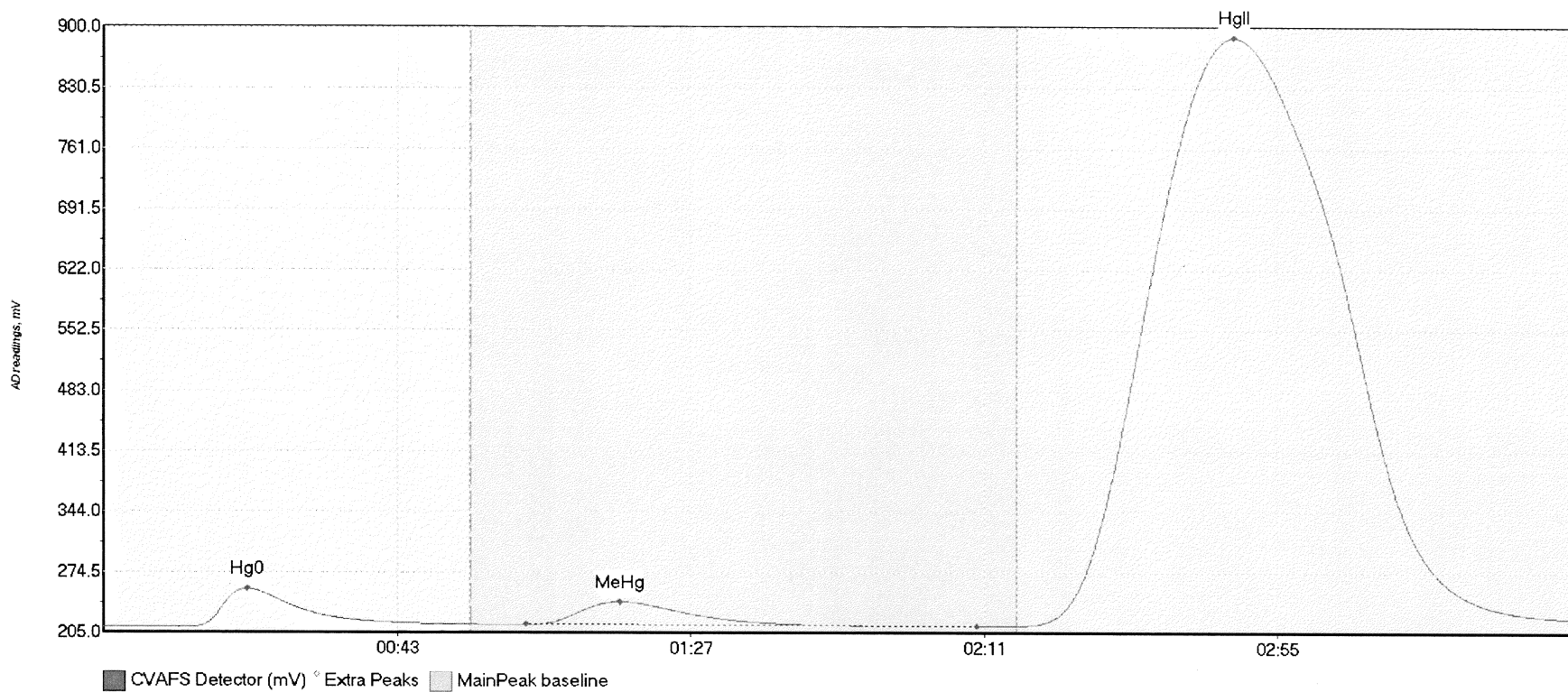
017

#43: 1710581-01



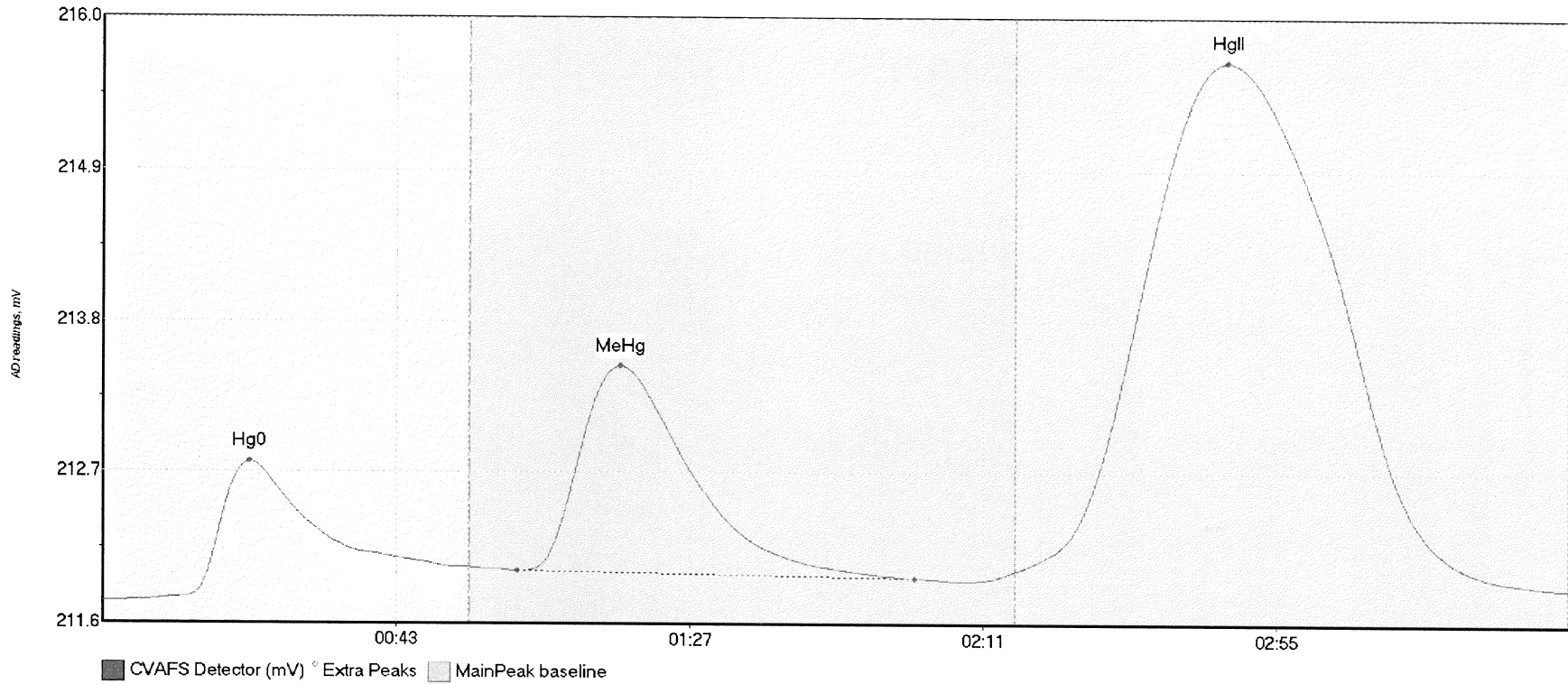
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710581-01 Hg0	11.078	10.7	37.6	211.64	211.67	22.1	0.107	OK	211.6443	0.00	0.11	
1710581-01 MeHg	486.910	62.1	125.2	211.67	211.68	77.4	2.573	OK	211.6443	0.00	0.11	017
1710581-01 HgII	2057.180	137.8	218.5	211.67	211.75	168.9	6.470	OK	211.6443	0.00	0.11	

#44: 1710581-02



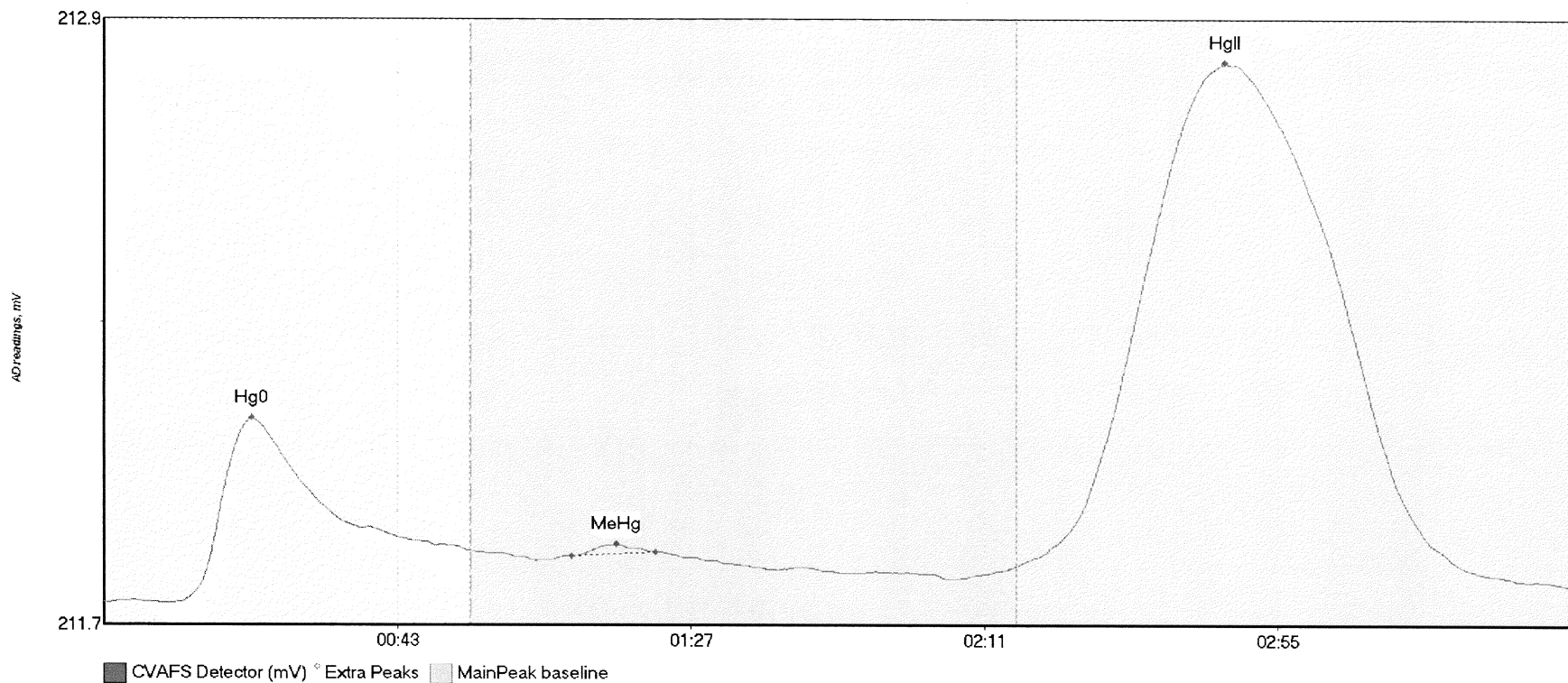
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710581-02 Hg0	5493.160	11.1	55.0	211.64	214.45	21.6	43.423	CT	211.6536	0.00	9.69	
1710581-02 MeHg	4959.624	63.3	130.9	213.85	212.47	77.5	26.322	OK	211.6536	0.00	9.69	
1710581-02 HgII	216093.962	136.8	219.8	212.71	221.25	169.5	675.426	CT	211.6536	0.00	9.69	

#45: SEQ-CCV3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	138.298	1.9	55.0	211.78	212.03	22.0	0.999	CT	211.7833	0.00	0.11	
SEQ-CCV3 MeHg	281.903	62.1	121.7	212.00	211.95	77.6	1.470	OK	211.7833	0.00	0.11	017
SEQ-CCV3 HgII	1197.190	136.8	218.3	212.01	211.89	168.6	3.653	OK	211.7833	0.00	0.11	

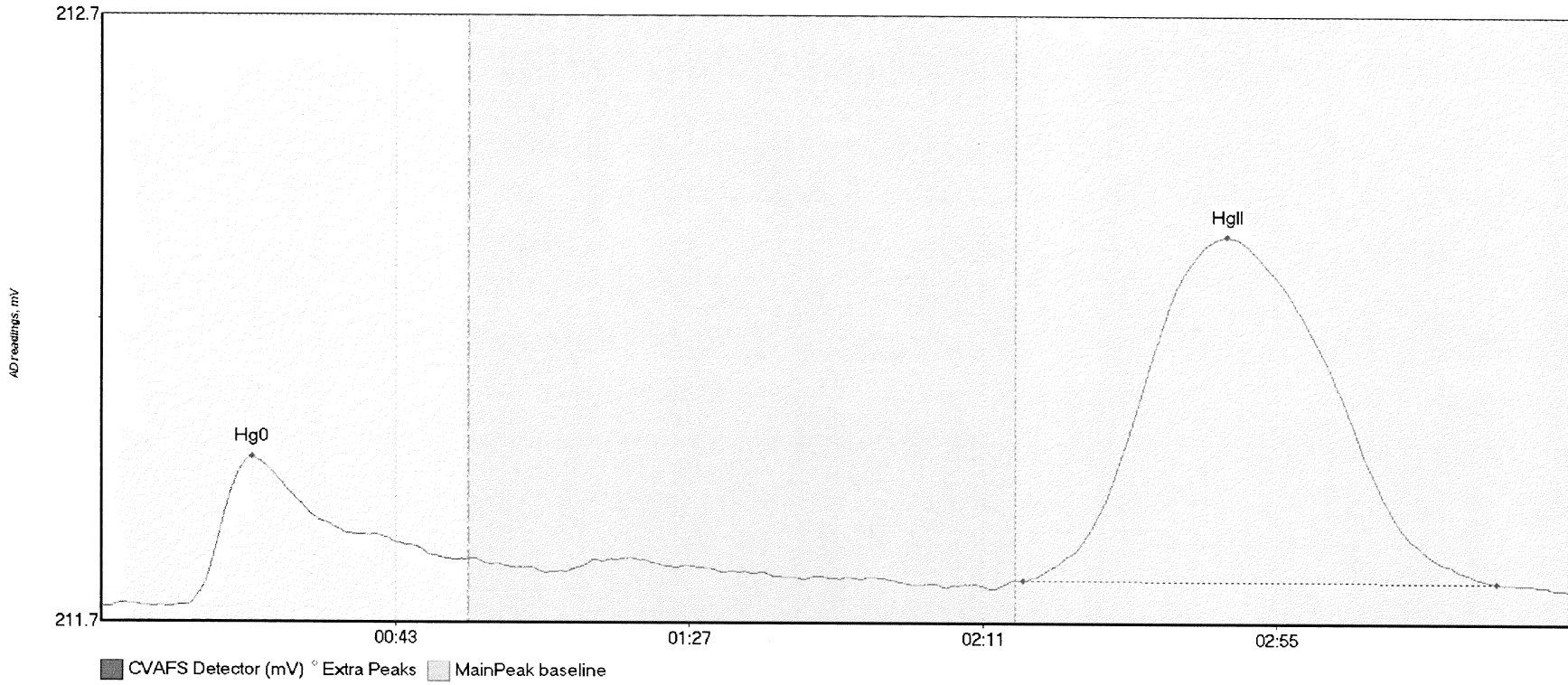
#46: SEQ-CCB3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	56.176	11.3	55.0	211.72	211.82	22.1	0.372	CT	211.7157	0.00	0.03	
SEQ-CCB3 MeHg	1.333	70.1	82.8	211.81	211.82	76.9	0.024	OK	211.7157	0.00	0.03	
SEQ-CCB3 HgII	329.320	136.8	208.1	211.79	211.77	168.1	1.019	OK	211.7157	0.00	0.03	

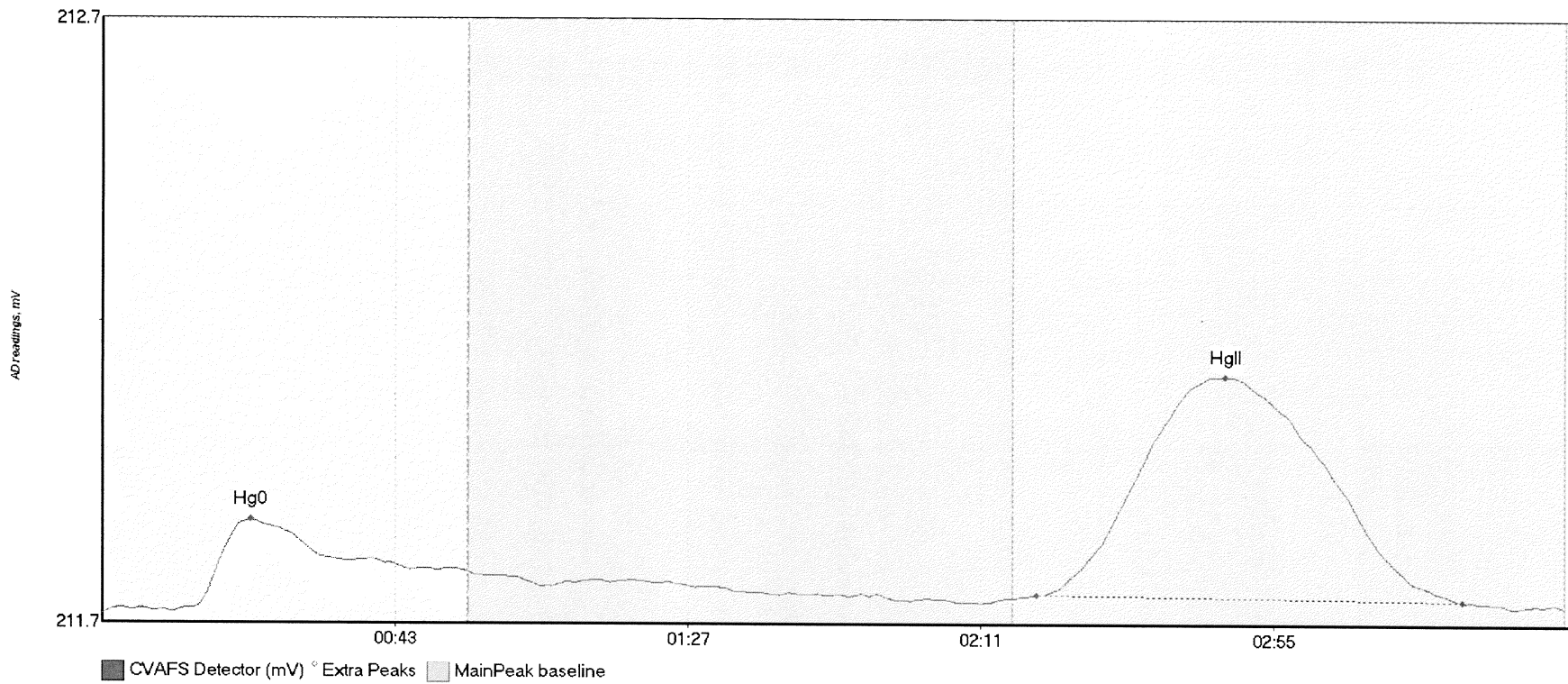
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#47: F710421-BLK1



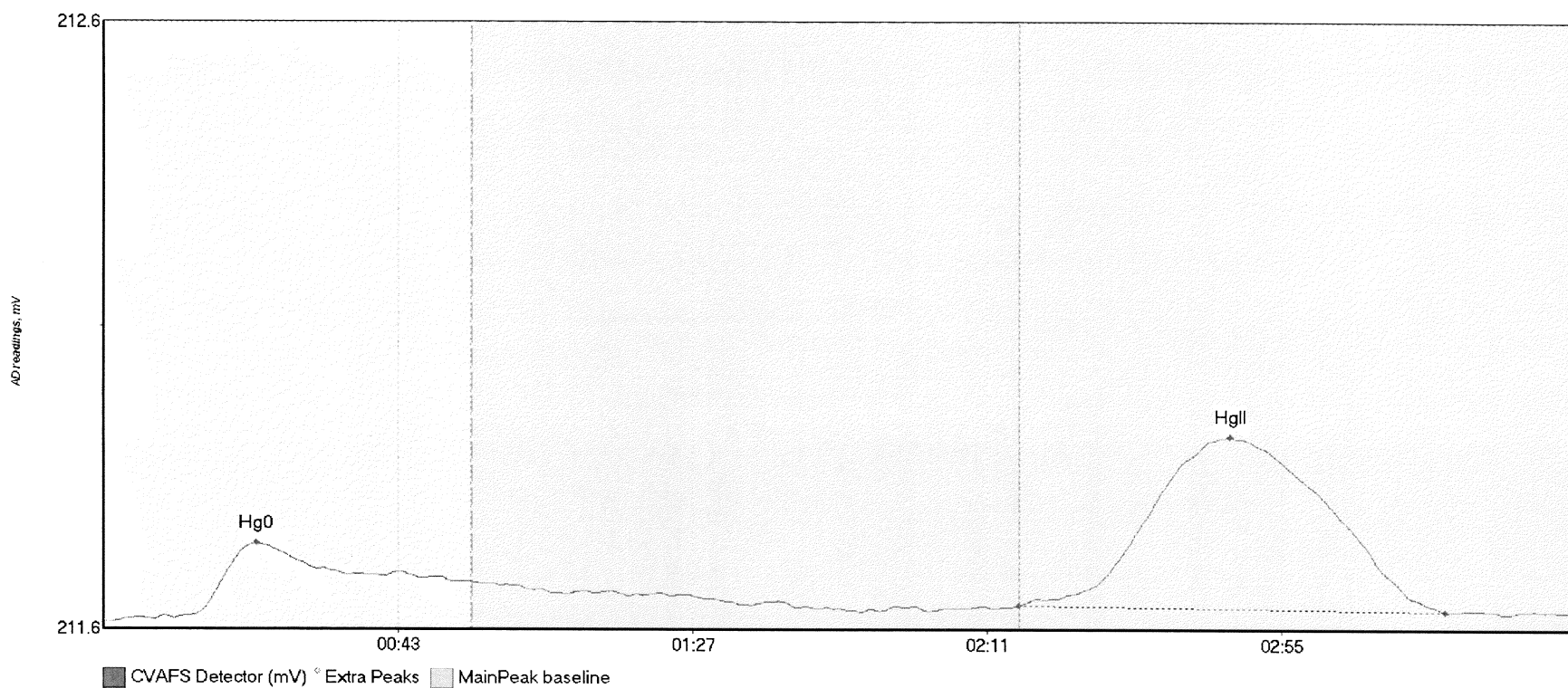
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLK1 Hg	38.054	13.0	53.1	211.68	211.76	22.6	0.244	OK	211.6825	0.00	0.03	
F710421-BLK1 Hg	181.212	138.0	209.0	211.73	211.72	168.6	0.569	OK	211.6825	0.00	0.03	017

#48: F710421-BLK2



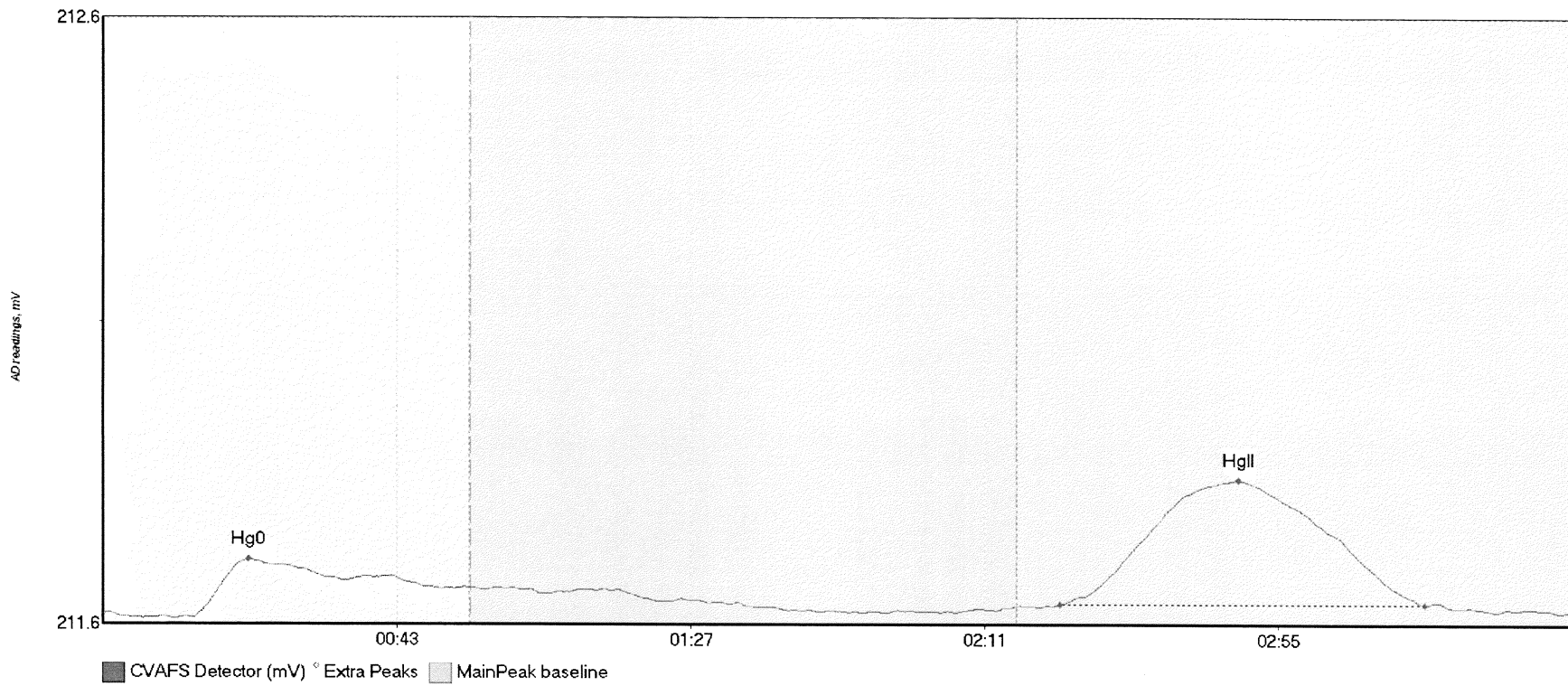
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLK2 Hg	24.069	10.6	55.0	211.68	211.75	22.3	0.152	CT	211.6777	0.00	0.01	
F710421-BLK2 Hg	115.488	140.4	204.4	211.71	211.70	168.7	0.363	OK	211.6777	0.00	0.01	017

#49: F710421-BLK3



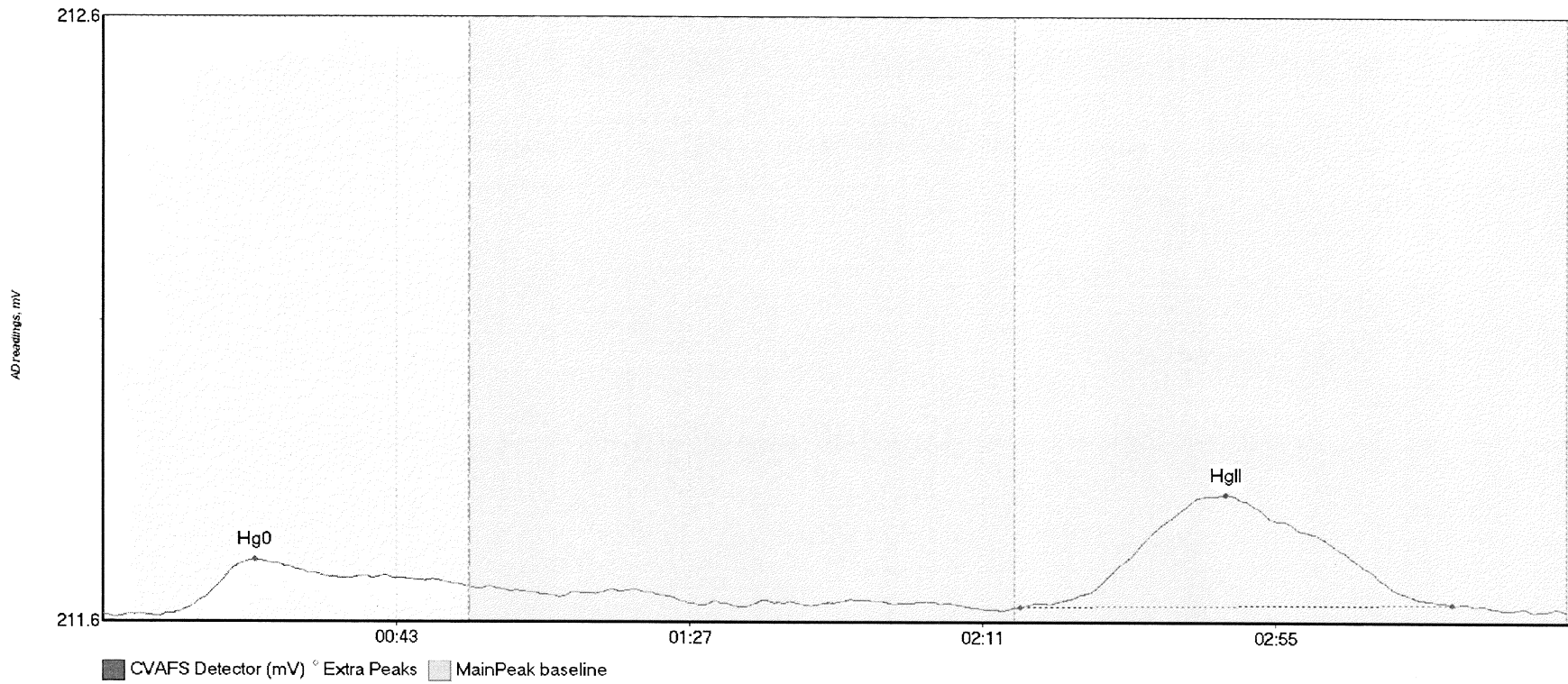
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLK3 Hg	19.036	10.6	55.0	211.67	211.73	22.8	0.125	CT	211.6622	0.00	0.01	
F710421-BLK3 Hg	85.796	136.8	200.4	211.69	211.68	168.3	0.279	OK	211.6622	0.00	0.01	017

#50: *F710421-BLK4



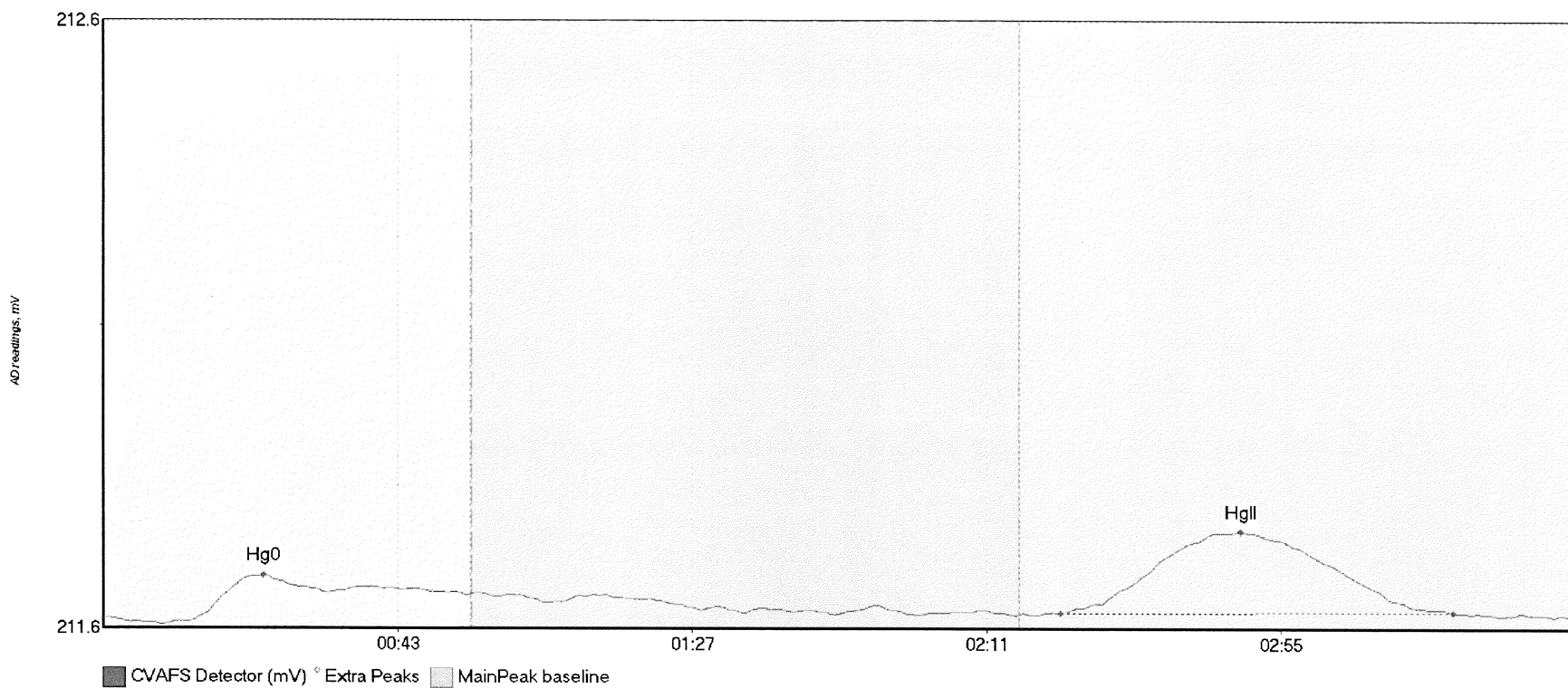
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLK4 H	15.797	13.4	50.8	211.65	211.70	21.8	0.096	OK	211.6566	0.00	0.00	
*F710421-BLK4 H	60.767	143.3	198.0	211.67	211.67	170.0	0.206	OK	211.6566	0.00	0.00	117

#51: *F710421-BLK5



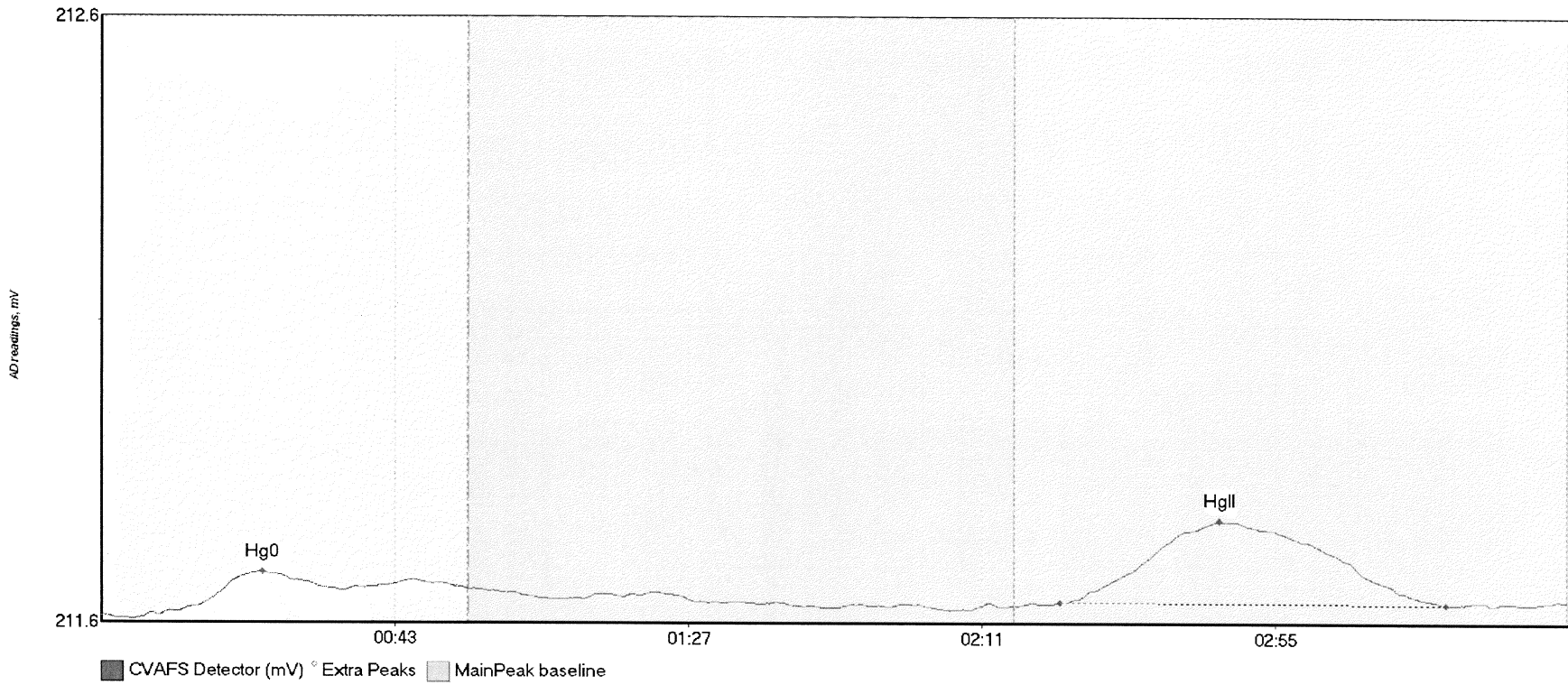
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLK5 H	15.662	11.3	55.0	211.65	211.69	22.9	0.087	CT	211.6430	0.00	0.01	
*F710421-BLK5 H	55.608	137.7	202.6	211.66	211.66	168.6	0.187	OK	211.6430	0.00	0.01	017

#52: *F710421-BLK6



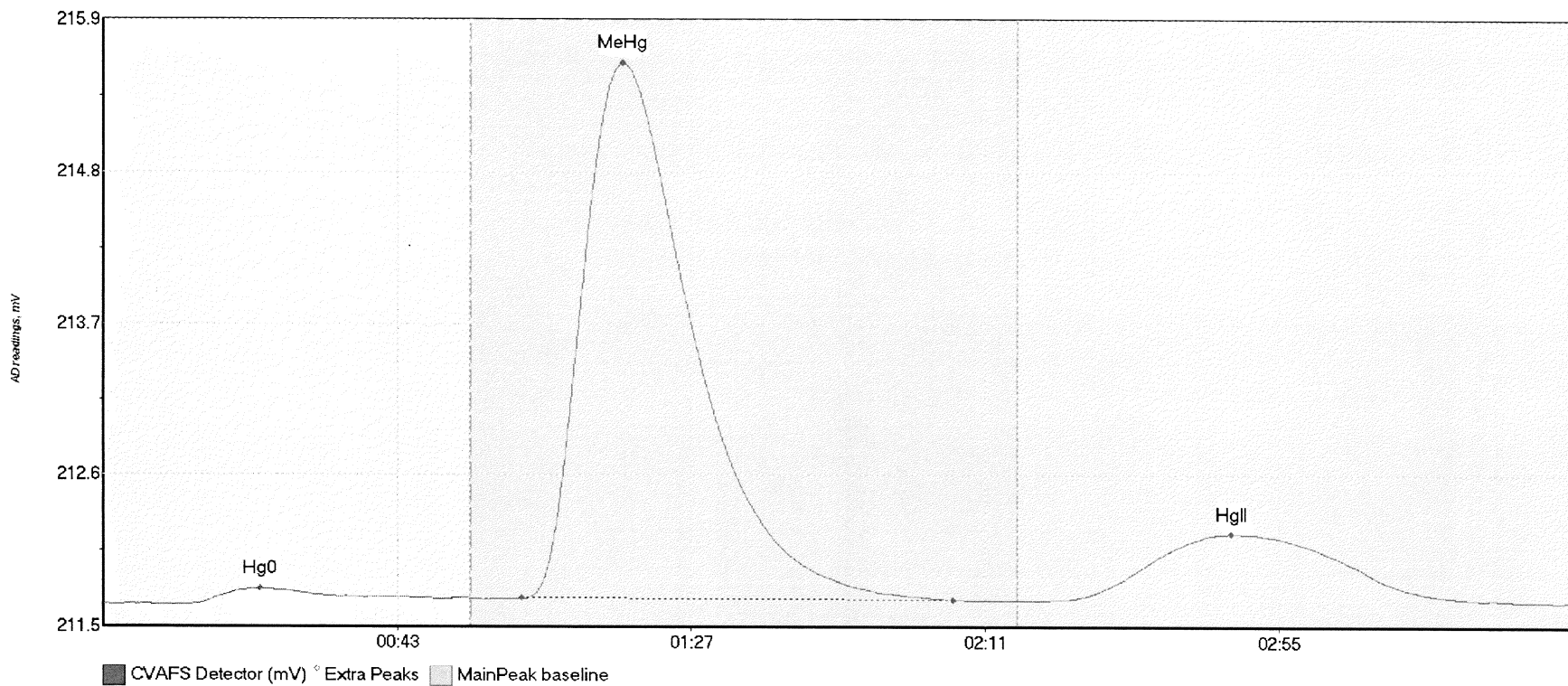
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLK6 H	12.333	12.5	54.3	211.63	211.67	24.0	0.075	OK	211.6361	0.00	0.00	
*F710421-BLK6 H	39.383	143.0	201.8	211.64	211.64	170.1	0.135	OK	211.6361	0.00	0.00	017

#53: *F710421-BLK7



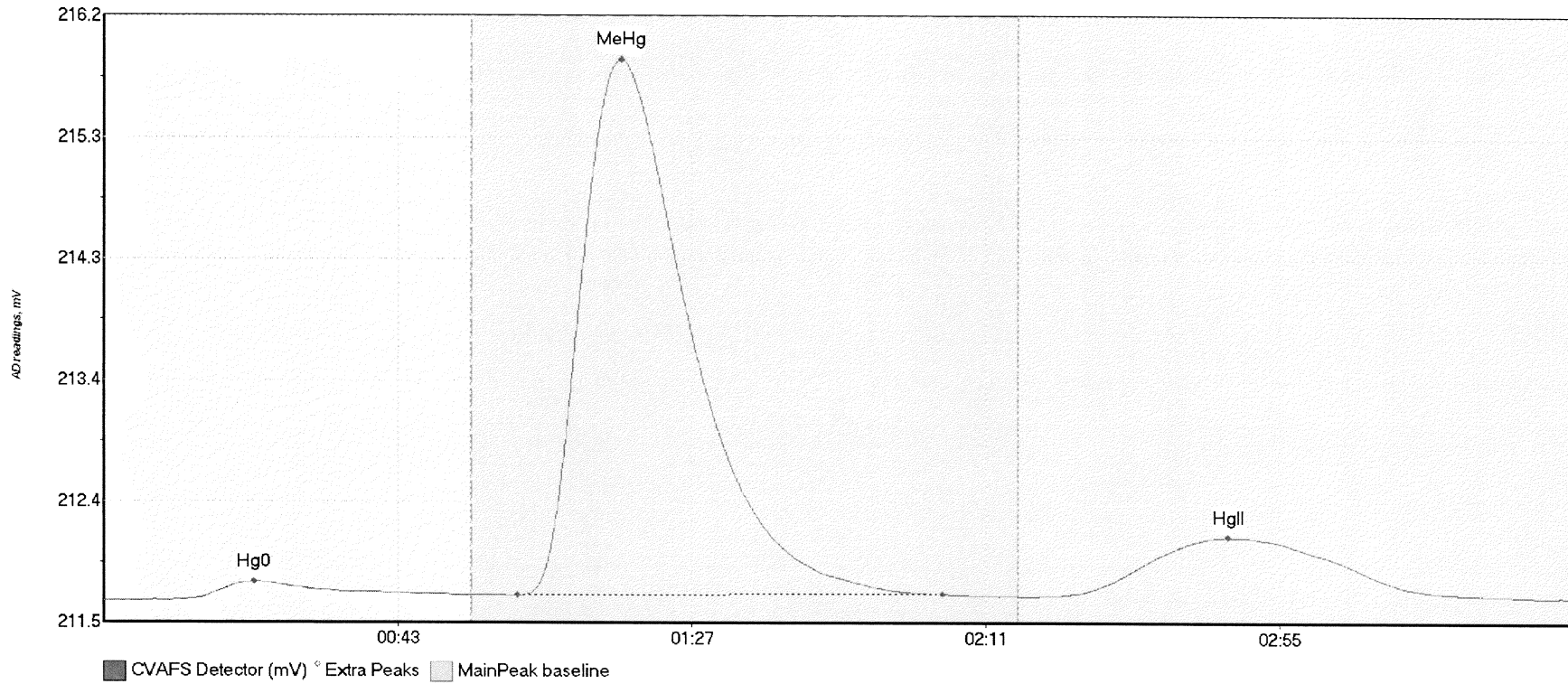
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLK7 H	6.190	8.5	36.5	211.63	211.67	24.2	0.071	OK	211.6297	0.00	0.02	
*F710421-BLK7 H	41.400	143.7	201.6	211.65	211.65	167.6	0.135	OK	211.6297	0.00	0.02	017

#54: F710421-BS1



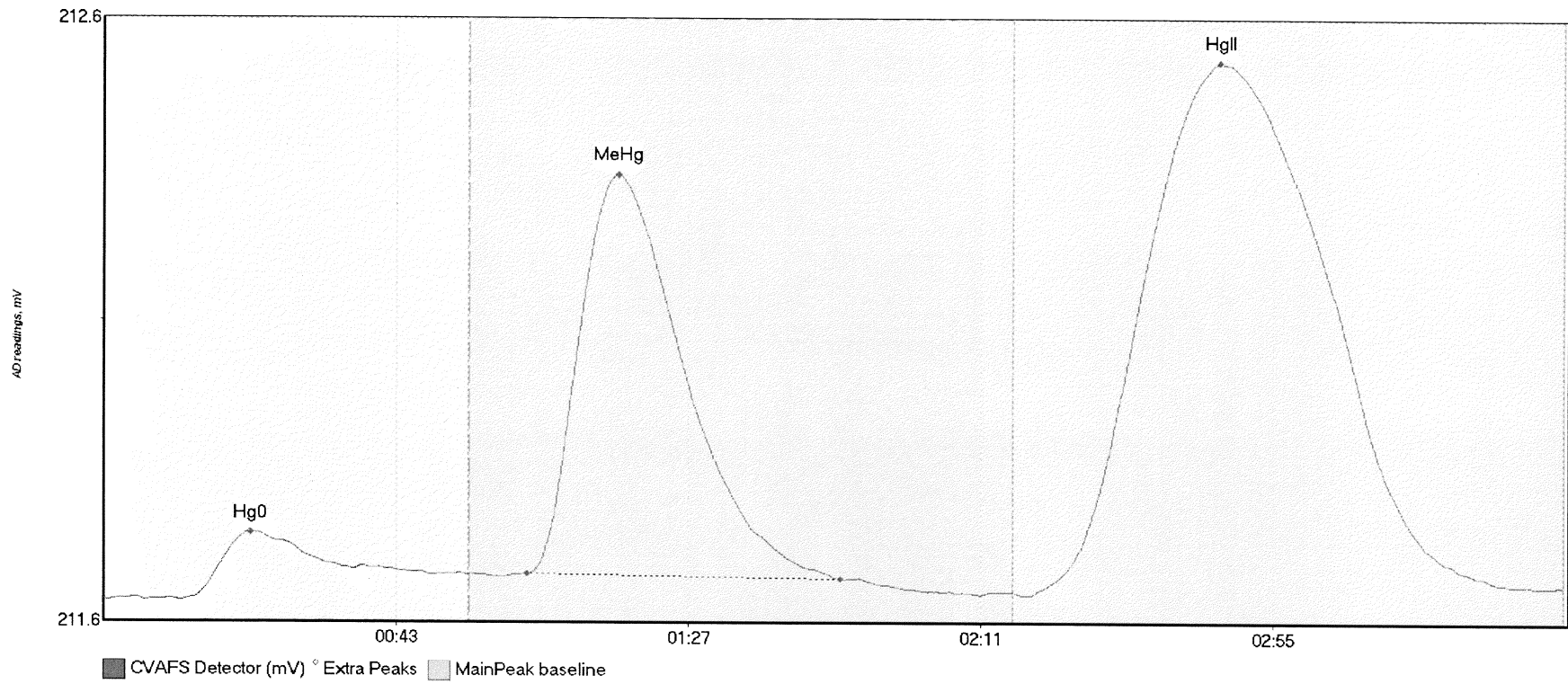
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BS1 Hg0	17.579	11.6	51.2	211.63	211.68	23.4	0.117	OK	211.6401	0.00	0.01	
F710421-BS1 MeH	748.685	62.6	127.2	211.68	211.67	77.8	3.907	OK	211.6401	0.00	0.01	
F710421-BS1 HgI	152.588	143.1	206.4	211.67	211.67	168.9	0.483	OK	211.6401	0.00	0.01	

#55: F710421-BSD1



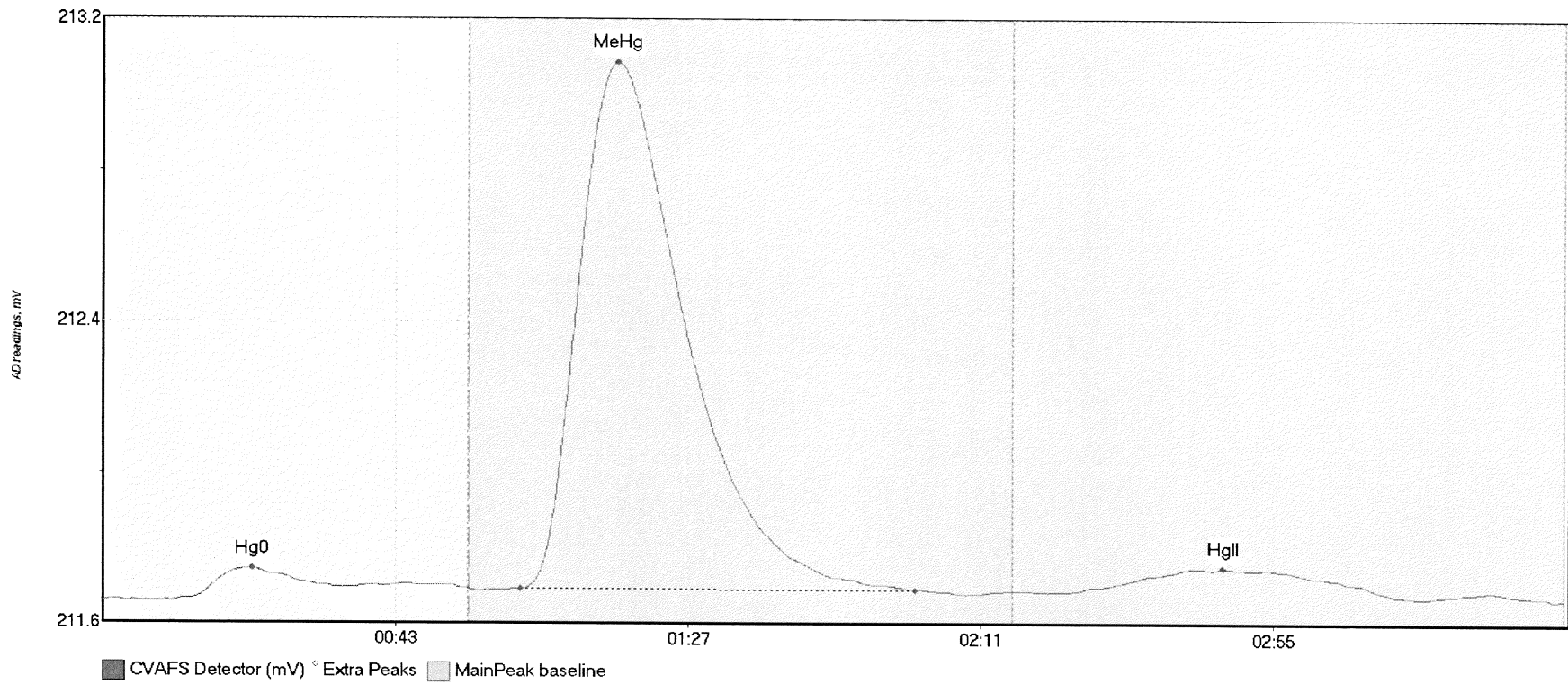
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BSD1 Hg	22.783	4.6	53.2	211.63	211.67	22.5	0.151	OK	211.6252	0.00	0.03	
F710421-BSD1 Me	801.005	61.9	125.6	211.67	211.68	77.4	4.238	OK	211.6252	0.00	0.03	
F710421-BSD1 Hg	145.792	141.4	209.7	211.67	211.66	168.3	0.469	OK	211.6252	0.00	0.03	

#56: F710421-DUP1



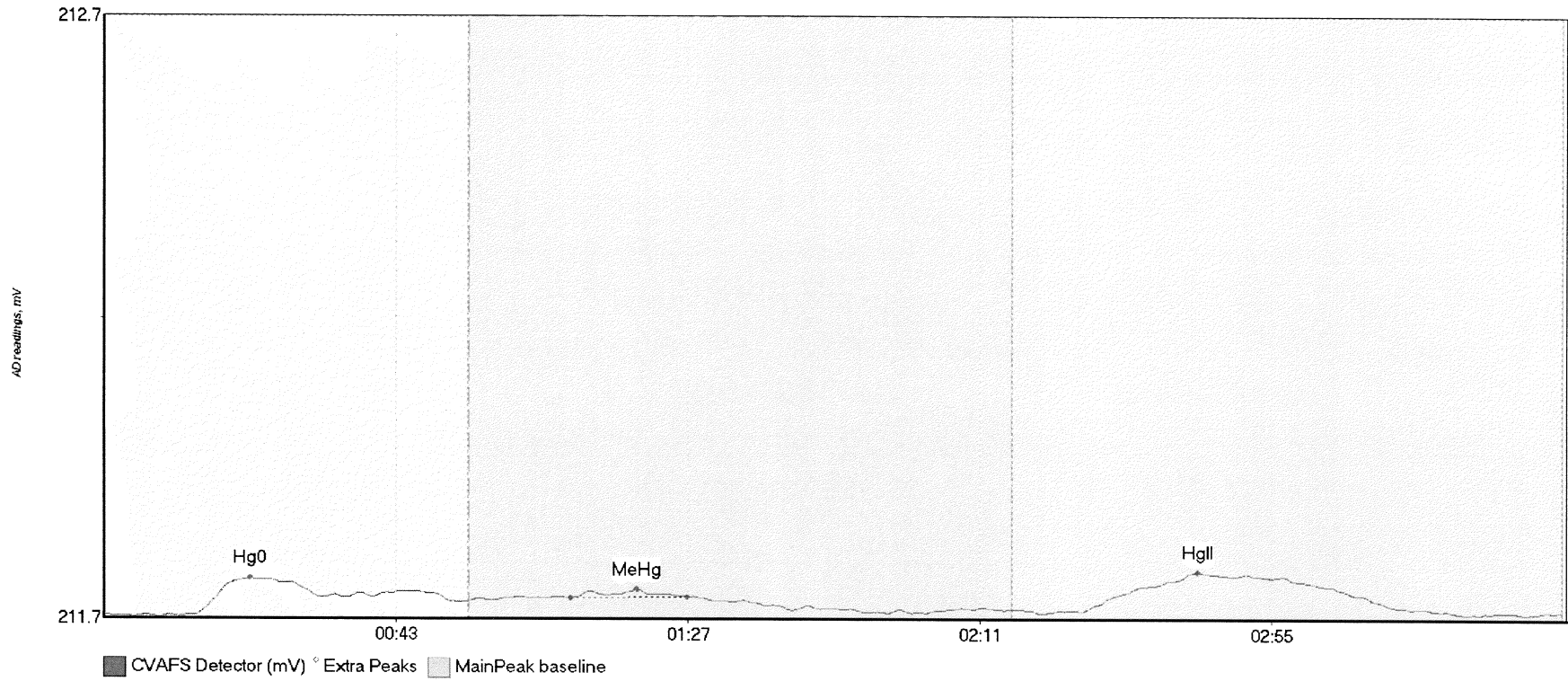
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-DUP1 Hg	15.733	13.3	49.3	211.64	211.68	22.2	0.111	OK	211.6369	0.00	0.02	
F710421-DUP1 Me	123.296	63.7	110.9	211.68	211.67	77.5	0.676	OK	211.6369	0.00	0.02	
F710421-DUP1 Hg	282.212	139.3	216.1	211.65	211.66	168.1	0.903	OK	211.6369	0.00	0.02	

#57: SEQ-CCV4



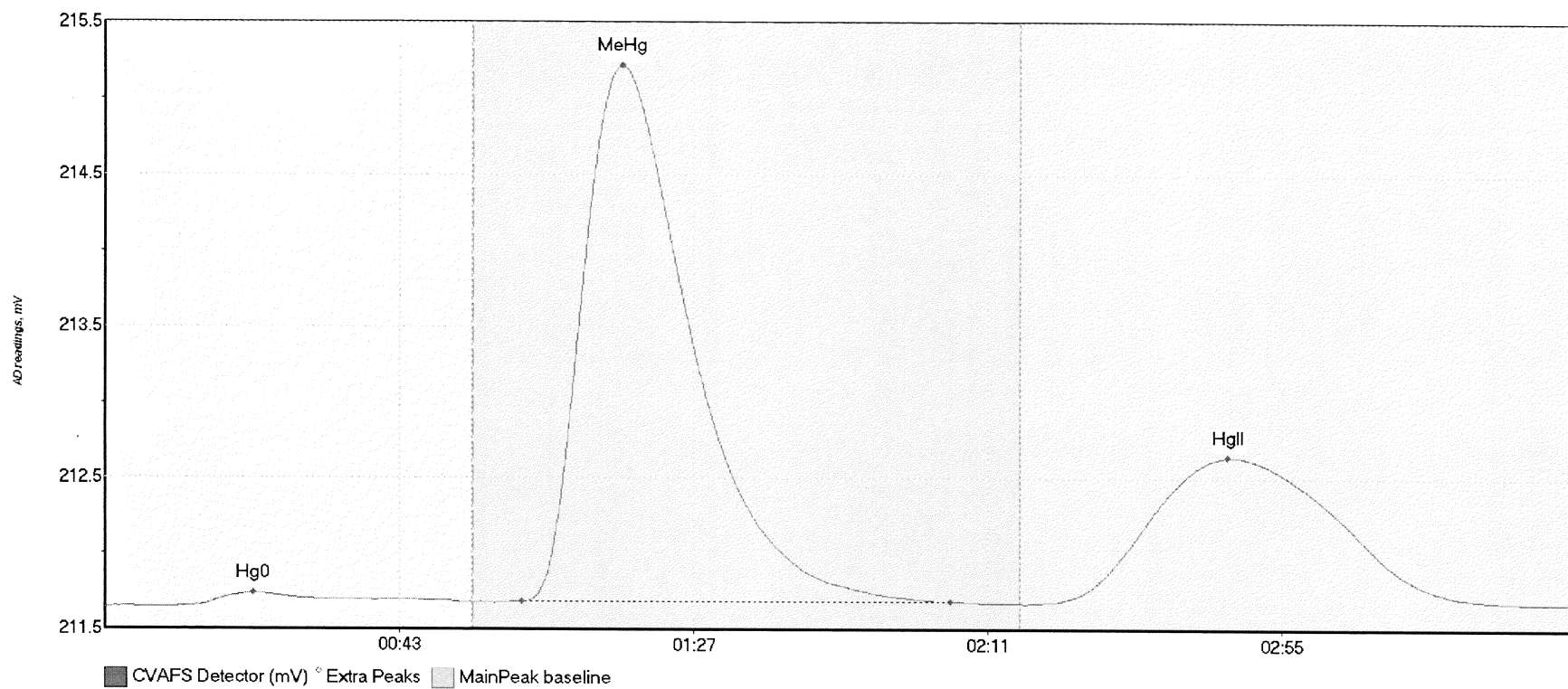
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	12.313	13.0	55.0	211.66	211.68	22.4	0.080	CT	211.6535	0.00	0.00	
SEQ-CCV4 MeHg	259.543	62.7	122.1	211.68	211.68	77.3	1.400	OK	211.6535	0.00	0.00	
SEQ-CCV4 HgII	20.361	146.1	194.3	211.68	211.67	168.5	0.063	OK	211.6535	0.00	0.00	

#58: SEQ-CCB4



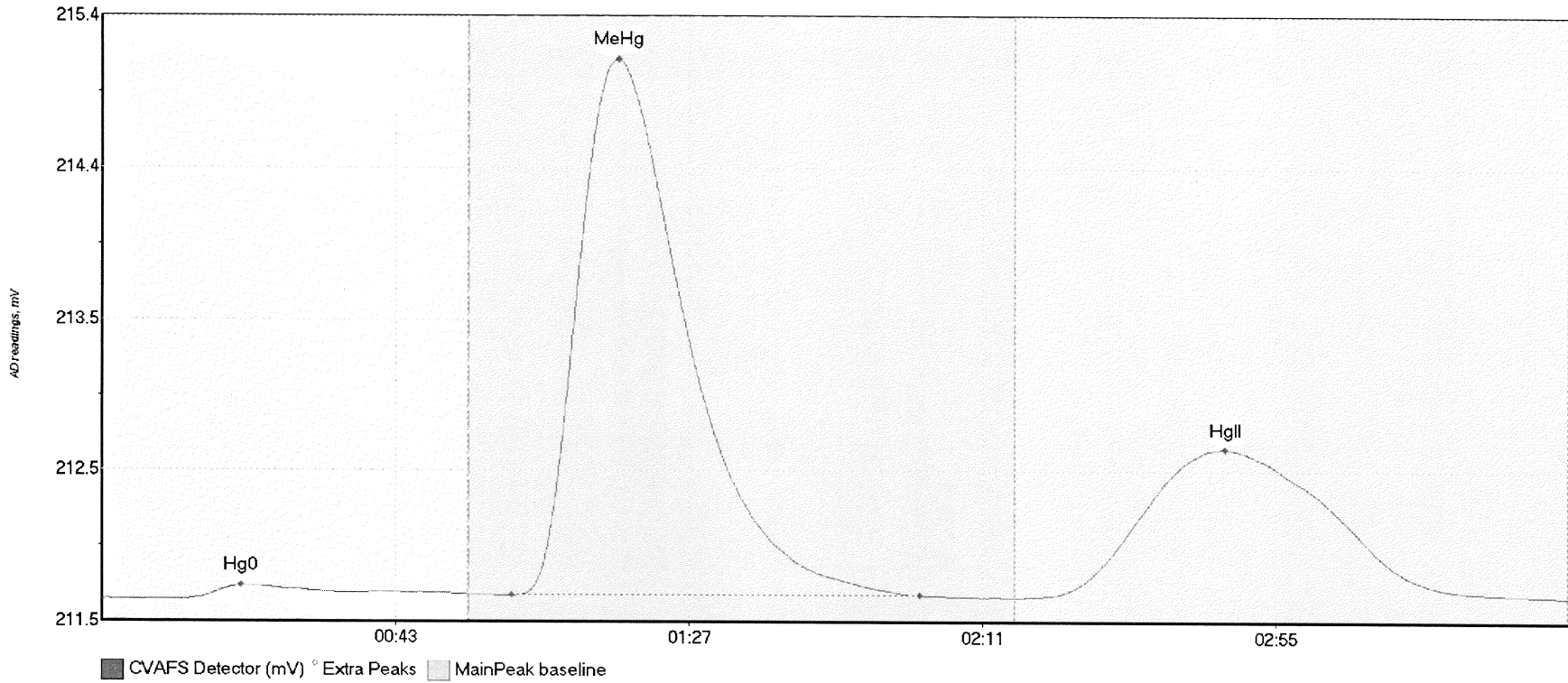
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	11.146	13.8	53.7	211.66	211.68	22.0	0.060	OK	211.6598	0.00	0.01	
SEQ-CCB4 MeHg	1.207	70.3	87.9	211.69	211.69	80.3	0.014	OK	211.6598	0.00	0.01	
SEQ-CCB4 HgII	18.040	147.5	194.5	211.67	211.67	164.9	0.065	OK	211.6598	0.00	0.01	

#59: F710421-MS1



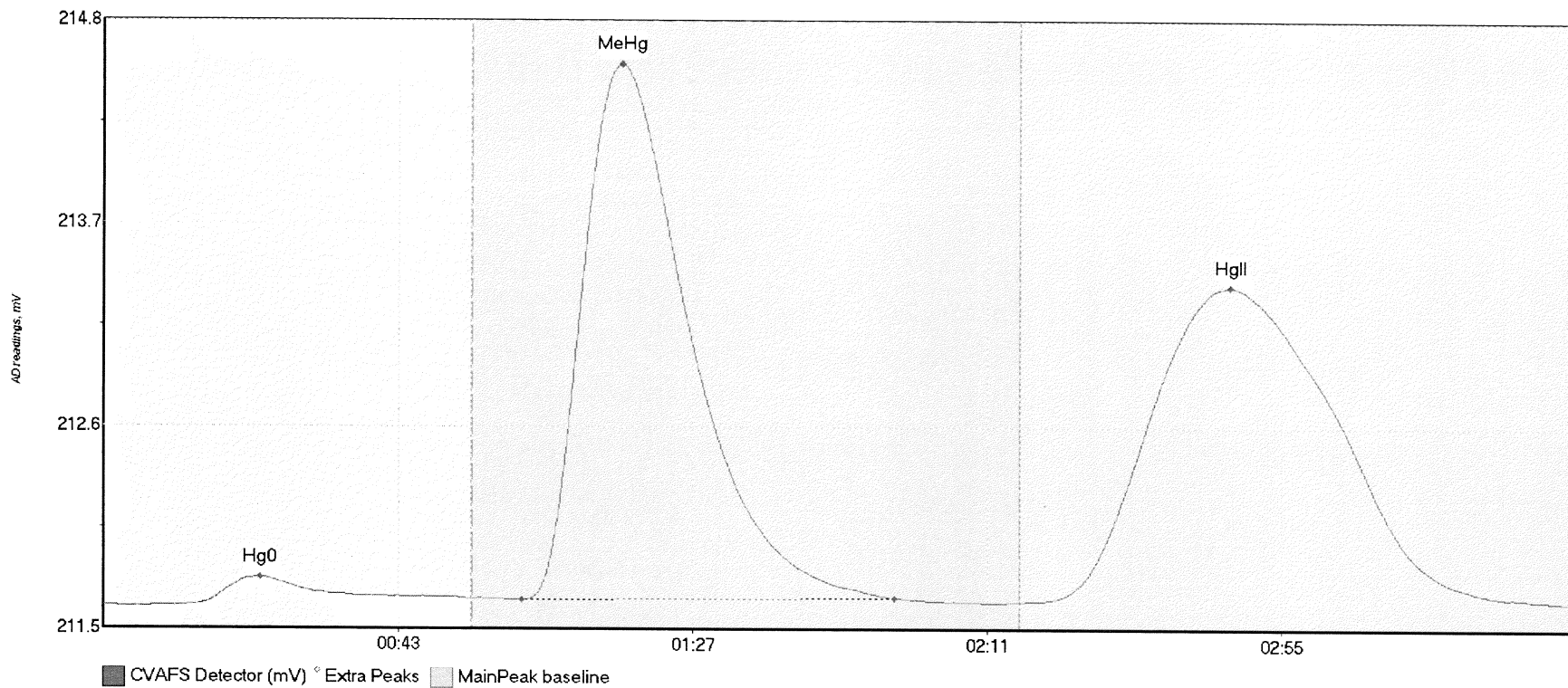
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MS1 Hg0	14.105	12.0	53.4	211.66	211.69	22.2	0.087	OK	211.6589	0.00	0.02	
F710421-MS1 MeH	661.356	62.3	126.4	211.69	211.69	77.3	3.520	OK	211.6589	0.00	0.02	
F710421-MS1 HgI	305.834	137.7	212.4	211.68	211.68	167.9	0.970	OK	211.6589	0.00	0.02	

#60: F710421-MSD1



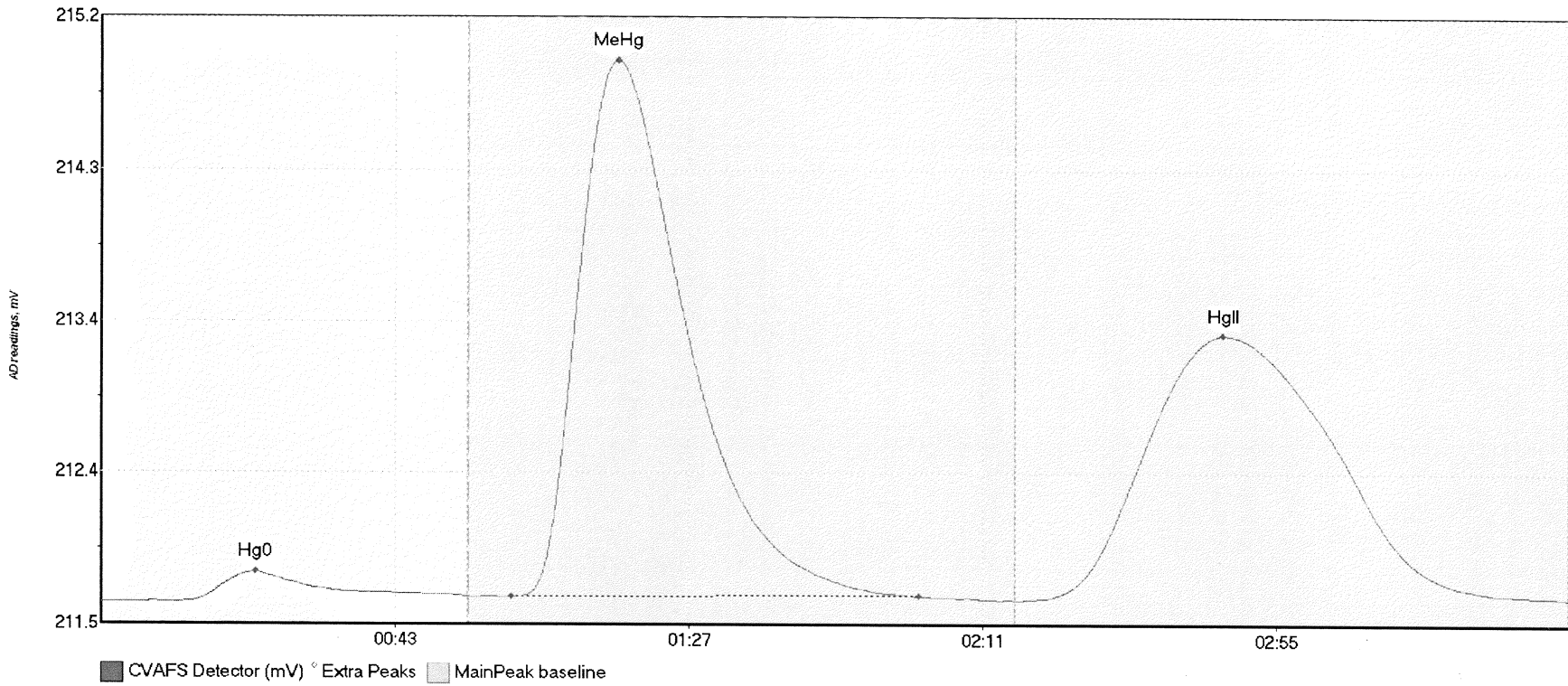
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MSD1 Hg	15.163	11.9	54.9	211.65	211.69	20.8	0.089	OK	211.6596	0.00	0.02	
F710421-MSD1 Me	645.432	61.5	122.6	211.68	211.68	77.4	3.437	OK	211.6596	0.00	0.02	017
F710421-MSD1 Hg	302.804	137.6	219.5	211.67	211.67	168.4	0.957	OK	211.6596	0.00	0.02	

#61: F710421-MS2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MS2 Hg0	21.643	10.7	54.9	211.65	211.69	23.4	0.152	OK	211.6515	0.00	0.02	
F710421-MS2 MeH	526.770	62.4	118.2	211.68	211.69	77.4	2.854	OK	211.6515	0.00	0.02	
F710421-MS2 HgI	525.813	140.1	216.9	211.68	211.68	168.3	1.678	OK	211.6515	0.00	0.02	

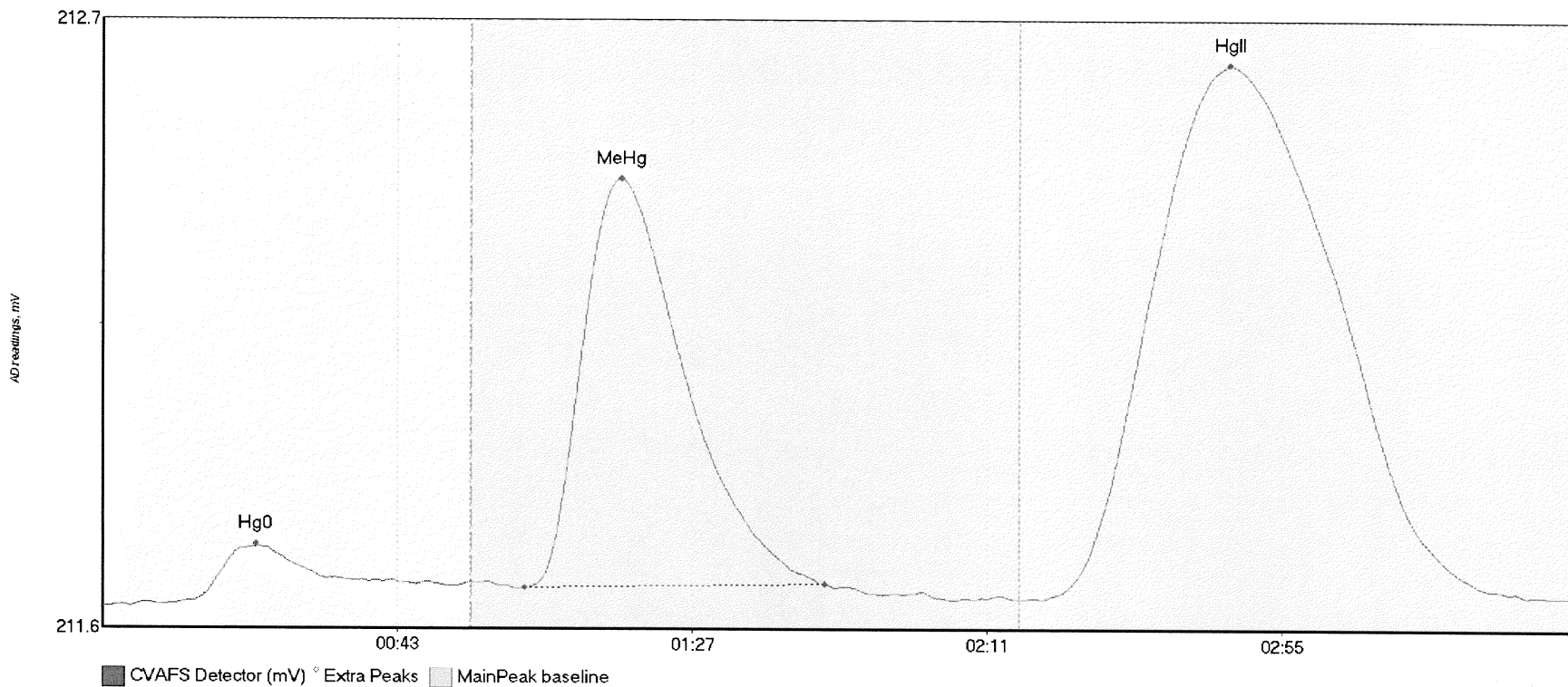
#62: F710421-MSD2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MSD2 Hg	26.881	12.1	55.0	211.65	211.68	23.1	0.180	CT	211.6442	0.00	0.03	
F710421-MSD2 Me	605.330	61.4	122.4	211.67	211.68	77.4	3.256	OK	211.6442	0.00	0.03	
F710421-MSD2 Hg	508.431	137.4	219.6	211.66	211.67	168.0	1.615	OK	211.6442	0.00	0.03	

017

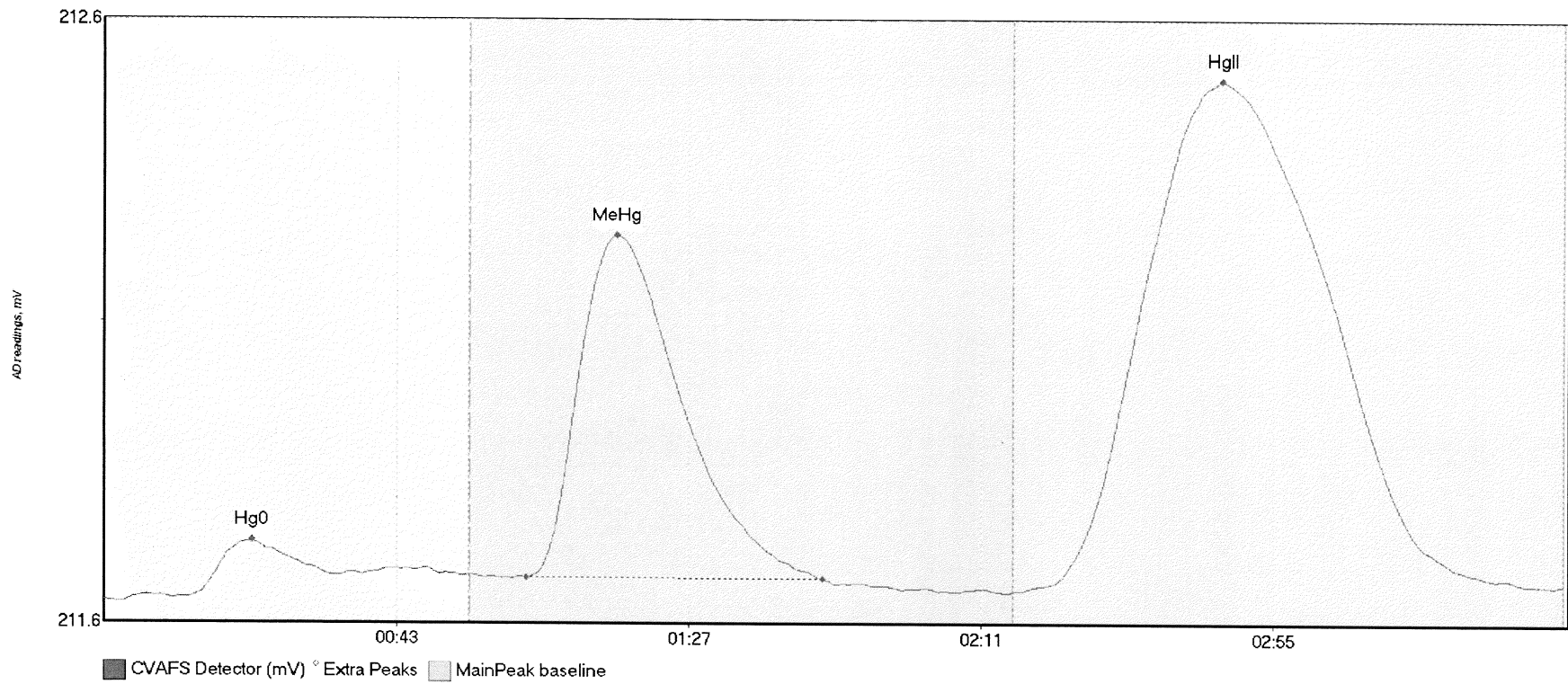
#63: 1708118-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-01 Hg0	14.445	9.5	51.7	211.64	211.68	22.9	0.105	OK	211.6387	0.00	0.02	
1708118-01 MeHg	129.027	63.0	107.8	211.67	211.68	77.4	0.737	OK	211.6387	0.00	0.02	
1708118-01 HgII	298.983	140.3	216.3	211.65	211.66	168.2	0.964	OK	211.6387	0.00	0.02	

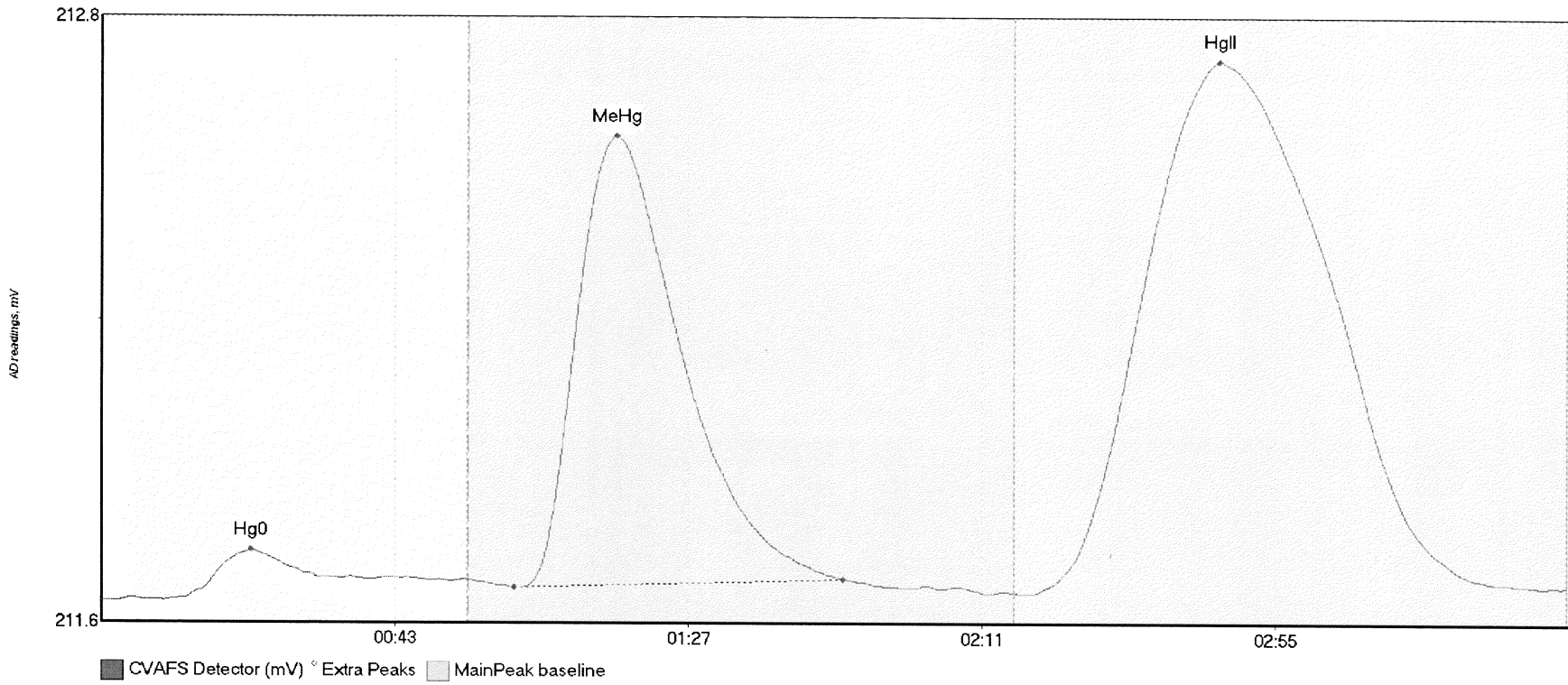
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#64: 1708118-02



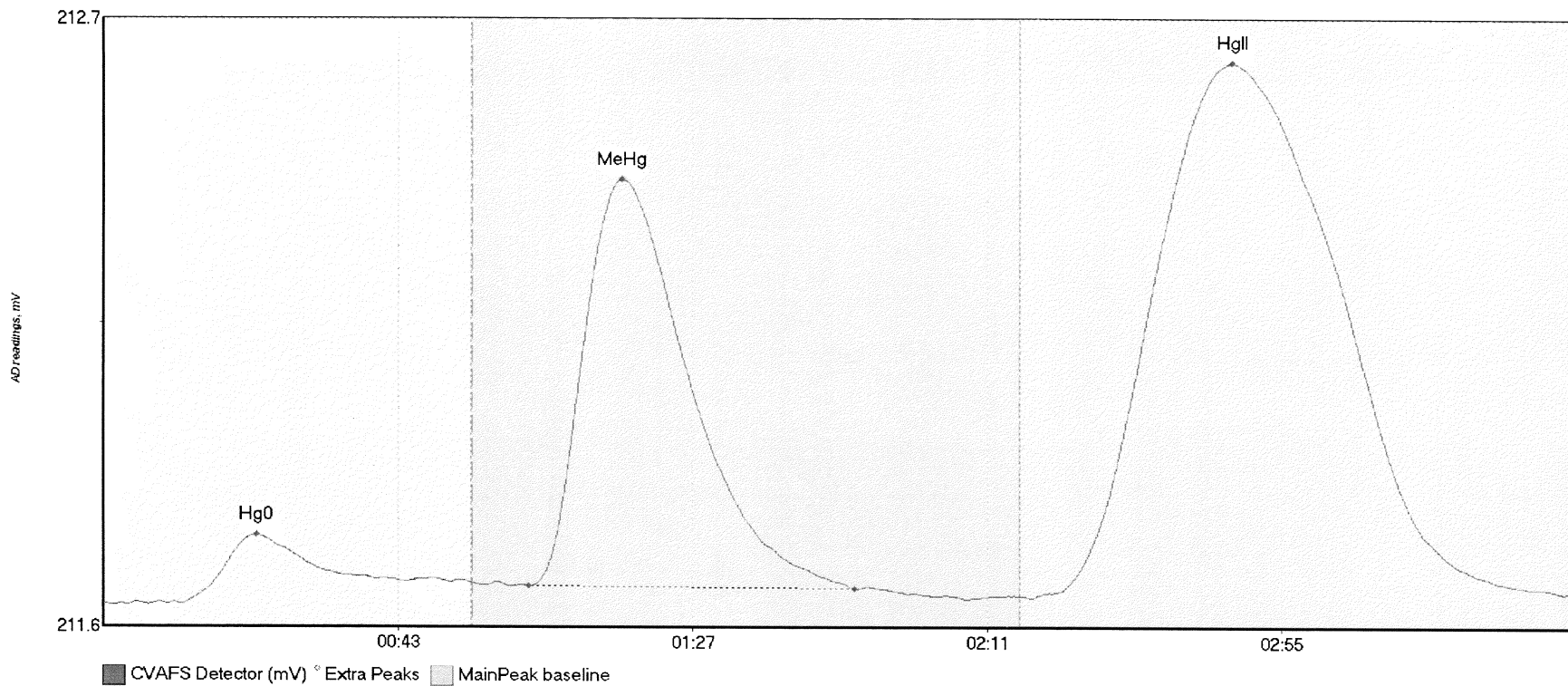
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-02 Hg0	13.315	10.5	53.9	211.63	211.67	22.3	0.095	OK	211.6255	0.00	0.03	
1708118-02 MeHg	100.642	63.6	108.2	211.66	211.66	77.2	0.567	OK	211.6255	0.00	0.03	
1708118-02 HgII	264.955	138.3	218.1	211.64	211.65	168.3	0.847	OK	211.6255	0.00	0.03	

#65: 1708118-03



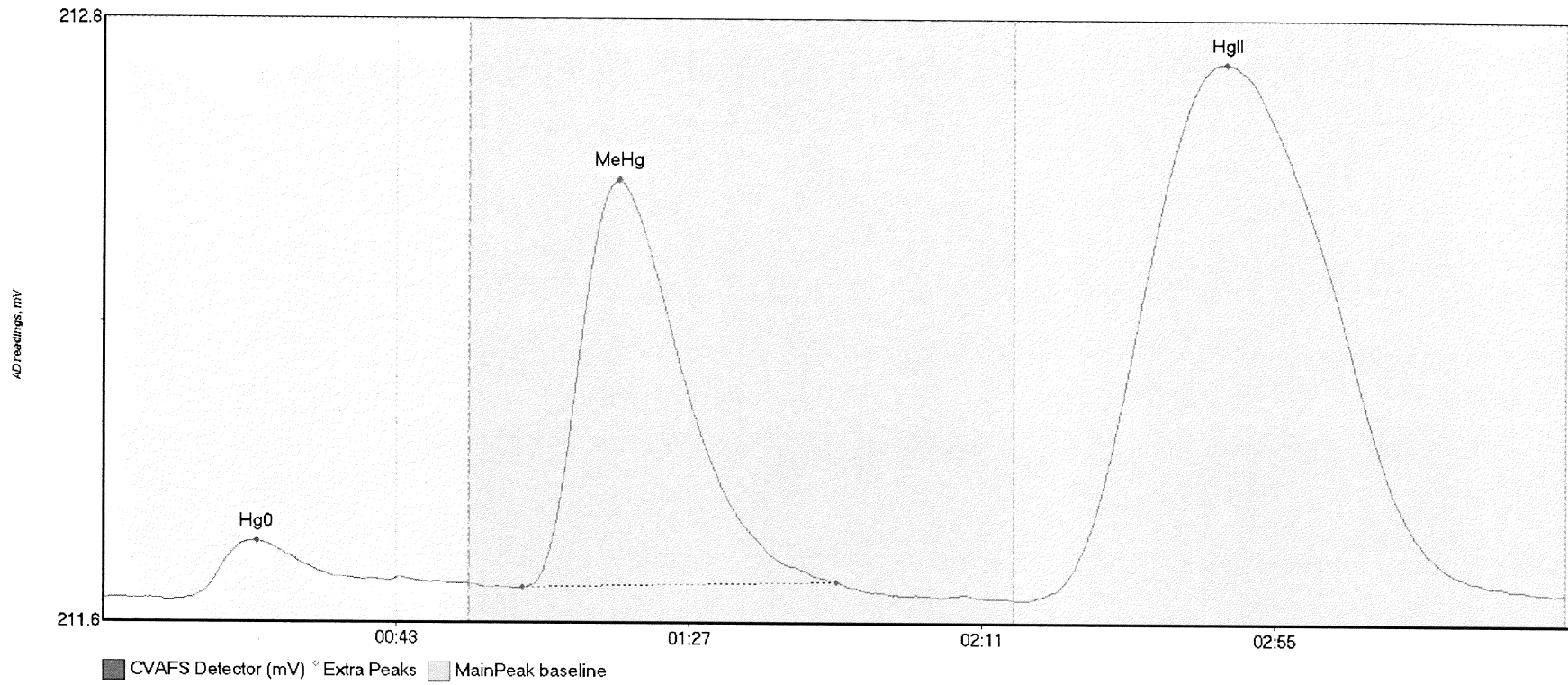
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-03 Hg0	13.022	11.0	52.3	211.62	211.65	22.4	0.096	OK	211.6130	0.00	0.03	
1708118-03 MeHg	161.906	61.9	111.1	211.64	211.66	77.3	0.900	OK	211.6130	0.00	0.03	017
1708118-03 HgII	330.356	139.9	216.3	211.63	211.64	167.6	1.059	OK	211.6130	0.00	0.03	

#66: 1708118-04



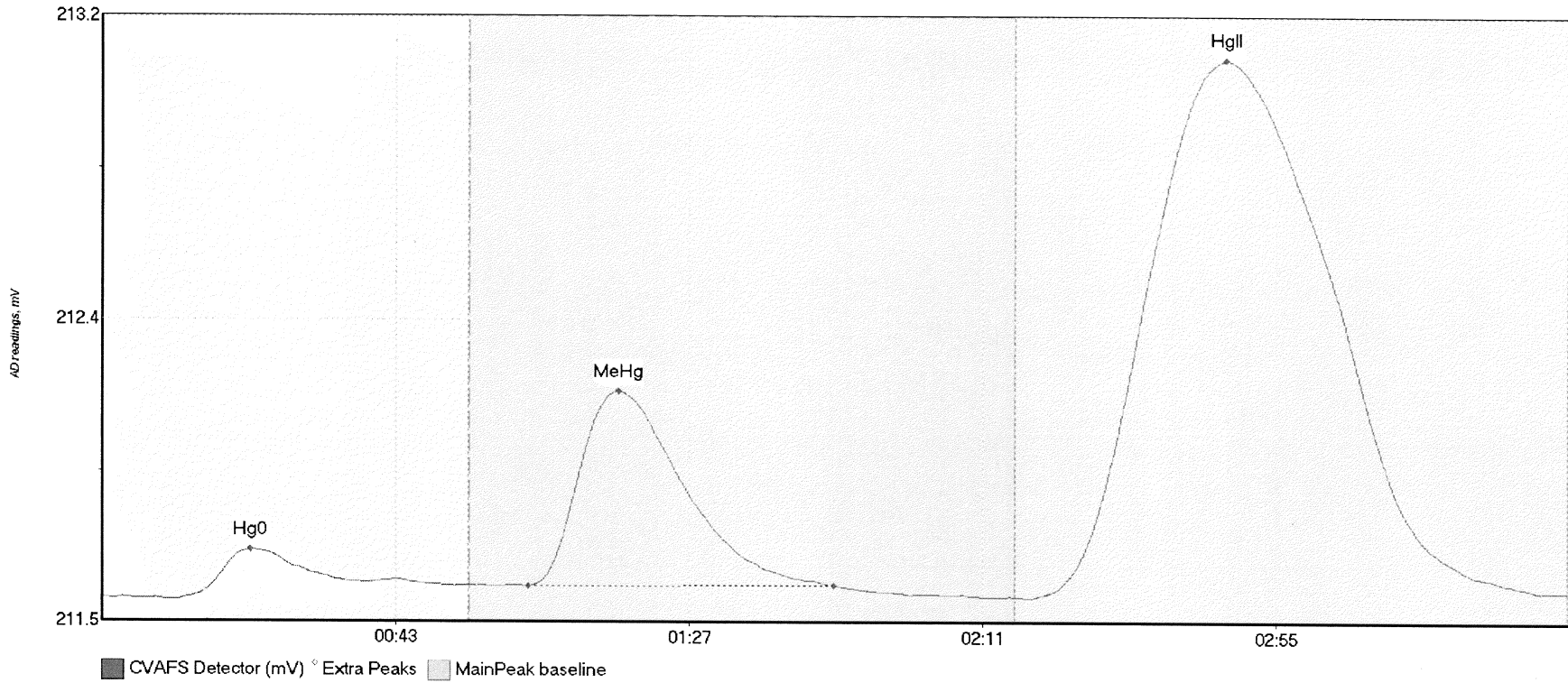
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-04 Hg0	18.467	11.6	55.0	211.61	211.65	22.9	0.127	CT	211.6123	0.00	0.02	
1708118-04 MeHg	136.807	63.5	112.2	211.64	211.64	77.4	0.747	OK	211.6123	0.00	0.02	
1708118-04 HgII	309.134	138.6	219.8	211.62	211.63	168.6	0.984	CT	211.6123	0.00	0.02	

#67: 1708118-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-05 Hg0	17.461	11.1	55.0	211.61	211.64	23.0	0.118	CT	211.6112	0.00	0.01	
1708118-05 MeHg	144.683	63.0	110.2	211.63	211.64	77.5	0.816	OK	211.6112	0.00	0.01	
1708118-05 HgII	339.111	138.9	218.1	211.61	211.62	168.8	1.075	OK	211.6112	0.00	0.01	

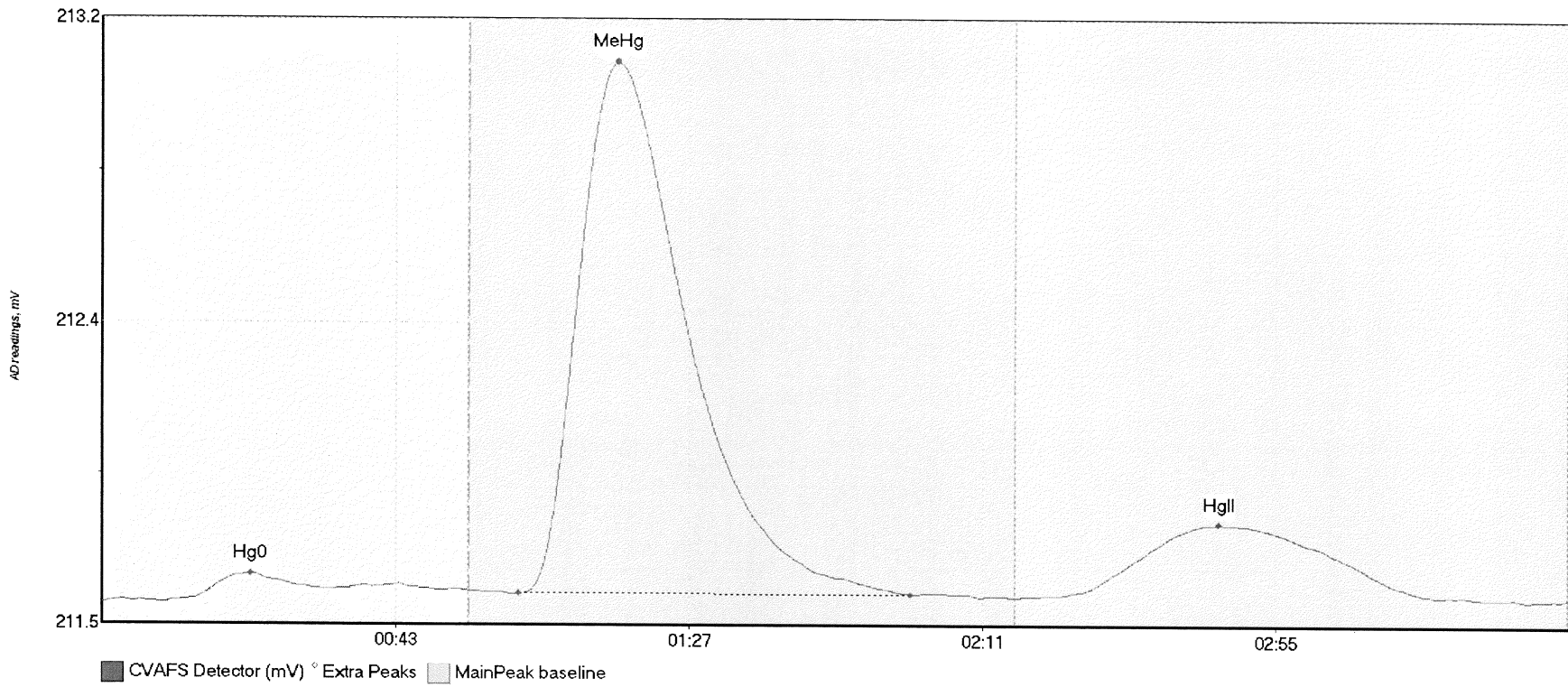
#68: 1708240-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-01 Hg0	19.749	11.2	52.8	211.60	211.64	22.3	0.137	OK	211.6101	0.00	0.02	
1708240-01 MeHg	96.482	63.9	109.7	211.64	211.64	77.5	0.540	OK	211.6101	0.00	0.02	
1708240-01 HgII	462.942	139.1	215.7	211.61	211.63	168.5	1.486	OK	211.6101	0.00	0.02	

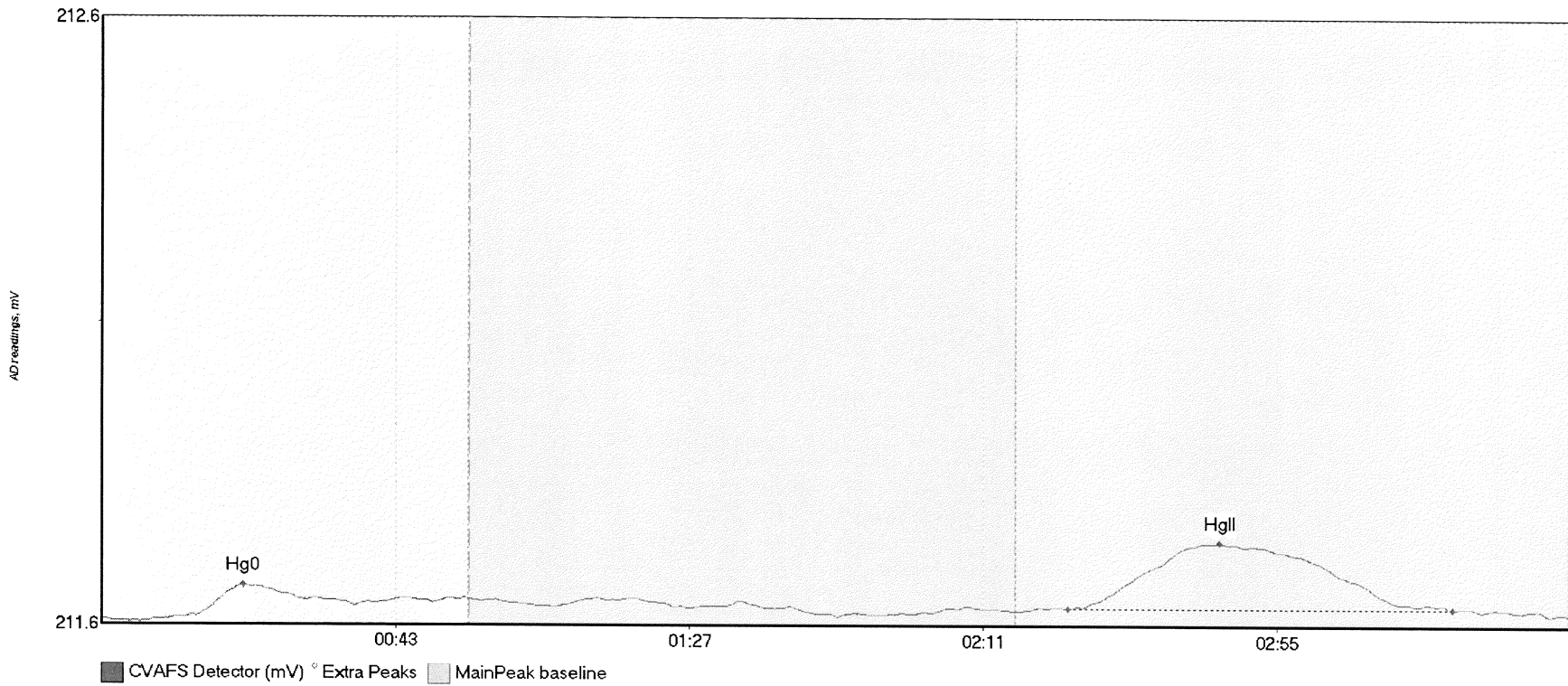
017

#69: SEQ-CCV5



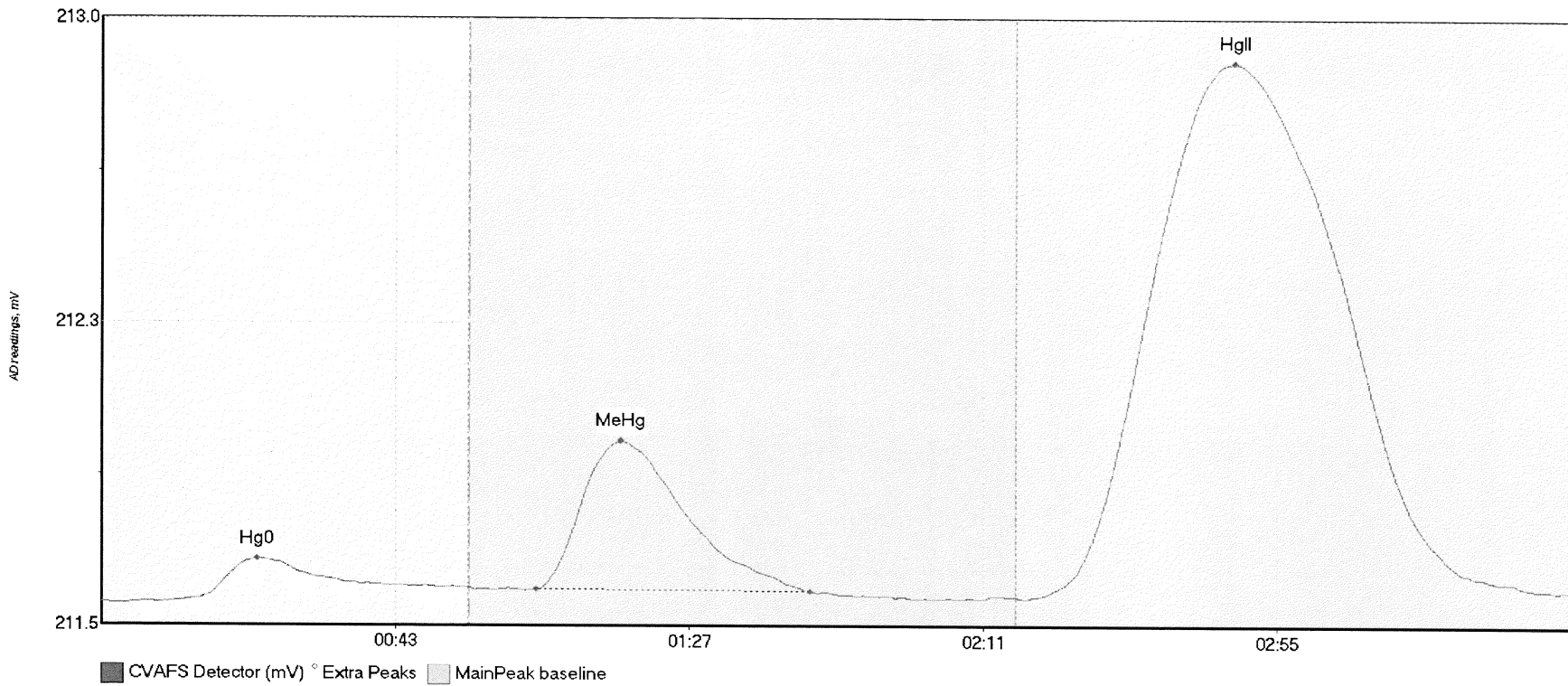
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	10.783	11.3	55.0	211.60	211.63	22.3	0.070	CT	211.6004	0.00	0.01	
SEQ-CCV5 MeHg	266.989	62.4	121.2	211.62	211.62	77.3	1.423	OK	211.6004	0.00	0.01	017
SEQ-CCV5 HgII	59.163	142.9	200.3	211.62	211.62	167.5	0.192	OK	211.6004	0.00	0.01	

#70: SEQ-CCB5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	5.435	12.7	37.9	211.60	211.62	21.3	0.051	OK	211.5974	0.00	0.01	
SEQ-CCB5 HgII	32.870	144.8	202.4	211.62	211.62	167.4	0.109	OK	211.5974	0.00	0.01	017

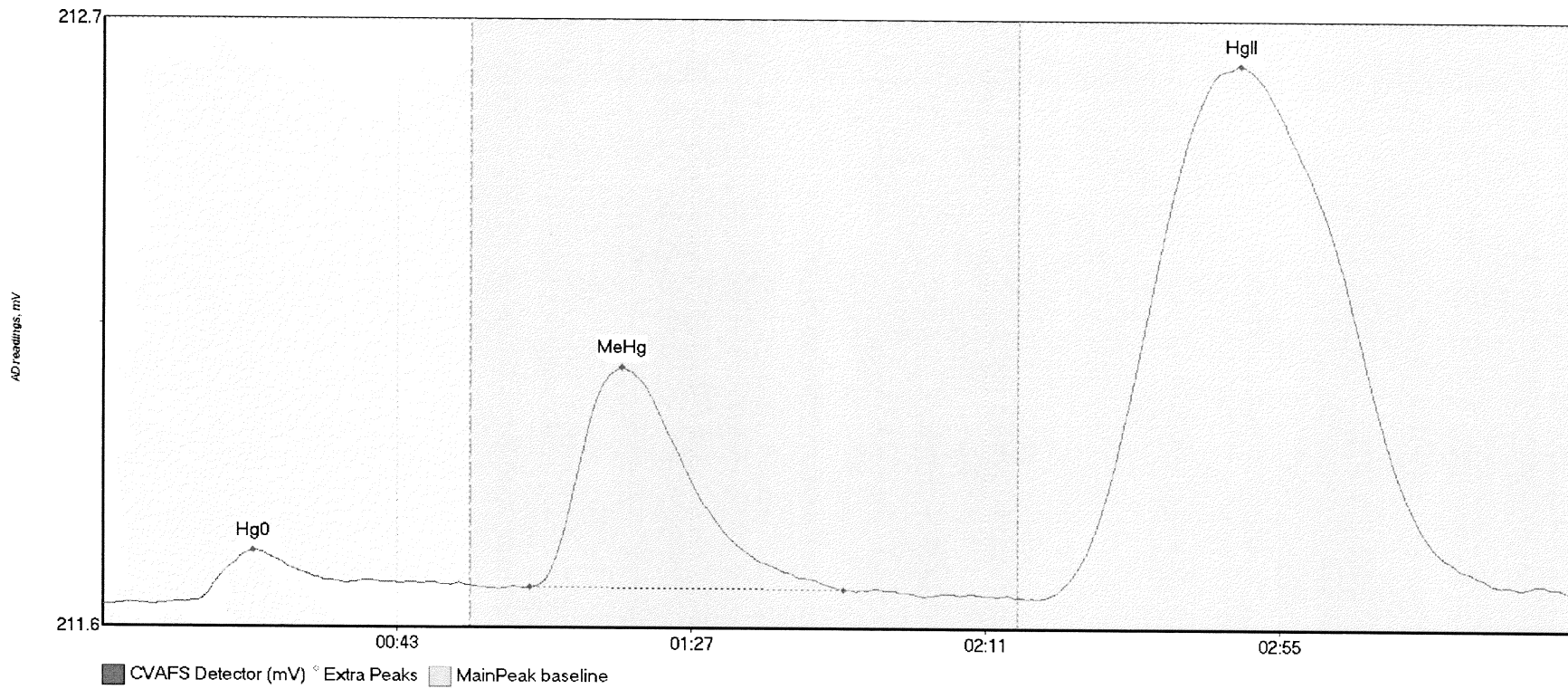
#71: 1708240-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-02 Hg0	14.961	9.9	55.0	211.61	211.64	23.3	0.103	CT	211.6051	0.00	0.03	
1708240-02 MeHg	63.878	65.0	106.0	211.64	211.63	77.8	0.357	OK	211.6051	0.00	0.03	
1708240-02 HgII	408.347	140.1	218.0	211.62	211.63	169.6	1.286	OK	211.6051	0.00	0.03	

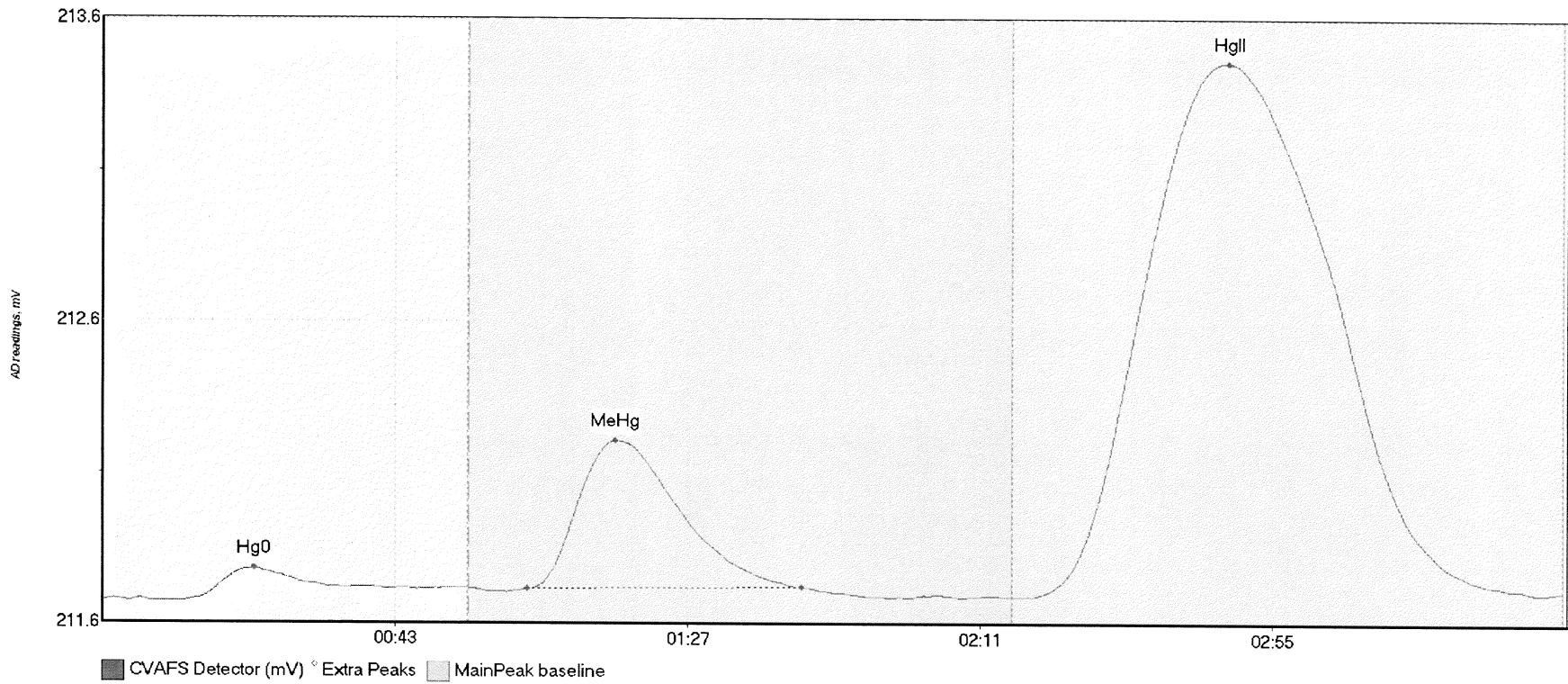
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#72: 1708240-03



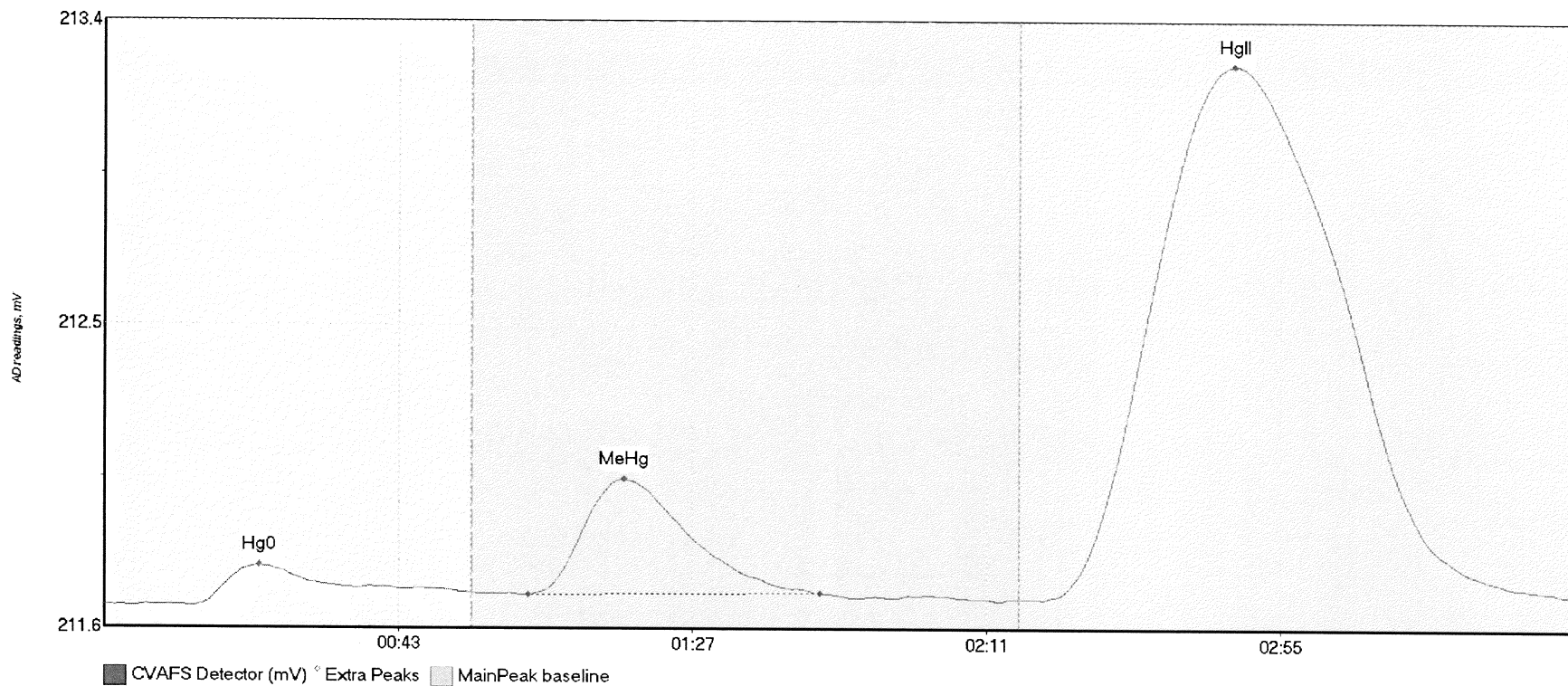
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-03 Hg0	12.751	12.3	54.8	211.63	211.66	22.5	0.092	OK	211.6216	0.00	0.03	
1708240-03 MeHg	73.318	63.8	110.8	211.65	211.65	77.6	0.393	OK	211.6216	0.00	0.03	
1708240-03 HgII	306.070	140.5	219.8	211.64	211.65	170.0	0.956	CT	211.6216	0.00	0.03	

#73: 1708240-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-04 Hg0	13.215	12.2	47.2	211.64	211.68	22.9	0.108	OK	211.6406	0.00	0.03	
1708240-04 MeHg	88.064	63.8	105.1	211.68	211.68	77.2	0.507	OK	211.6406	0.00	0.03	
1708240-04 HgII	578.627	140.0	217.2	211.65	211.66	169.4	1.821	OK	211.6406	0.00	0.03	

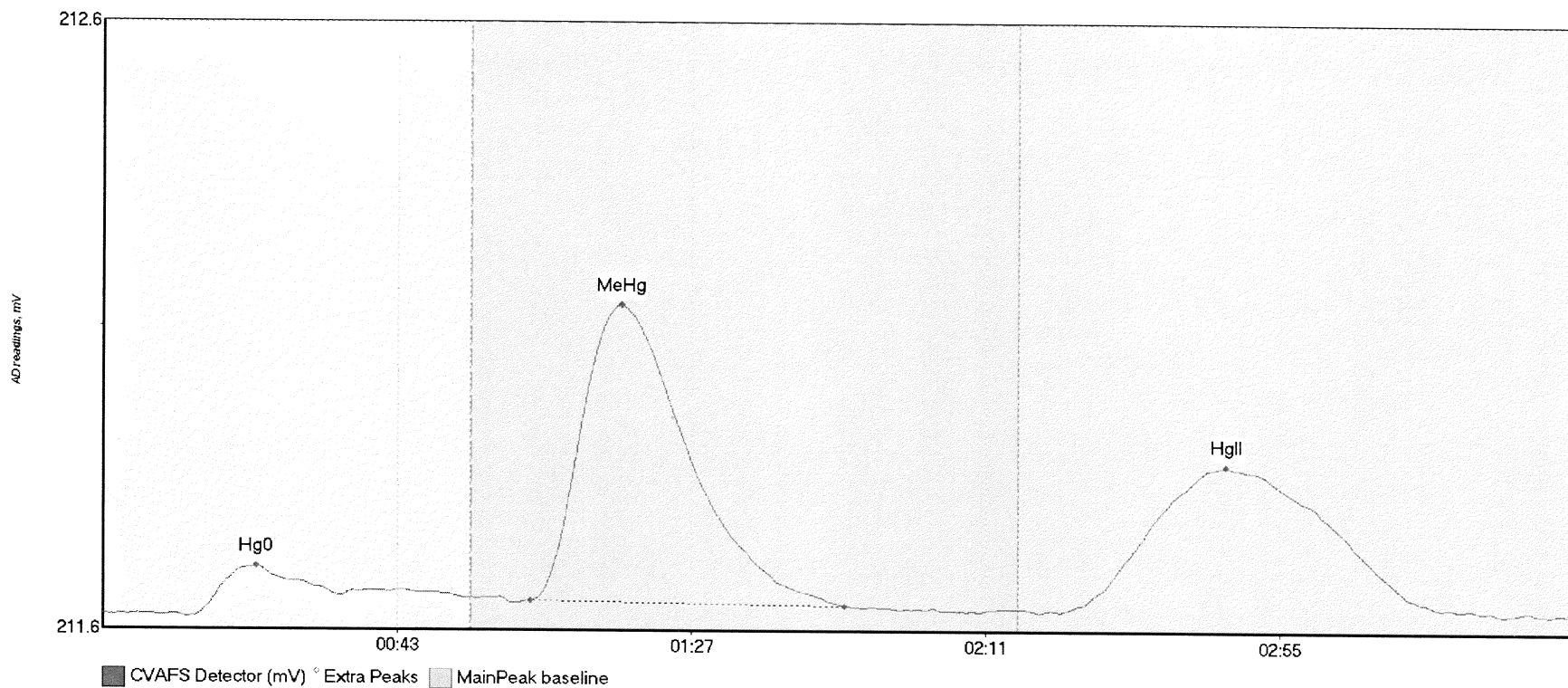
#74: 1708240-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-05 Hg0	18.780	12.9	55.0	211.64	211.69	23.1	0.121	CT	211.6465	0.00	0.03	
1708240-05 MeHg	61.495	63.4	107.0	211.68	211.68	77.7	0.342	OK	211.6465	0.00	0.03	
1708240-05 HgII	501.249	140.3	219.8	211.66	211.68	169.0	1.583	CT	211.6465	0.00	0.03	

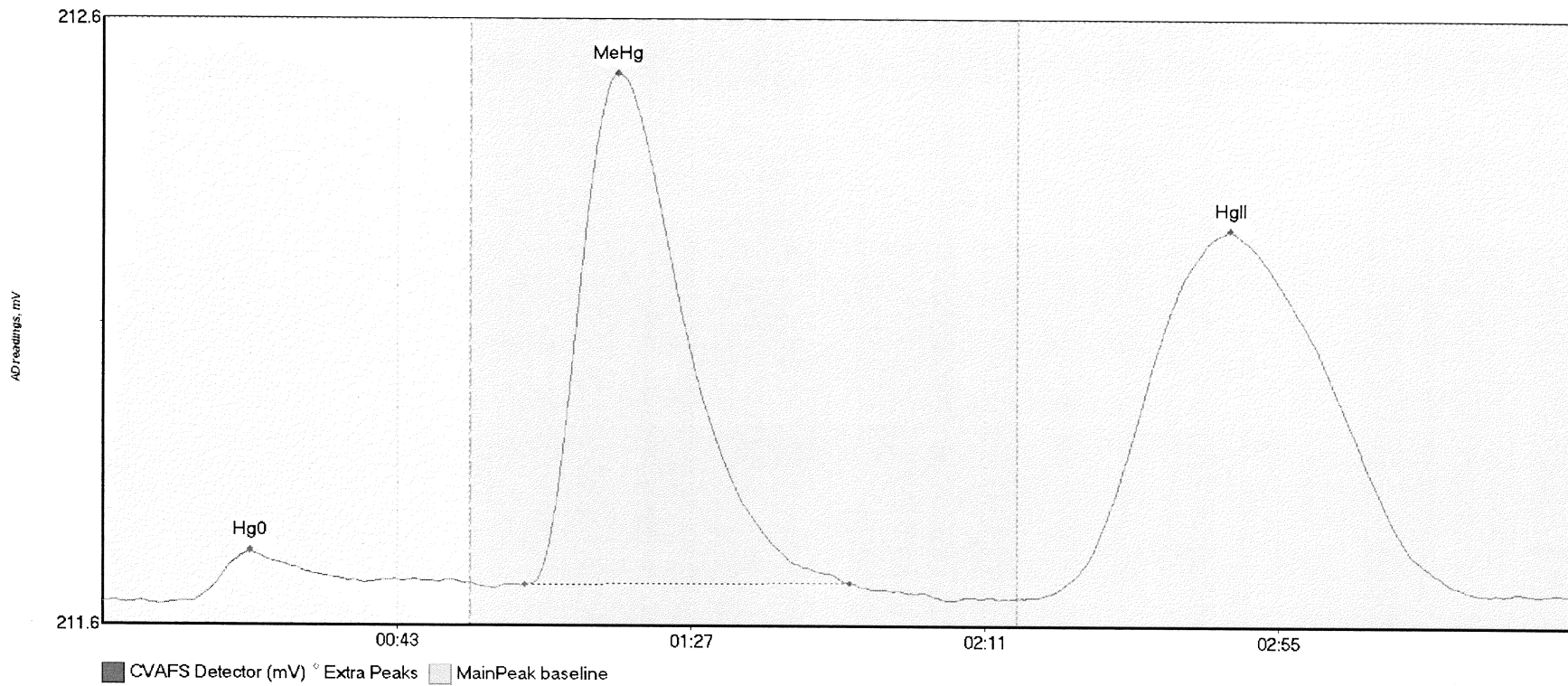
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#75: 1708241-01



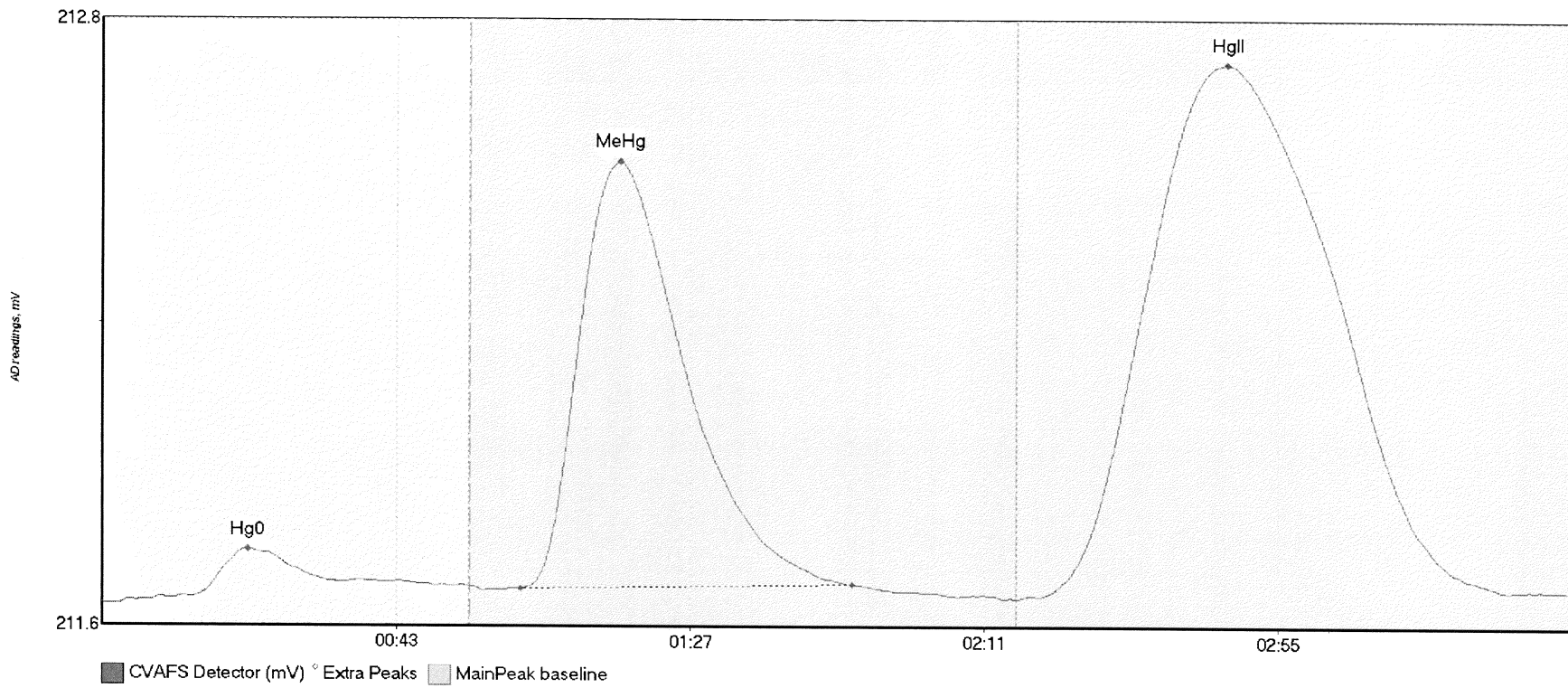
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-01 Hg0	12.979	12.6	54.1	211.65	211.69	22.9	0.085	OK	211.6581	0.00	0.00	
1708241-01 MeHg	89.653	63.8	110.9	211.68	211.67	77.5	0.487	OK	211.6581	0.00	0.00	
1708241-01 HgII	70.497	143.3	200.2	211.67	211.67	167.9	0.240	OK	211.6581	0.00	0.00	

#76: 1708241-02



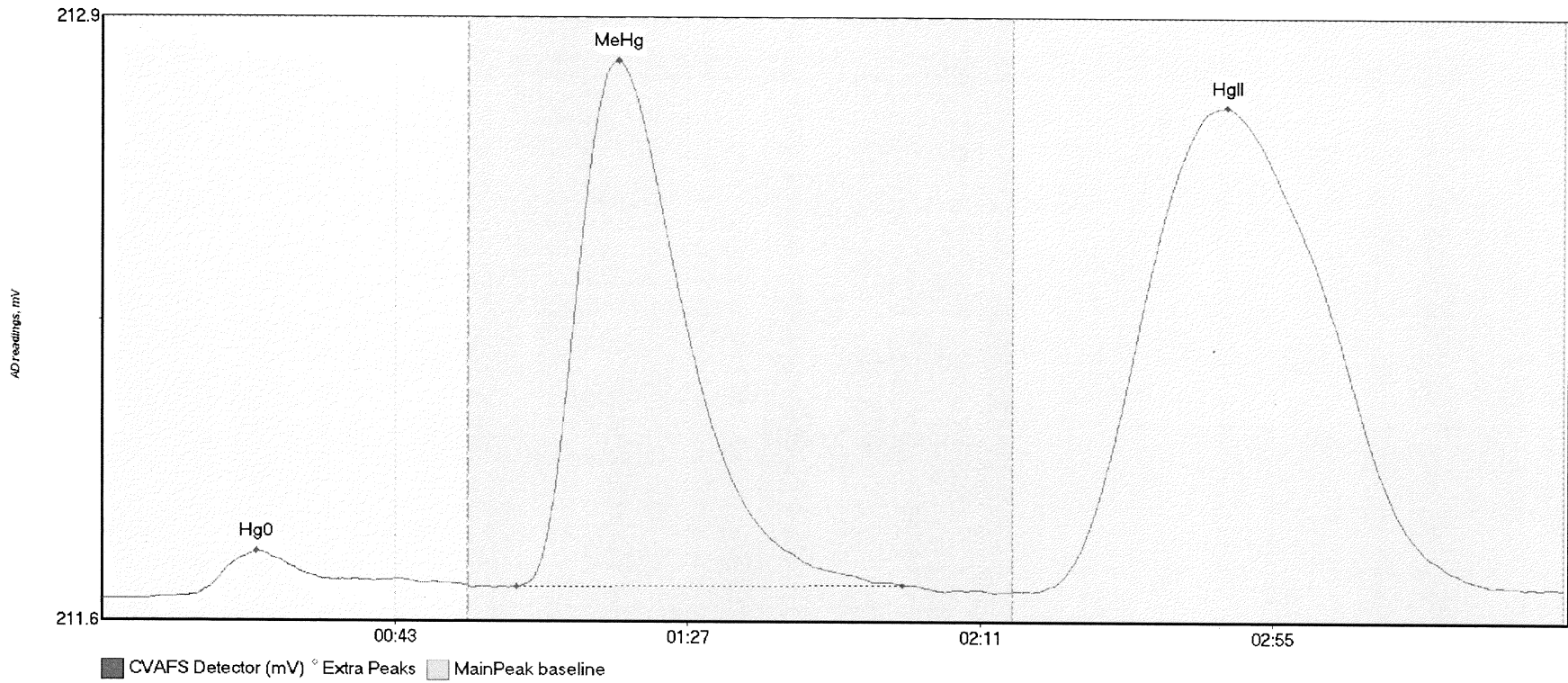
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-02 Hg0	11.598	12.9	54.1	211.66	211.69	22.0	0.082	OK	211.6556	0.00	0.01	
1708241-02 MeHg	151.153	63.1	111.7	211.68	211.69	77.0	0.844	OK	211.6556	0.00	0.01	
1708241-02 HgII	185.532	139.9	214.8	211.66	211.67	168.7	0.606	OK	211.6556	0.00	0.01	

#77: 1708241-03



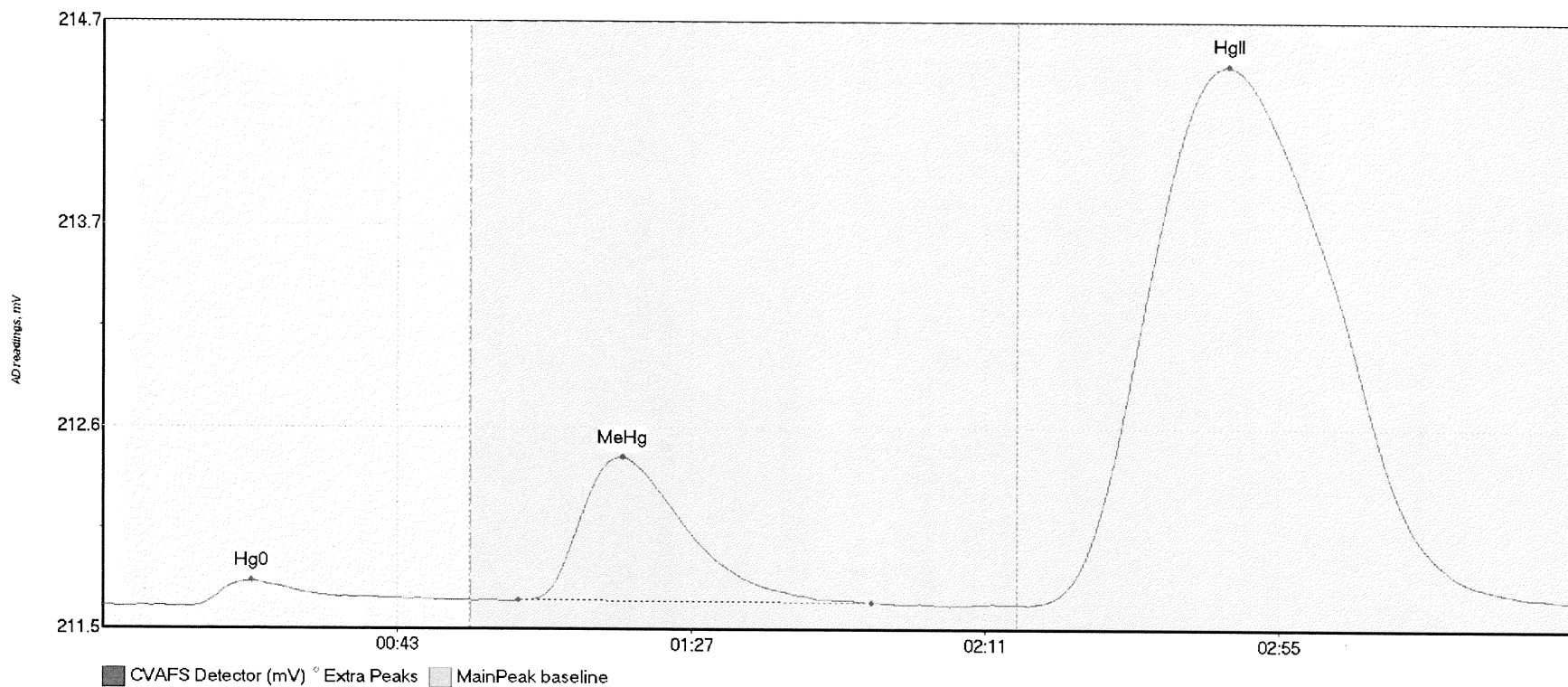
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-03 Hg0	15.324	2.1	55.0	211.65	211.68	21.8	0.108	CT	211.6468	0.00	0.03	
1708241-03 MeHg	152.415	62.6	112.3	211.68	211.68	77.4	0.838	OK	211.6468	0.00	0.03	
1708241-03 HgII	328.844	140.2	219.8	211.66	211.67	168.3	1.048	CT	211.6468	0.00	0.03	017

#78: 1708241-04



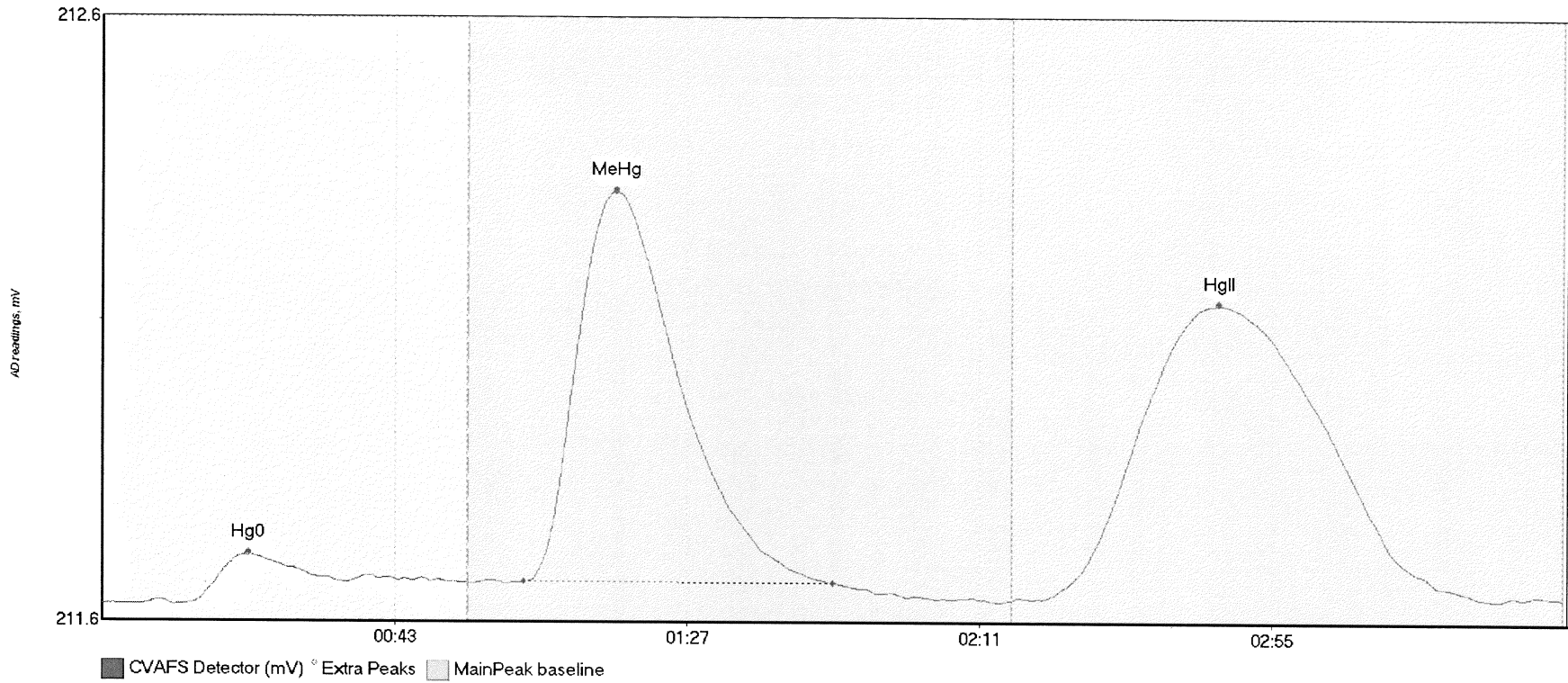
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-04 Hg0	14.465	10.5	55.0	211.66	211.68	23.2	0.098	CT	211.6511	0.00	0.03	
1708241-04 MeHg	213.703	62.3	120.3	211.68	211.68	77.6	1.146	OK	211.6511	0.00	0.03	
1708241-04 HgII	329.904	139.8	219.8	211.67	211.68	169.2	1.057	CT	211.6511	0.00	0.03	

#79: 1708241-05



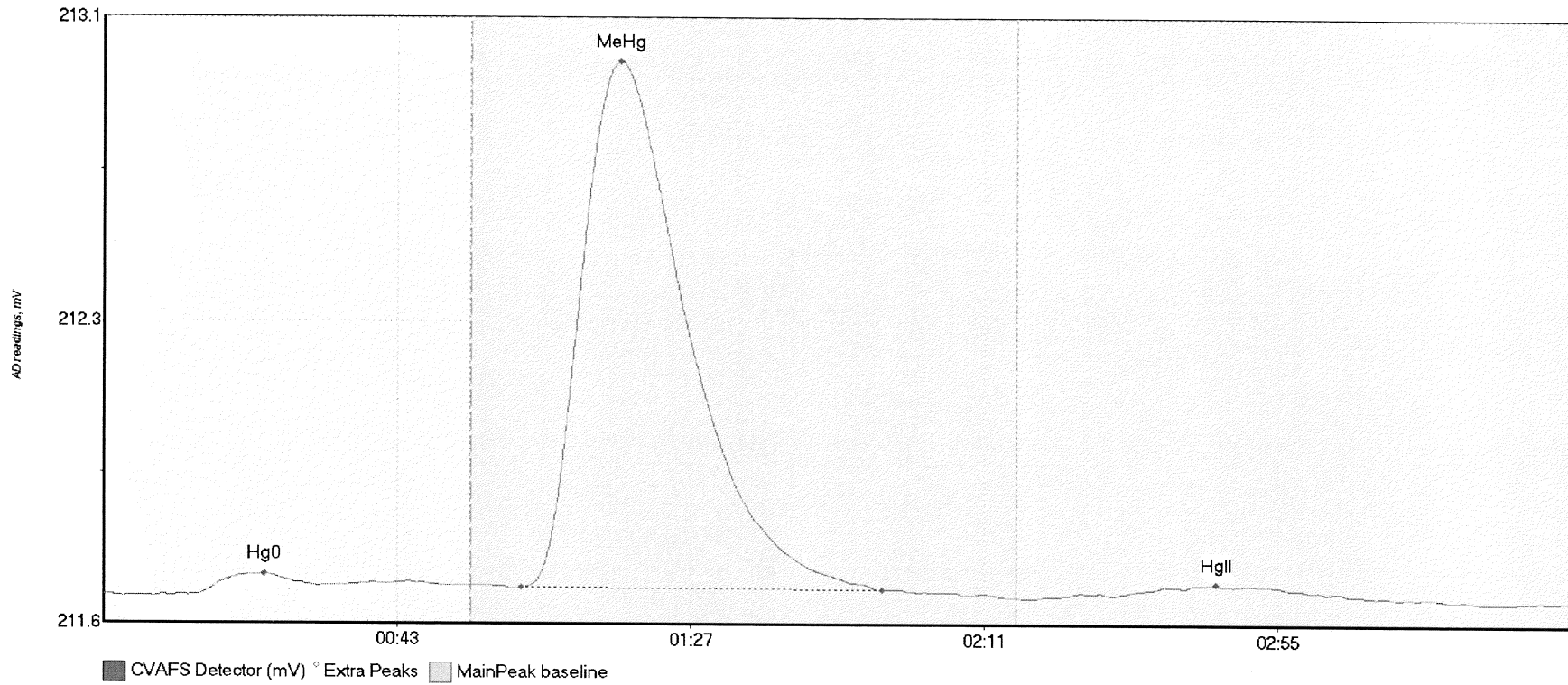
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-05 Hg0	19.237	13.0	52.1	211.65	211.69	22.3	0.136	OK	211.6602	0.00	0.03	
1708241-05 MeHg	137.844	62.1	115.0	211.69	211.68	77.7	0.761	OK	211.6602	0.00	0.03	
1708241-05 HgII	896.698	138.7	219.6	211.67	211.69	168.4	2.851	OK	211.6602	0.00	0.03	

#80: 1708241-11



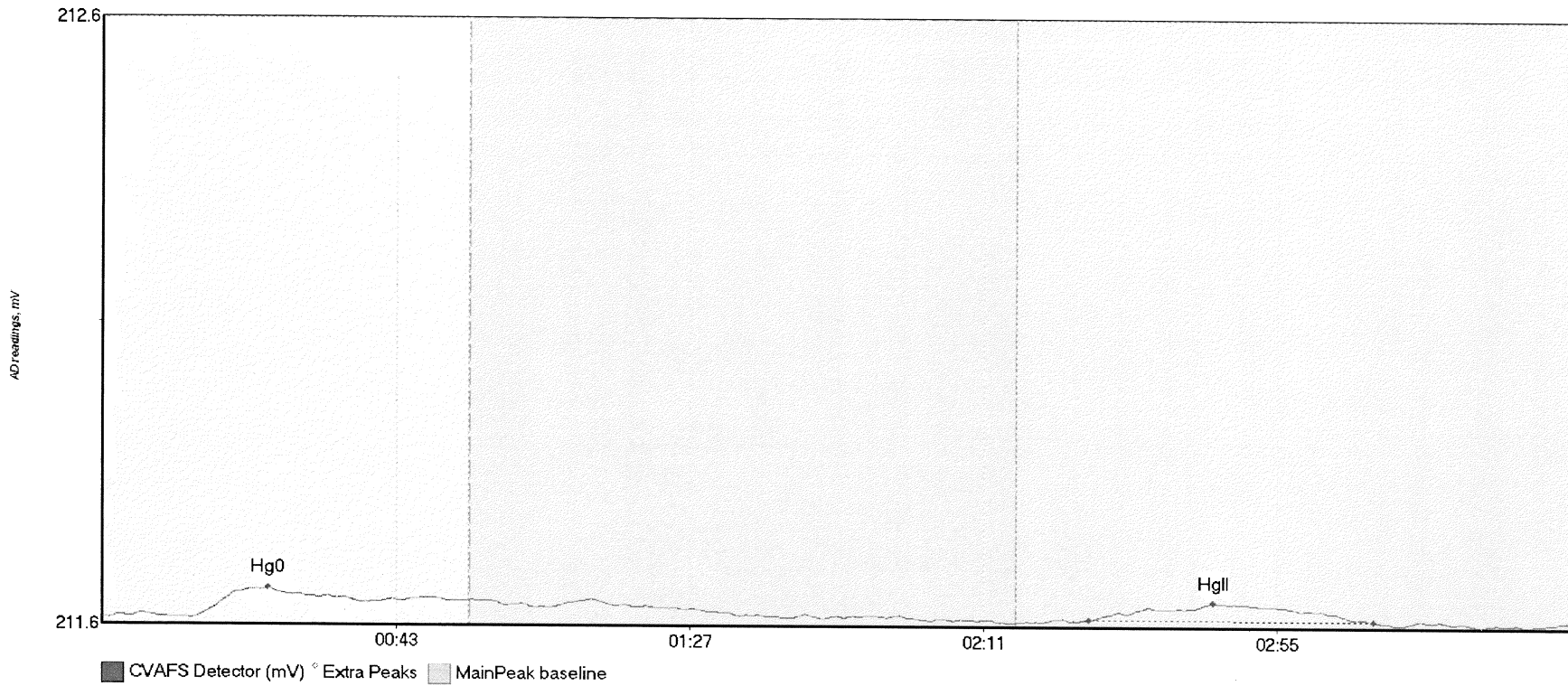
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-11 Hg0	12.210	13.2	55.0	211.64	211.67	22.0	0.081	CT	211.6360	0.00	0.01	
1708241-11 MeHg	114.696	63.4	109.9	211.67	211.67	77.3	0.647	OK	211.6360	0.00	0.01	
1708241-11 HgII	151.975	141.3	207.4	211.65	211.65	168.1	0.490	OK	211.6360	0.00	0.01	

#81: SEQ-CCV6



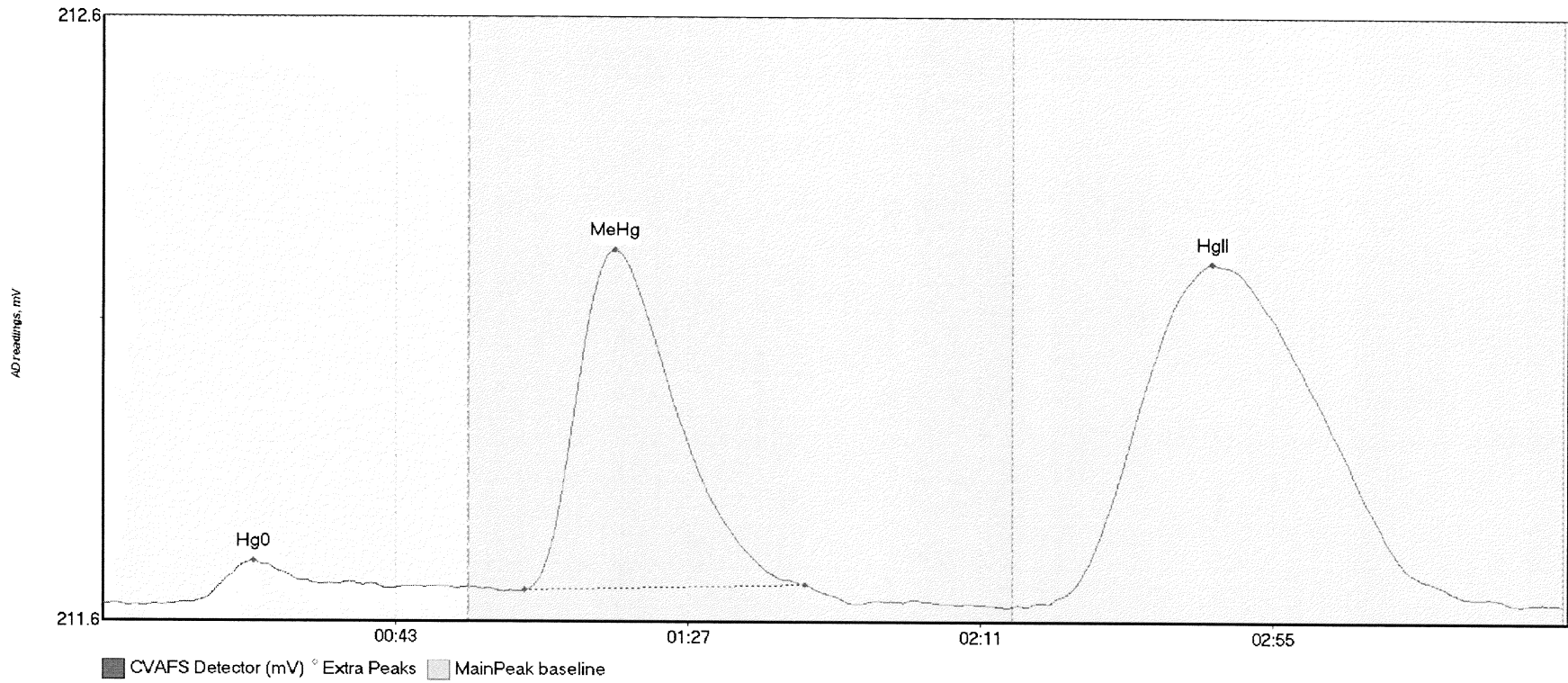
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	4.429	13.7	32.3	211.63	211.66	24.1	0.053	OK	211.6348	0.00	-0.01	
SEQ-CCV6 MeHg	245.624	62.6	116.8	211.65	211.65	77.5	1.344	OK	211.6348	0.00	-0.01	
SEQ-CCV6 HgII	6.839	144.3	187.8	211.63	211.63	166.7	0.030	OK	211.6348	0.00	-0.01	

#82: SEQ-CCB6



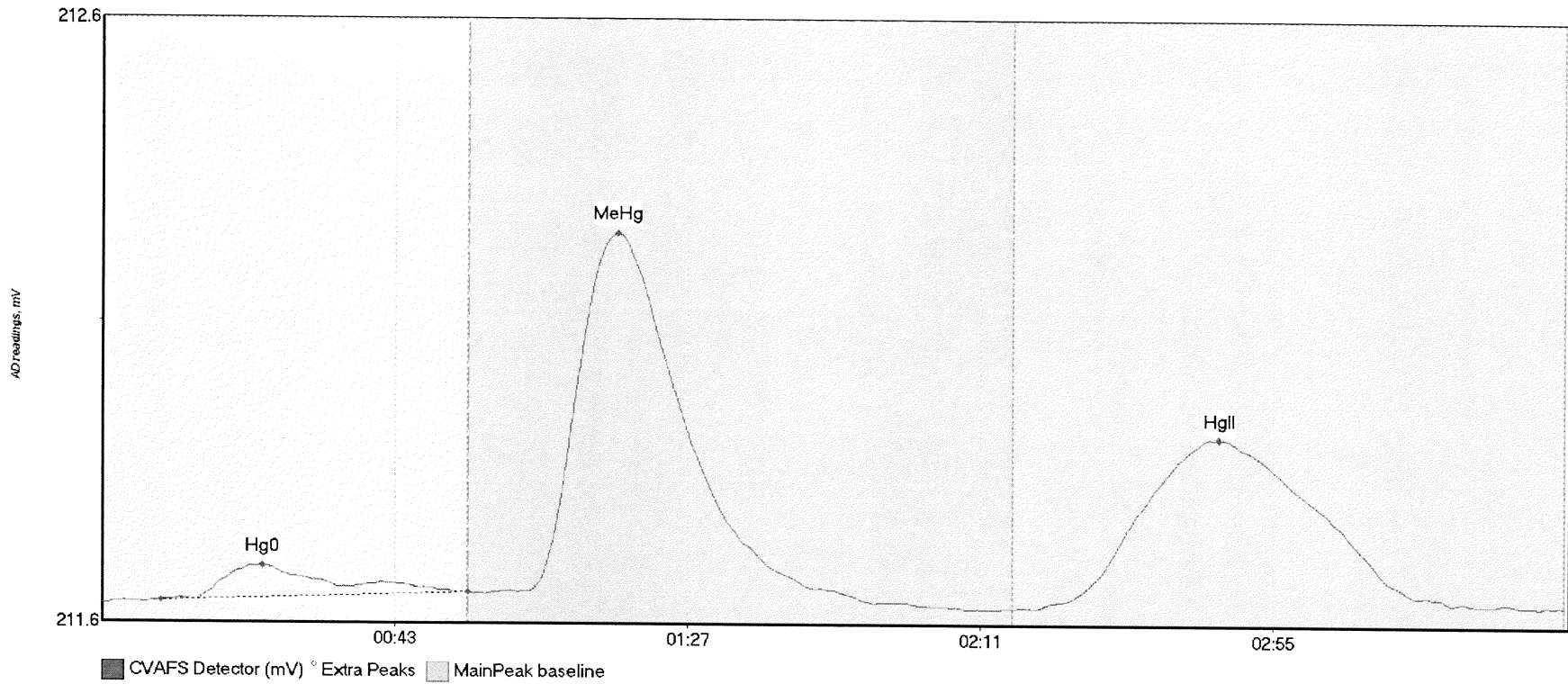
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	5.154	13.5	38.8	211.61	211.64	24.9	0.049	OK	211.6113	0.00	0.00	
SEQ-CCB6 HgII	7.459	147.7	190.4	211.61	211.61	166.5	0.029	OK	211.6113	0.00	0.00	017

#83: 1708241-12



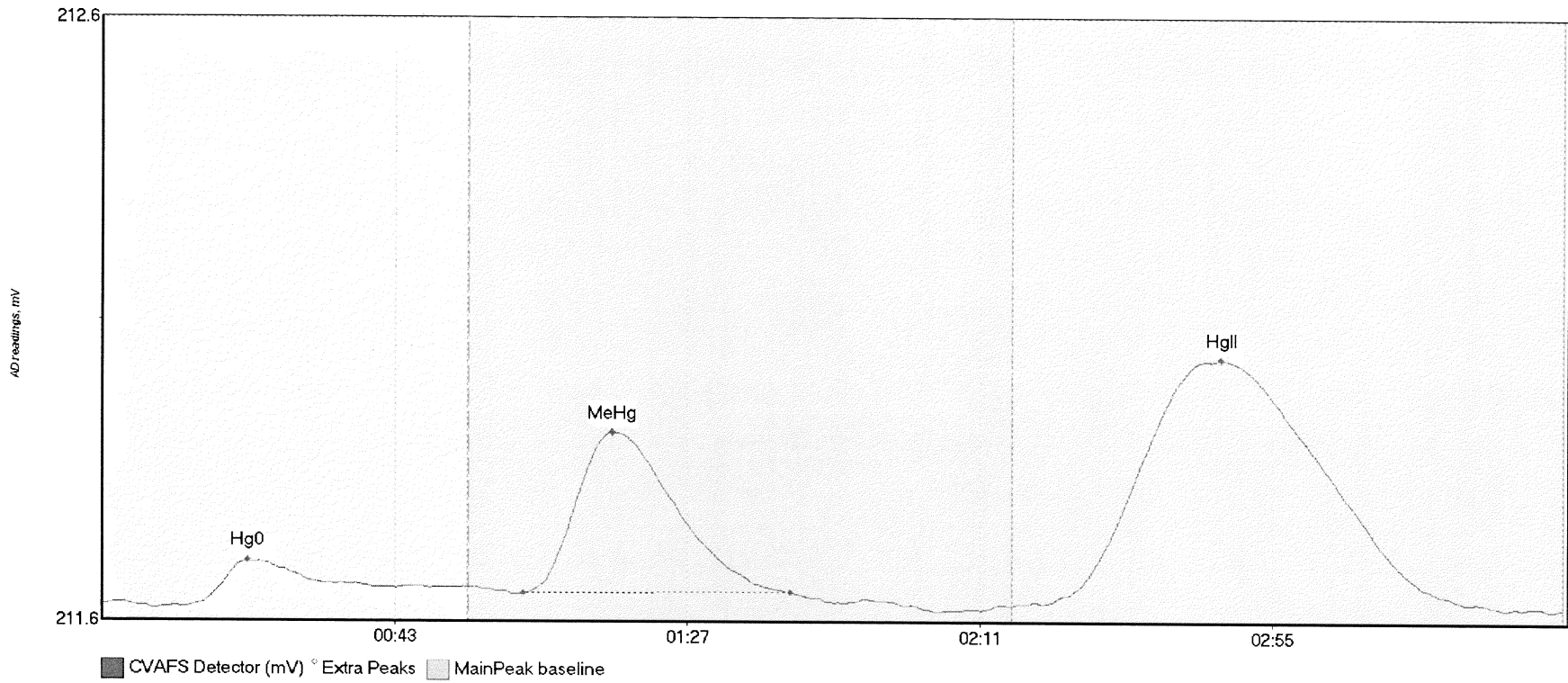
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-12 Hg0	8.889	13.3	53.1	211.61	211.63	22.7	0.068	OK	211.6067	0.00	0.00	
1708241-12 MeHg	95.580	63.4	105.6	211.63	211.64	77.0	0.563	OK	211.6067	0.00	0.00	
1708241-12 HgII	171.905	142.2	213.3	211.61	211.61	166.9	0.563	OK	211.6067	0.00	0.00	

#84: 1708241-13



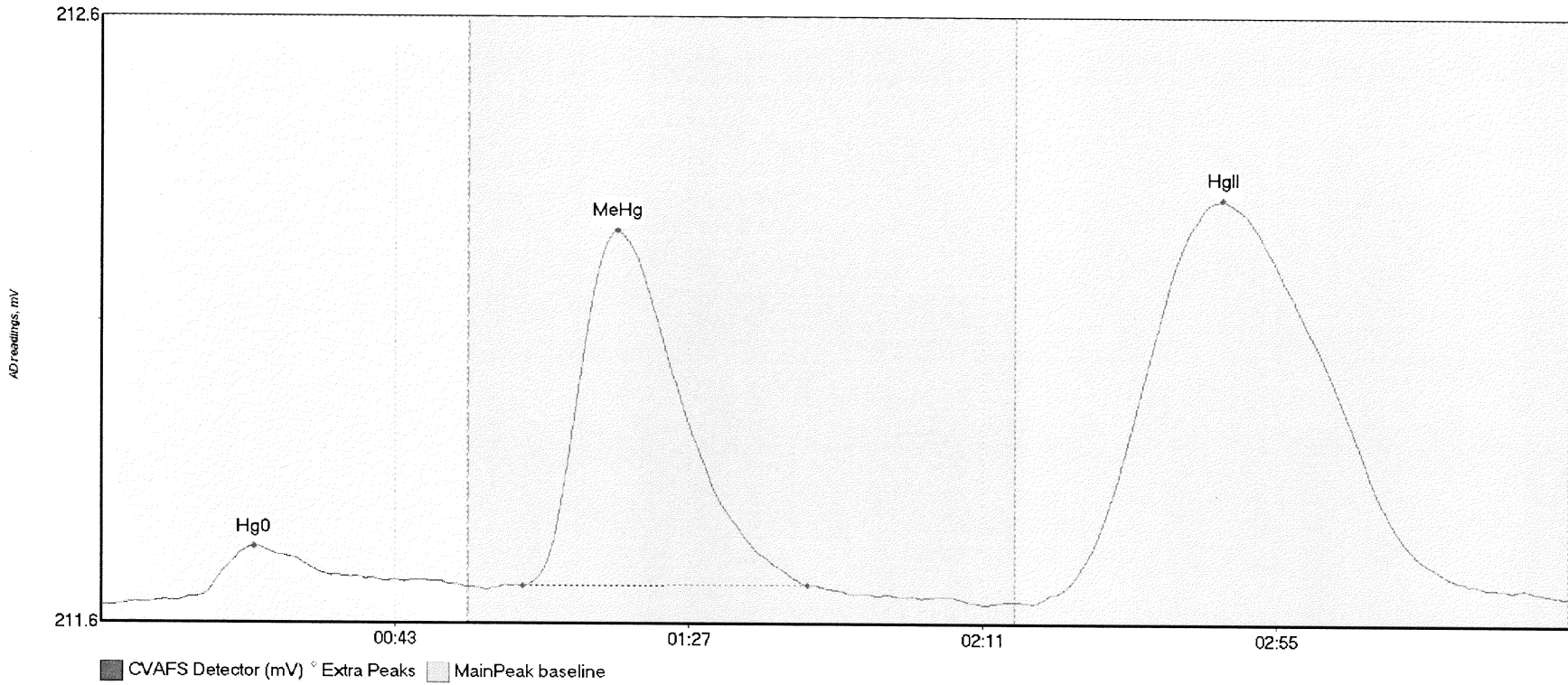
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-13 Hg0	9.744	8.8	55.0	211.61	211.63	24.2	0.058	CT	211.6062	0.00	0.00	
1708241-13 MeHg	104.987	64.1	111.8	211.63	211.62	77.5	0.592	OK	211.6062	0.00	0.00	
1708241-13 HgII	84.463	140.4	216.0	211.60	211.61	167.9	0.283	OK	211.6062	0.00	0.00	

#85: 1708241-14



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-14 Hg0	9.801	12.4	49.2	211.61	211.64	21.8	0.076	OK	211.6125	0.00	-0.01	
1708241-14 MeHg	45.623	63.3	103.5	211.63	211.63	76.8	0.268	OK	211.6125	0.00	-0.01	
1708241-14 HgII	123.422	141.6	205.5	211.61	211.61	168.3	0.407	OK	211.6125	0.00	-0.01	

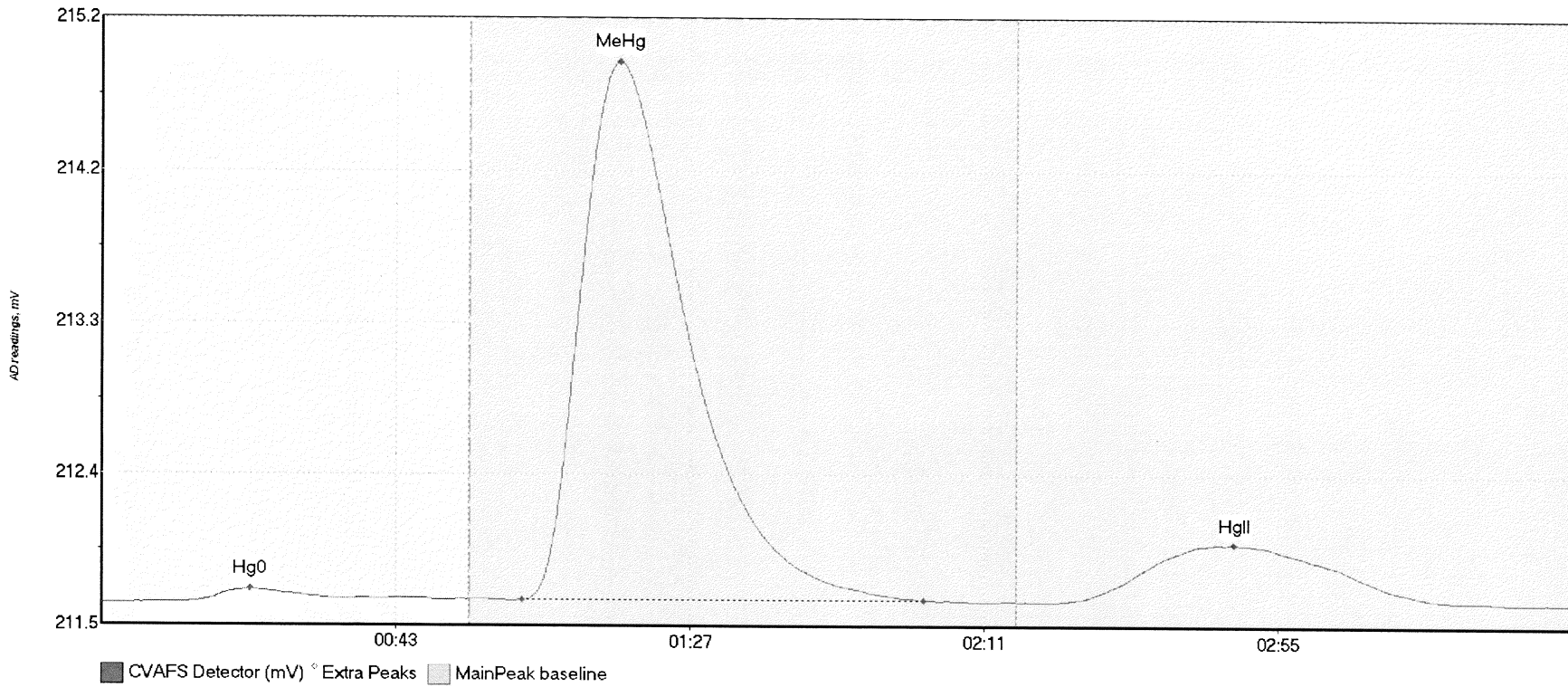
#86: 1708241-15



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-15 Hg0	14.736	6.5	55.0	211.59	211.61	22.9	0.095	CT	211.5824	0.00	0.02	
1708241-15 MeHg	102.008	63.1	105.8	211.62	211.62	77.3	0.587	OK	211.5824	0.00	0.02	
1708241-15 HgII	203.707	139.5	219.5	211.59	211.60	167.9	0.667	OK	211.5824	0.00	0.02	

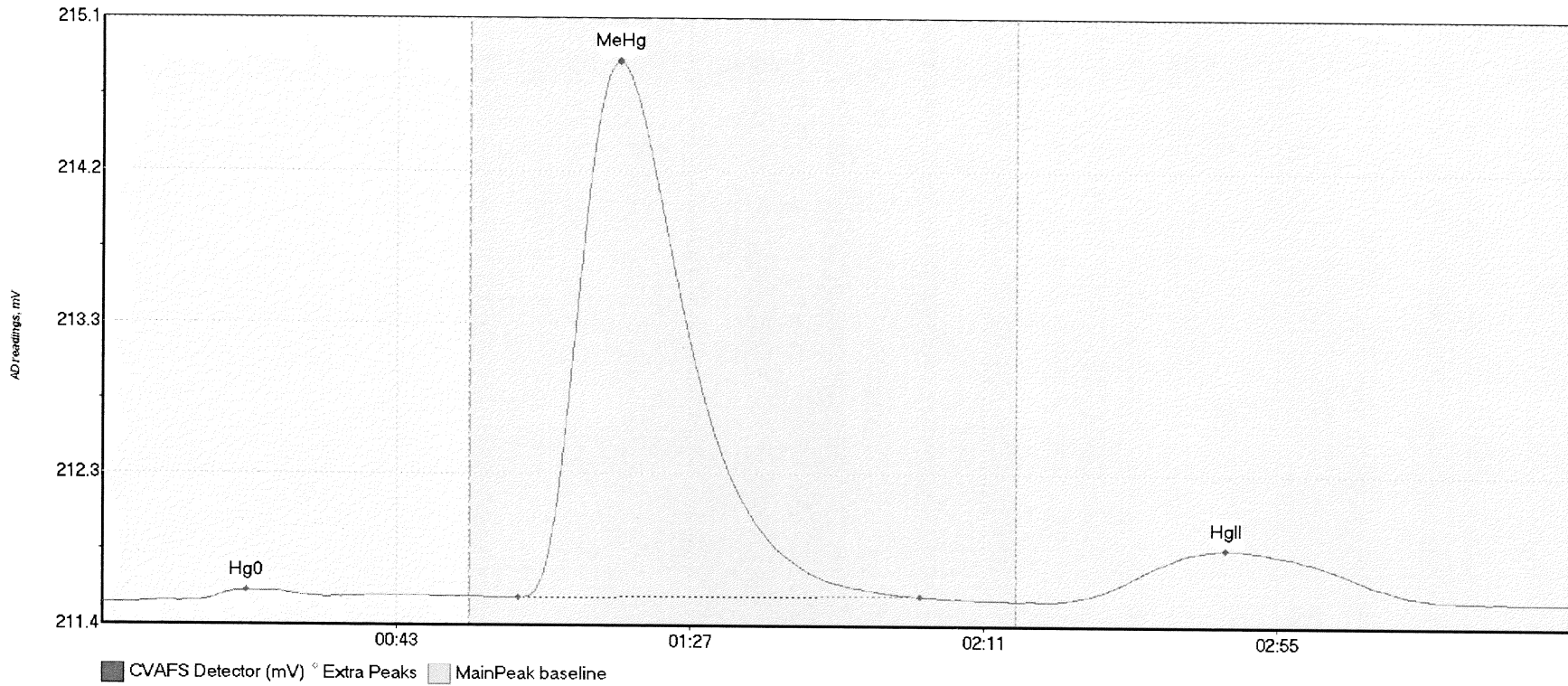
017

#87: F710421-BS2



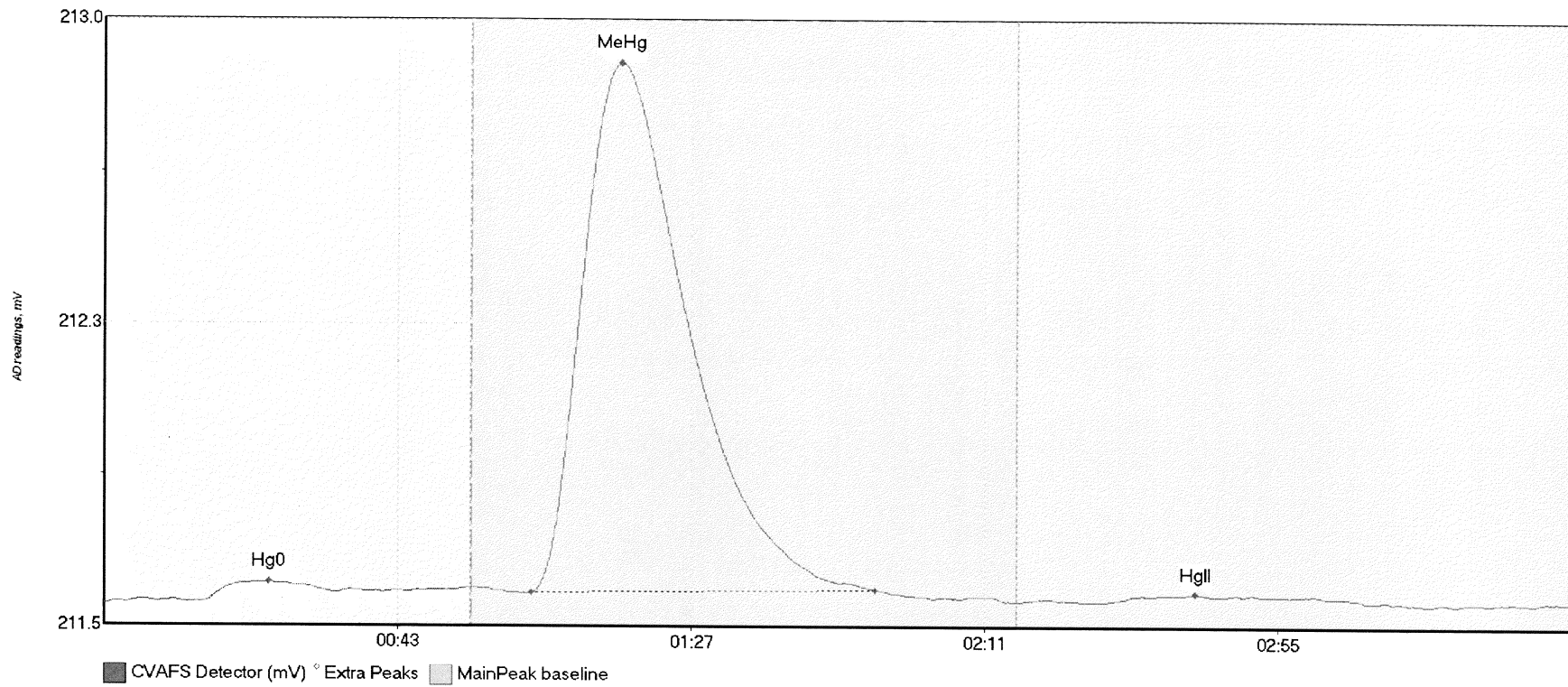
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BS2 Hg0	10.851	11.3	50.3	211.59	211.61	22.3	0.079	OK	211.5872	0.00	0.00	
F710421-BS2 MeH	608.390	62.8	123.0	211.61	211.61	77.5	3.297	OK	211.5872	0.00	0.00	
F710421-BS2 HgI	110.520	142.4	202.8	211.60	211.60	169.4	0.361	OK	211.5872	0.00	0.00	

#88: F710421-BSD2



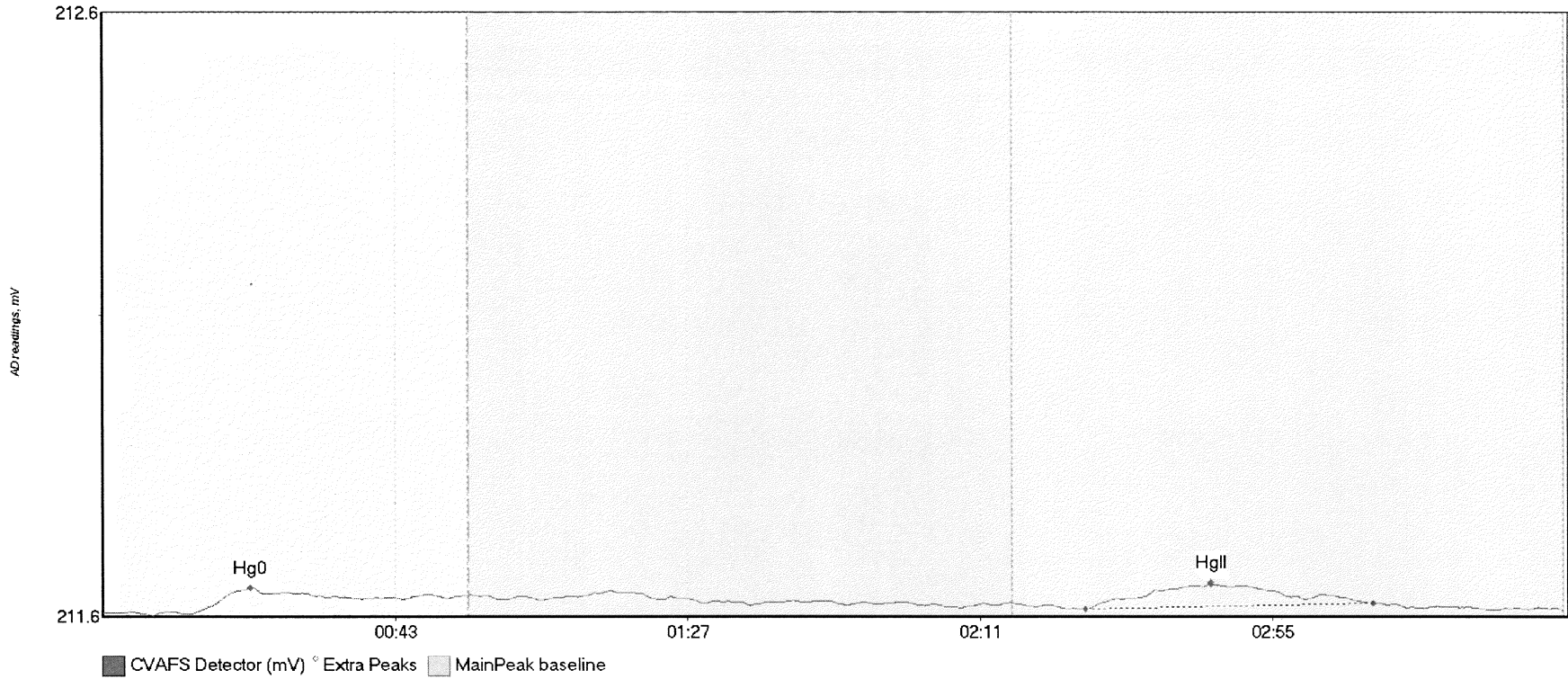
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BSD2 Hg	5.389	6.8	34.0	211.58	211.62	21.6	0.067	OK	211.5796	0.00	0.01	
F710421-BSD2 Me	591.646	62.3	122.5	211.61	211.62	77.4	3.185	OK	211.5796	0.00	0.01	
F710421-BSD2 Hg	95.981	142.4	204.2	211.60	211.60	168.3	0.309	OK	211.5796	0.00	0.01	

#89: SEQ-CCV7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV7 Hg0	4.792	14.4	34.8	211.59	211.61	24.7	0.048	OK	211.5863	0.00	0.01	
SEQ-CCV7 MeHg	236.357	64.0	115.6	211.61	211.62	77.4	1.300	OK	211.5863	0.00	0.01	017
SEQ-CCV7 HgII	5.347	150.1	189.6	211.59	211.59	163.6	0.020	OK	211.5863	0.00	0.01	

#90: SEQ-CCB7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CCB7 Hg0	5.037	12.8	45.2	211.59	211.61	22.1	0.044	OK	211.5901	0.00	0.01	
SEQ-CCB7 HgII	8.987	147.9	191.2	211.60	211.60	166.7	0.041	OK	211.5901	0.00	0.01	017



Frontier Global Sciences

MHg27001-171023-1

Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: October 23, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7J24016

Analyst: DM2

Units ng/L

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	22.10 units	441.92	22.10 units	441.92	84.9 %Rec
SEQ-CAL2	1	0.20 ng/L	95.18 units	475.88	95.18 units	475.88	91.4 %Rec
SEQ-CAL3	1	1.00 ng/L	598.88 units	598.88	598.88 units	598.88	115.0 %Rec
SEQ-CAL4	1	2.00 ng/L	1048.39 units	524.20	1048.39 units	524.20	100.7 %Rec
SEQ-CAL5	1	4.00 ng/L	2248.59 units	562.15	2248.59 units	562.15	108.0 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF	Corr. St Dev RF	Corr. RSD CF	Uncorr. Mean RF
520.60	+/- 63.36	12.2% RSD	520.60

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	0.00 units		0.00 ng/L	#VALUE!

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.655 ng/L	±1.793
BLK	2	3	0.000 ng/L	±0.000
BLK	3	0	0.000 ng/L	
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

QUALITY ASSURANCE
PEER-REVIEWED

INITIALS: PR 10/24/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB					Comments
		Type	LabNumber							Correction?	RESP	InitialResult	FinalResult	InitialUnits	
Hg2700-1	DM2	CAL	SEQ-IBL1 ✓	1	10/23/17 11:29	26857-1.RAW	11:29:31	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1 ✓	1	10/23/17 11:40	26858-1.RAW	11:40:01	22.10			22.1	0.042	0.042	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2 ✓	1	10/23/17 11:50	26859-1.RAW	11:50:32	95.18			95.2	0.183	0.183	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3 ✓	1	10/23/17 12:01	26860-1.RAW	12:01:03	598.88			598.9	1.150	1.150	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4 ✓	1	10/23/17 12:11	26861-1.RAW	12:11:33	1048.39			1048.4	2.014	2.014	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5 ✓	1	10/23/17 12:22	26862-1.RAW	12:22:04	2248.59			2248.6	4.319	4.319	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1 ✓	1	10/23/17 12:32	26863-1.RAW	12:32:35	269.01			269.0	0.517	0.517	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1 ✓	1	10/23/17 12:43	26864-1.RAW	12:43:05	1.65			1.6	0.003	0.003	ng/L	
Hg2700-1	DM2	SAM	F710422-BS1 ✓	1000	10/23/17 12:53	26865-1.RAW	12:53:36	1011.88	1		1011.9	1.942	1942.013	ng/L	
Hg2700-1	DM2	SAM	F710422-BSD1 ✓	1000	10/23/17 13:04	26866-1.RAW	13:04:07	1057.63	1		1057.6	2.030	2029.881	ng/L	
Hg2700-1	DM2	SAM	F710421-BS3 ✓	1000	10/23/17 13:14	26867-1.RAW	13:14:37	923.22	2		923.2	1.773	1773.364	ng/L	
Hg2700-1	DM2	SAM	F710421-BSD3 ✓	1000	10/23/17 13:25	26868-1.RAW	13:25:08	933.19	2		933.2	1.793	1792.509	ng/L	
Hg2700-1	DM2	BLK	F710422-BLK1 ✓	500	10/23/17 13:35	26869-1.RAW	13:35:39	3.71	1		3.7	0.007	3.561	ng/L	
Hg2700-1	DM2	BLK	F710422-BLK2 ✓	500	10/23/17 13:46	26870-1.RAW	13:46:10	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F710422-BLK3 ✓	500	10/23/17 13:56	26871-1.RAW	13:56:40	1.46	1		1.5	0.003	1.404	ng/L	
Hg2700-1	DM2	SAM	*F710422-BLK4 ✓	500	10/23/17 14:07	26872-1.RAW	14:07:11	0.00	1		0.0	-0.003	-1.655	ng/L	
Hg2700-1	DM2	SAM	F710422-DUP1 ✓	500	10/23/17 14:17	26873-1.RAW	14:17:41	224.96	1		225.0	0.429	214.401	ng/L	
Hg2700-1	DM2	SAM	F710422-MS1 ✓	500	10/23/17 14:28	26874-1.RAW	14:28:12	778.26	1		778.3	1.492	745.805	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1 ✓	1	10/23/17 14:38	26875-1.RAW	14:38:43	251.53			251.5	0.483	0.483	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1 ✓	1	10/23/17 14:49	26876-1.RAW	14:49:14	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F710422-MSD1 ✓	500	10/23/17 14:59	26877-1.RAW	14:59:44	819.16	1		819.2	1.570	785.090	ng/L	
Hg2700-1	DM2	SAM	F710422-MS2 ✓	500	10/23/17 15:10	26878-1.RAW	15:10:15	695.85	1		695.9	1.333	666.660	ng/L	
Hg2700-1	DM2	SAM	F710422-MSD2 ✓	500	10/23/17 15:20	26879-1.RAW	15:20:46	649.81	1		649.8	1.245	622.441	ng/L	
Hg2700-1	DM2	SAM	1708240-06 ✓	500	10/23/17 15:31	26880-1.RAW	15:31:16	226.61	1		226.6	0.432	215.982	ng/L	
Hg2700-1	DM2	SAM	1708240-07 ✓	500	10/23/17 15:41	26881-1.RAW	15:41:47	87.36	1		87.4	0.164	82.243	ng/L	
Hg2700-1	DM2	SAM	1708240-08 ✓	500	10/23/17 15:52	26882-1.RAW	15:52:18	161.10	1		161.1	0.306	153.073	ng/L	
Hg2700-1	DM2	SAM	1708240-09 ✓	500	10/23/17 16:02	26883-1.RAW	16:02:48	64.49	1		64.5	0.121	60.279	ng/L	
Hg2700-1	DM2	SAM	1708240-10 ✓	500	10/23/17 16:13	26884-1.RAW	16:13:19	233.22	1		233.2	0.445	222.332	ng/L	
Hg2700-1	DM2	SAM	1708240-11 ✓	500	10/23/17 16:23	26885-1.RAW	16:23:50	190.23	1		190.2	0.362	181.044	ng/L	
Hg2700-1	DM2	SAM	1708240-12 ✓	500	10/23/17 16:34	26886-1.RAW	16:34:20	131.76	1		131.8	0.250	124.887	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2 ✓	1	10/23/17 16:44	26887-1.RAW	16:44:51	227.78			227.8	0.438	0.438	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2 ✓	1	10/23/17 16:55	26888-1.RAW	16:55:22	1.63			1.6	0.003	0.003	ng/L	
Hg2700-1	DM2	SAM	1708240-13 ✓	500	10/23/17 17:05	26889-1.RAW	17:05:52	122.57	1		122.6	0.232	116.062	ng/L	
Hg2700-1	DM2	SAM	1708240-14 ✓	500	10/23/17 17:16	26890-1.RAW	17:16:23	128.35	1		128.4	0.243	121.618	ng/L	
Hg2700-1	DM2	SAM	1708240-15 ✓	500	10/23/17 17:26	26891-1.RAW	17:26:54	157.87	1		157.9	0.300	149.966	ng/L	
Hg2700-1	DM2	SAM	1710535-02 ✓	500	10/23/17 17:37	26892-1.RAW	17:37:24	276.79	1		276.8	0.528	264.181	ng/L	
Hg2700-1	DM2	SAM	1710626-01 ✓	500	10/23/17 17:47	26893-1.RAW	17:47:55	75.51	1		75.5	0.142	70.868	ng/L	
Hg2700-1	DM2	BLK	F710421-BLK8 ✓	500	10/23/17 17:58	26894-1.RAW	17:58:26	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F710421-BLK9 ✓	500	10/23/17 18:08	26895-1.RAW	18:08:56	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F710421-BLKA ✓	500	10/23/17 18:19	26896-1.RAW	18:19:27	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLKB ✓	500	10/23/17 18:29	26897-1.RAW	18:29:58	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLKC ✓	500	10/23/17 18:40	26898-1.RAW	18:40:28	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3 ✓	1	10/23/17 18:50	26899-1.RAW	18:50:59	242.66			242.7	0.466	0.466	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3 ✓	1	10/23/17 19:01	26900-1.RAW	19:01:31	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLKD ✓	500	10/23/17 19:12	26901-1.RAW	19:12:02	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F710421-BLKE ✓	500	10/23/17 19:22	26902-1.RAW	19:22:32	0.00	2		0.0	0.000	0.000	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB					Comments
		Type	LabNumber							Correction?	RESP	InitialResult	FinalResult	InitialUnits	
Hg2700-1	DM2	SAM	F710421-DUP2	500	10/23/17 19:33	26903-1.RAW	19:33:03	130.01	2		130.0	0.250	124.865	ng/L	
Hg2700-1	DM2	SAM	F710421-MS3	500	10/23/17 19:43	26904-1.RAW	19:43:34	714.19	2		714.2	1.372	685.920	ng/L	
Hg2700-1	DM2	SAM	F710421-MSD3	500	10/23/17 19:54	26905-1.RAW	19:54:05	689.63	2		689.6	1.325	662.333	ng/L	
Hg2700-1	DM2	SAM	F710421-MS4	500	10/23/17 20:04	26906-1.RAW	20:04:35	685.13	2		685.1	1.316	658.015	ng/L	
Hg2700-1	DM2	SAM	F710421-MSD4	500	10/23/17 20:15	26907-1.RAW	20:15:06	677.20	2		677.2	1.301	650.397	ng/L	
Hg2700-1	DM2	SAM	1708118-01RE1	500	10/23/17 20:25	26908-1.RAW	20:25:37	130.52	2		130.5	0.251	125.357	ng/L	
Hg2700-1	DM2	SAM	1708118-02RE1	500	10/23/17 20:36	26909-1.RAW	20:36:08	103.62	2		103.6	0.199	99.524	ng/L	
Hg2700-1	DM2	SAM	1708118-03RE1	500	10/23/17 20:46	26910-1.RAW	20:46:38	189.70	2		189.7	0.364	182.188	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4	1	10/23/17 20:57	26911-1.RAW	20:57:09	251.68			251.7	0.483	0.483	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4	1	10/23/17 21:07	26912-1.RAW	21:07:40	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1708118-04RE1	500	10/23/17 21:18	26913-1.RAW	21:18:11	138.47	2		138.5	0.266	132.989	ng/L	
Hg2700-1	DM2	SAM	1708118-05RE1	500	10/23/17 21:28	26914-1.RAW	21:28:41	165.02	2		165.0	0.317	158.491	ng/L	
Hg2700-1	DM2	SAM	1708240-01RE1	500	10/23/17 21:39	26915-1.RAW	21:39:12	105.10	2		105.1	0.202	100.939	ng/L	
Hg2700-1	DM2	SAM	1708240-02RE1	500	10/23/17 21:49	26916-1.RAW	21:49:43	61.17	2		61.2	0.118	58.752	ng/L	
Hg2700-1	DM2	SAM	1708240-03RE1	500	10/23/17 22:00	26917-1.RAW	22:00:14	81.17	2		81.2	0.156	77.958	ng/L	
Hg2700-1	DM2	SAM	1708240-04RE1	500	10/23/17 22:10	26918-1.RAW	22:10:44	110.10	2		110.1	0.211	105.747	ng/L	
Hg2700-1	DM2	SAM	1708240-05RE1	500	10/23/17 22:21	26919-1.RAW	22:21:15	84.78	2		84.8	0.163	81.426	ng/L	
Hg2700-1	DM2	SAM	1708241-01RE1	500	10/23/17 22:31	26920-1.RAW	22:31:46	83.44	2		83.4	0.160	80.139	ng/L	
Hg2700-1	DM2	SAM	1708241-02RE1	500	10/23/17 22:42	26921-1.RAW	22:42:17	165.28	2		165.3	0.317	158.742	ng/L	
Hg2700-1	DM2	SAM	1708241-03RE1	500	10/23/17 22:52	26922-1.RAW	22:52:47	169.80	2		169.8	0.326	163.081	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5	1	10/23/17 23:03	26923-1.RAW	23:03:18	269.03			269.0	0.517	0.517	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5	1	10/23/17 23:13	26924-1.RAW	23:13:49	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1708241-04RE1	500	10/23/17 23:24	26925-1.RAW	23:24:19	240.26	2		240.3	0.461	230.749	ng/L	
Hg2700-1	DM2	SAM	1708241-05RE1	500	10/23/17 23:34	26926-1.RAW	23:34:50	153.08	2		153.1	0.294	147.023	ng/L	
Hg2700-1	DM2	SAM	1708241-11RE1	500	10/23/17 23:45	26927-1.RAW	23:45:21	128.74	2		128.7	0.247	123.644	ng/L	
Hg2700-1	DM2	SAM	1708241-12RE1	500	10/23/17 23:55	26928-1.RAW	23:55:52	115.14	2		115.1	0.221	110.579	ng/L	
Hg2700-1	DM2	SAM	1708241-13RE1	500	10/23/17 0:06	26929-1.RAW	0:06:23	106.42	2		106.4	0.204	102.206	ng/L	
Hg2700-1	DM2	SAM	1708241-14RE1	500	10/23/17 0:16	26930-1.RAW	0:16:53	44.90	2		44.9	0.086	43.121	ng/L	
Hg2700-1	DM2	SAM	1708241-15RE1	500	10/23/17 0:27	26931-1.RAW	0:27:24	127.98	2		128.0	0.246	122.914	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6	1	10/23/17 0:37	26932-1.RAW	0:37:55	268.68			268.7	0.516	0.516	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6	1	10/23/17 0:48	26933-1.RAW	0:48:25	0.00			0.0	0.000	0.000	ng/L	

ANALYSIS SEQUENCE

7J24016

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/23/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J24016-IBL1 ✓	QC	1			
7J24016-CAL1 ✓	QC	2	1706041 ✓		
7J24016-CAL2 ✓	QC	3	1706042 ✓		
7J24016-CAL3 ✓	QC	4	1706043 ✓		
7J24016-CAL4 ✓	QC	5	1706044 ✓		
7J24016-CAL5 ✓	QC	6	1706045 ✓		
7J24016-ICV1 ✓	QC	7	1705084 ✓		
7J24016-ICB1 ✓	QC	8			
F710422-BS1 ✓	QC	9			
F710422-BSD1 ✓	QC	10			
F710421-BS3 ✓	QC	11			
F710421-BSD3 ✓	QC	12			
F710422-BLK1 ✓	QC	13			
F710422-BLK2 ✓	QC	14			
F710422-BLK3 ✓	QC	15			
F710422-BLK4 ✓	QC	16			
F710422-DUP1 ✓	QC	17			
F710422-MS1 ✓	QC	18			
7J24016-CCV1 ✓	QC	19	1705084 ✓		
7J24016-CCB1 ✓	QC	20			
F710422-MSD1 ✓	QC	21			
F710422-MS2 ✓	QC	22			
F710422-MSD2 ✓	QC	23			
1708240-06 ✓	MHg-CVAFS-T-KOH	24			
1708240-07 ✓	MHg-CVAFS-T-KOH	25			
1708240-08 ✓	MHg-CVAFS-T-KOH	26			
1708240-09 ✓	MHg-CVAFS-T-KOH	27			
1708240-10 ✓	MHg-CVAFS-T-KOH	28			
1708240-11 ✓	MHg-CVAFS-T-KOH	29			
1708240-12 ✓	MHg-CVAFS-T-KOH	30			
7J24016-CCV2 ✓	QC	31	1705084 ✓		
7J24016-CCB2 ✓	QC	32			
1708240-13 ✓	MHg-CVAFS-T-KOH	33			
1708240-14 ✓	MHg-CVAFS-T-KOH	34			
1708240-15 ✓	MHg-CVAFS-T-KOH	35			

Due Date: 11/15/2017

ANALYSIS SEQUENCE

7J24016

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/23/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1710535-02 ✓	MHg-CVAFS-T-KOH	36			
1710626-01 ✓	MHg-CVAFS-T-KOH	37			Scan all data for level IV report
F710421-BLK8 ✓	QC	38			
F710421-BLK9 ✓	QC	39			
F710421-BLKA ✓	QC	40			
F710421-BLKB ✓	QC	41			
F710421-BLKC ✓	QC	42			
7J24016-CCV3 ✓	QC	43	1705084	✓	
7J24016-CCB3 ✓	QC	44			
F710421-BLKD ✓	QC	45			
F710421-BLKE ✓	QC	46			
F710421-DUP2 ✓	QC	47			
F710421-MS3 ✓	QC	48			
F710421-MSD3 ✓	QC	49			
F710421-MS4 ✓	QC	50			
F710421-MSD4 ✓	QC	51			
1708118-01RE1 ✓	MHg-CVAFS-T-KOH	52			Added 10/23/2017 by DM2
1708118-02RE1 ✓	MHg-CVAFS-T-KOH	53			Added 10/23/2017 by DM2
1708118-03RE1 ✓	MHg-CVAFS-T-KOH	54			Added 10/23/2017 by DM2
7J24016-CCV4 ✓	QC	55	1705084	✓	
7J24016-CCB4 ✓	QC	56			
1708118-04RE1 ✓	MHg-CVAFS-T-KOH	57			Added 10/23/2017 by DM2
1708118-05RE1 ✓	MHg-CVAFS-T-KOH	58			Added 10/23/2017 by DM2
1708240-01RE1 ✓	MHg-CVAFS-T-KOH	59			Added 10/23/2017 by DM2
1708240-02RE1 ✓	MHg-CVAFS-T-KOH	60			Added 10/23/2017 by DM2
1708240-03RE1 ✓	MHg-CVAFS-T-KOH	61			Added 10/23/2017 by DM2
1708240-04RE1 ✓	MHg-CVAFS-T-KOH	62			Added 10/23/2017 by DM2
1708240-05RE1 ✓	MHg-CVAFS-T-KOH	63			Added 10/23/2017 by DM2
1708241-01RE1 ✓	MHg-CVAFS-T-KOH	64			Added 10/23/2017 by DM2
1708241-02RE1 ✓	MHg-CVAFS-T-KOH	65			Added 10/23/2017 by DM2
1708241-03RE1 ✓	MHg-CVAFS-T-KOH	66			Added 10/23/2017 by DM2
7J24016-CCV5 ✓	QC	67	1705084	✓	
7J24016-CCB5 ✓	QC	68			
1708241-04RE1 ✓	MHg-CVAFS-T-KOH	69			Added 10/23/2017 by DM2
1708241-05RE1 ✓	MHg-CVAFS-T-KOH	70			Added 10/23/2017 by DM2

Due Date: 11/15/2017

PREPARATION BENCH SHEET

F710422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710422-BLK1	Blank	0.25	20					
F710422-BLK2	Blank	0.25	20					
F710422-BLK3	Blank	0.25	20					
F710422-BLK4	Blank	0.287	20					Filter Blank for 1710626
F710422-BS1	LCS	0.1272	20	1705412	127.2			
F710422-BSD1	LCS Dup	0.1272	20	1705412	127.2			
F710422-DUP1	Duplicate [1708240-10]	0.284	20					
F710422-MS1	Matrix Spike [1708240-10]	0.279	20	1705977	100			
F710422-MS2	Matrix Spike [1708240-15]	0.267	20	1705977	100			
F710422-MSD1	Matrix Spike Dup [1708240-10]	0.267	20	1705977	100			
F710422-MSD2	Matrix Spike Dup [1708240-15]	0.276	20	1705977	100			

Standard ID(s):
1705412
1705977

Description:
DORM-4
MHg New Primary 100 ng/mL spike

Expiration:
06-Jan-20 00:00
15-Sep-18 00:00

Reagent ID(s):
1702551
1705427
1705837
1706016
1706109

Description:
Boiling Chips for AFS prep
Methanol, HPLC Grade
25% KOH/Methanol
Ethylating Agent (For Methyl Mercury Analysis)
Acetate Buffer

Expiration:
31-Dec-17 00:00
08-Sep-20 00:00
03-Feb-18 00:00
08-Apr-18 00:00
11-Apr-18 00:00

PREPARATION BENCH SHEET

F710422

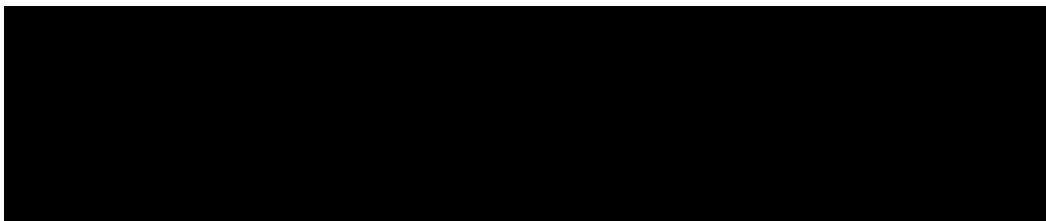
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708240-06	PI-01_17HC001_080217_POL_01_WB	0.255	20	-	-	-		
1708240-07	PI-01_17HC001_080217_POL_02_WB	0.277	20	-	-	-		
1708240-08	PI-01_17HC001_080217_POL_03_WB	0.264	20	-	-	-		
1708240-09	PI-01_17HC001_080217_POL_04_WB	0.262	20	-	-	-		
1708240-10	PI-01_17HC001_080217_POL_05_WB	0.278	20	QC	-	-	MS/MSD	
1708240-11	SVE-02INT_17HC001_080217_POL_01_WB	0.287	20	-	-	-		
1708240-12	SVE-02INT_17HC001_080217_POL_02_WB	0.257	20	-	-	-		
1708240-13	SVE-02INT_17HC001_080217_POL_03_WB	0.267	20	-	-	-		
1708240-14	SVE-02INT_17HC001_080217_POL_04_WB	0.262	20	-	-	-		
1708240-15	SVE-02INT_17HC001_080217_POL_05_WB	0.269	20	QC	-	-	MS/MSD	
1710535-02	221177 salmon S-170907-00113	0.276	20	-	-	-	Retest of 1709673-07 (@500x)	
1710626-01	OL-2688-01	0.258	20	-	-	-	Scan all data for level IV report	



PREPARATION BENCH SHEET

2700-1

F710422

10/23/17 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710422-BLK1	Blank	0.25	20					500X ✓
F710422-BLK2	Blank	0.25	20					500X ✓
F710422-BLK3	Blank	0.25	20					500X ✓
F710422-BLK4	Blank	0.287	20					Filter Blank for 1710626 500X ✓
F710422-BS1	LCS	0.1272	20	1705412	127.2			1000X ✓
F710422-BSD1	LCS Dup	0.1272	20	1705412	127.2			1000X ✓
F710422-DUP1	Duplicate [1708240-10]	0.284	20					500X ✓
F710422-MS1	Matrix Spike [1708240-10]	0.279	20	1705977	100			500X ✓
F710422-MS2	Matrix Spike [1708240-15]	0.267	20	1705977	100			500X ✓
F710422-MSD1	Matrix Spike Dup [1708240-10]	0.267	20	1705977	100			500X ✓
F710422-MSD2	Matrix Spike Dup [1708240-15]	0.276	20	1705977	100			500X ✓

Standard ID(s):
1705412
1705977

Description:
DORM-4
MHg New Primary 100 ng/mL spike

Expiration:
06-Jan-20 00:00
15-Sep-18 00:00

Reagent ID(s):
1702551
1705427
1705837

Description:
Boiling Chips for AFS prep
Methanol, HPLC Grade
25% KOH/Methanol

Expiration:
31-Dec-17 00:00
08-Sep-20 00:00
03-Feb-18 00:00

1706109
1706016

Due Date: 11/14/2017

PREPARATION BENCH SHEET

2700-1

10/23/17 DM

F710422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708240-06	PI-01_17HC001_080217_POL_01_WB	0.255	20	-	-	-		500x
1708240-07	PI-01_17HC001_080217_POL_02_WB	0.277	20	-	-	-		500x
1708240-08	PI-01_17HC001_080217_POL_03_WB	0.264	20	-	-	-		500x
1708240-09	PI-01_17HC001_080217_POL_04_WB	0.262	20	-	-	-		500x
1708240-10	PI-01_17HC001_080217_POL_05_WB	0.278	20	QC	-	-	MS/MSD	500x
1708240-11	SVE-02INT_17HC001_080217_POL_01_WB	0.287	20	-	-	-		500x
1708240-12	SVE-02INT_17HC001_080217_POL_02_WB	0.257	20	-	-	-		500x
1708240-13	SVE-02INT_17HC001_080217_POL_03_WB	0.267	20	-	-	-		500x
1708240-14	SVE-02INT_17HC001_080217_POL_04_WB	0.262	20	-	-	-		500x
1708240-15	SVE-02INT_17HC001_080217_POL_05_WB	0.269	20	QC	-	-	MS/MSD	500x
1710535-02	221177 salmon S-170907-00113	0.276	20	-	-	-	Retest of 1709673-07 (@500x)	500x
1710626-01	OL-2688-01	0.258	20	-	-	-	Scan all data for level IV report	500x

Technician: WF Batch#: F710422 Date: 10/19/17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/CH₂Cl₂: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFAFS-T-AFS-SOP2807 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: _____ Vial Type: Glass Teflon
 Balance#: 6,19105244 Calibrated? Yes No Therm.#: 13698 Calibrated? Yes No

*Time in: 19:15 Actual Temp. (raw): 76.0 °C w/ CF: 76.0 °C
 Time out: 22:15 Actual Temp. (raw): Times °C w/ CF: Timer °C
 *Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705427) Spike vol.: 100 µL (LIMS ID: 1705977)
 Spike Witness: DM 10/19/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: N1104693 Calibration Date: 10/18/17
 HNO₃ LIMS ID: N/A Pipette SN#: M101152 Calibration Date: 10/18/17
 70/30 LIMS ID: N/A Dispenser #: 02148426 Calibrated? Yes No
 Other Acid LIMS ID: Kott/Methanol: 1705837 Dispenser #: N/A
 Glass Vial # 00068847 Boiling Chip lot # 1702551 *Hotblock Position: A6

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F710422 F710422 - BLK	0.276	23	170626 - 01	0.258	BS1/BSD1 = duplicate LIMS: 1705427 Balance: 1g
2	F710422 - BLK2	0.283	24			
3	F710422 - BLK3	0.262	25			Comments
4	F710422 - BLK4	0.287	26			
5	F710422 - BS1	0.1272	27			MS/MSD spiked with 100µL of 1705977
6	F710422 - BSD1	0.1272	28			
7	1708240 - 06	0.255	29			BLK is filter blank for 170626-01
8	1708240 - 07	0.277	30			
9	1708240 - 08	0.264	31			
10	1708240 - 09	0.262	32			DUP1/MS1/MSD1 ^{WF} source: 1708240-09
11	1708240 - 10	0.278	33			
12	F710422 - DUP1	0.284	34			MS2/MSD2 source: 1708240-15
13	F710422 - MS1	0.279	35			
14	F710422 - MSD1	0.267	36			
15	1708240 - 11	0.287	37			
16	1708240 - 12	0.257	38			
17	1708240 - 13	0.267	39			
18	1708240 - 14	0.262	40			
19	1708240 - 15	0.269	41			
20	F710422 - MS2	0.267	42			
21	F710422 - MSD2	0.272	43			
22	1710535 - 02	0.272	44			

PREPARATION BENCH SHEET

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	μ l Spike1	Spike2 ID	μ l Spike2	Extraction Comments
F710421-BLK1	Blank	0.25	20					
F710421-BLK2	Blank	0.25	20					
F710421-BLK3	Blank	0.25	20					
F710421-BLK4	Blank	0.282	20					Pre-homogenization Blank for 1708118/1708119
F710421-BLK5	Blank	0.27	20					Post-homogenization Blank for 1708118/1708119
F710421-BLK6	Blank	0.283	20					Pre-homogenization Blank for 1708240/1708241
F710421-BLK7	Blank	0.278	20					Pre-homogenization Blank for 1708240/1708241
F710421-BLK8	Blank	0.25	20					
F710421-BLK9	Blank	0.25	20					
F710421-BLKA	Blank	0.25	20					
F710421-BLKB	Blank	0.282	20					
F710421-BLKC	Blank	0.27	20					
F710421-BLKD	Blank	0.283	20					
F710421-BLKE	Blank	0.278	20					
F710421-BS1	LCS	0.1259	20	1705412	125.9			
F710421-BS2	LCS	0.1259	20	1705412	125.9			
F710421-BS3	LCS	0.1259	20	1705412	125.9			
F710421-BSD1	LCS Dup	0.1275	20	1705412	127.5			
F710421-BSD2	LCS Dup	0.1275	20	1705412	127.5			
F710421-BSD3	LCS Dup	0.1275	20	1705412	127.5			
F710421-DUP1	Duplicate [1708118-01]	0.263	20					
F710421-DUP2	Duplicate [1708118-01RE1]	0.263	20					
F710421-MS1	Matrix Spike [1708118-01]	0.262	20	1705977	100			

Due Date: 11/15/2017

PREPARATION BENCH SHEET

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

F710421-MS2	Matrix Spike [1708241-01]	0.275	20	1705977	100			
F710421-MS3	Matrix Spike [1708118-01RE1]	0.262	20	1705977	100			
F710421-MS4	Matrix Spike [1708241-01RE1]	0.275	20	1705977	100			
F710421-MSD1	Matrix Spike Dup [1708118-01]	0.256	20	1705977	100			
F710421-MSD2	Matrix Spike Dup [1708241-01]	0.265	20	1705977	100			
F710421-MSD3	Matrix Spike Dup [1708118-01RE1]	0.256	20	1705977	100			
F710421-MSD4	Matrix Spike Dup [1708241-01RE1]	0.265	20	1705977	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705412	DORM-4	06-Jan-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705977	MHg New Primary 100 ng/mL spike	06-Jan-20 00:00	1704707	Acetate Buffer	29-Jan-18 00:00
		15-Sep-18 00:00	1705427	Methanol, HPLC Grade	08-Sep-20 00:00
			1705837	25% KOH/Methanol	03-Feb-18 00:00
			1706016	Ethylating Agent (For Methyl Mercury Analysis)	08-Apr-18 00:00
			1706109	Acetate Buffer	11-Apr-18 00:00

PREPARATION BENCH SHEET

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708118-01	OB-01_17HC001_072517_POL_01_WB	0.254	20	QC	-	-	MS/MSD	
1708118-01RE1	OB-01_17HC001_072517_POL_01_WB	0.254	20	QC	-	-	MS/MSD Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708118-02	OB-01_17HC001_072517_POL_02_WB	0.265	20	-	-	-		
1708118-02RE1	OB-01_17HC001_072517_POL_02_WB	0.265	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708118-03	OB-01_17HC001_072517_POL_03_WB	0.288	20	-	-	-		
1708118-03RE1	OB-01_17HC001_072517_POL_03_WB	0.288	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708118-04	OB-01_17HC001_072517_POL_04_WB	0.256	20	-	-	-		
1708118-04RE1	OB-01_17HC001_072517_POL_04_WB	0.256	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708118-05	OB-01_17HC001_072517_POL_05_WB	0.258	20	-	-	-		
1708118-05RE1	OB-01_17HC001_072517_POL_05_WB	0.258	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708240-01	MM-MR_INT_17HC001_080117_POL_01_WB	0.268	20	-	-	-		
1708240-01RE1	MM-MR_INT_17HC001_080117_POL_01_WB	0.268	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708240-02	MM-MR_INT_17HC001_080117_POL_02_WB	0.285	20	-	-	-		
1708240-02RE1	MM-MR_INT_17HC001_080117_POL_02_WB	0.285	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708240-03	MM-MR_INT_17HC001_080117_POL_03_WB	0.275	20	-	-	-		
1708240-03RE1	MM-MR_INT_17HC001_080117_POL_03_WB	0.275	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708240-04	MM-MR_INT_17HC001_080117_POL_04_WB	0.273	20	-	-	-		
1708240-04RE1	MM-MR_INT_17HC001_080117_POL_04_WB	0.273	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708240-05	MM-MR_INT_17HC001_080117_POL_05_WB	0.268	20	-	-	-		

Due Date: 11/15/2017

PREPARATION BENCH SHEET

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

1708240-05RE1	MM-MR_INT_17HC001_080117_POL_05_WB	0.268	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-01	ES-02E_17HC001_073117_POL_01_WB	0.26	20	QC	-	-	MS/MSD	
1708241-01RE1	ES-02E_17HC001_073117_POL_01_WB	0.26	20	QC	-	-	MS/MSD Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-02	ES-02E_17HC001_073117_POL_02_WB	0.269	20	-	-	-		
1708241-02RE1	ES-02E_17HC001_073117_POL_02_WB	0.269	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-03	ES-02E_17HC001_073117_POL_03_WB	0.287	20	-	-	-		
1708241-03RE1	ES-02E_17HC001_073117_POL_03_WB	0.287	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-04	ES-02E_17HC001_073117_POL_04_WB	0.26	20	-	-	-		
1708241-04RE1	ES-02E_17HC001_073117_POL_04_WB	0.26	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-05	ES-02E_17HC001_073117_POL_05_WB	0.273	20	-	-	-		
1708241-05RE1	ES-02E_17HC001_073117_POL_05_WB	0.273	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-11	BFK_17HC001_073117_POL_01_WB	0.26	20	-	-	-		
1708241-11RE1	BFK_17HC001_073117_POL_01_WB	0.26	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-12	BFK_17HC001_073117_POL_02_WB	0.255	20	-	-	-		
1708241-12RE1	BFK_17HC001_073117_POL_02_WB	0.255	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-13	BFK_17HC001_073117_POL_03_WB	0.257	20	-	-	-		
1708241-13RE1	BFK_17HC001_073117_POL_03_WB	0.257	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-14	BFK_17HC001_073117_POL_04_WB	0.254	20	-	-	-		
1708241-14RE1	BFK_17HC001_073117_POL_04_WB	0.254	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2
1708241-15	BFK_17HC001_073117_POL_05_WB	0.258	20	-	-	-		
1708241-15RE1	BFK_17HC001_073117_POL_05_WB	0.258	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2

Due Date: 11/15/2017

PREPARATION BENCH SHEET

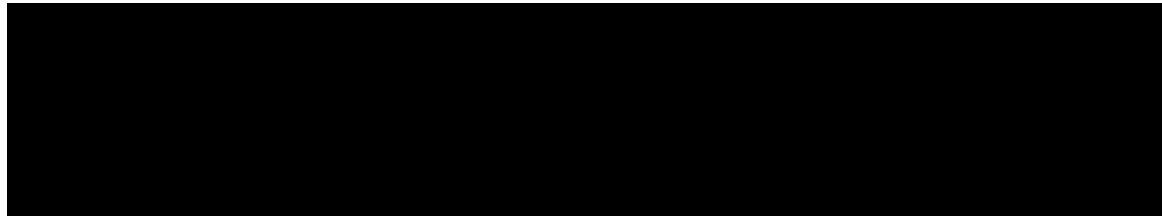
F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017



PREPARATION BENCH SHEET

2700-1

F710421

10/23/17 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710421-BLK1	Blank	0.25	20					
F710421-BLK2	Blank	0.25	20					
F710421-BLK3	Blank	0.25	20					
F710421-BLK4	Blank	0.282	20					Pre-homogenization Blank for 1708118/1708119
F710421-BLK5	Blank	0.27	20					Post-homogenization Blank for 1708118/1708119
F710421-BLK6	Blank	0.283	20					Pre-homogenization Blank for 1708240/1708241
F710421-BLK7	Blank	0.278	20					Pre-homogenization Blank for 1708240/1708241
F710421-BLK8	Blank	0.25	20					500X -
F710421-BLK9	Blank	0.25	20					500X -
F710421-BLKA	Blank	0.25	20					500X -
F710421-BLKB	Blank	0.282	20					500X -
F710421-BLKC	Blank	0.27	20					500X -
F710421-BLKD	Blank	0.283	20					500X -
F710421-BLKE	Blank	0.278	20					500X -
F710421-BS1	LCS	0.1259	20	1705412	125.9			
F710421-BS2	LCS	0.1259	20	1705412	125.9			
F710421-BS3	LCS	0.1259	20	1705412	125.9			1000X -
F710421-BSD1	LCS Dup	0.1275	20	1705412	127.5			
F710421-BSD2	LCS Dup	0.1275	20	1705412	127.5			
F710421-BSD3	LCS Dup	0.1275	20	1705412	127.5			1000X -
F710421-DUP1	Duplicate [1708118-01]	0.263	20					
F710421-DUP2	Duplicate [1708118-01RE1]	0.263	20					500X -
F710421-MS1	Matrix Spike [1708118-01]	0.262	20	1705977	100			

Due Date: 11/15/2017

PREPARATION BENCH SHEET

2700-1

10/23/17 DM

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

F710421-MS2	Matrix Spike [1708241-01]	0.275	20	1705977	100			
F710421-MS3	Matrix Spike [1708118-01RE1]	0.262	20	1705977	100			500X -
F710421-MS4	Matrix Spike [1708241-01RE1]	0.275	20	1705977	100			500X -
F710421-MSD1	Matrix Spike Dup [1708118-01]	0.256	20	1705977	100			
F710421-MSD2	Matrix Spike Dup [1708241-01]	0.265	20	1705977	100			
F710421-MSD3	Matrix Spike Dup [1708118-01RE1]	0.256	20	1705977	100			500X -
F710421-MSD4	Matrix Spike Dup [1708241-01RE1]	0.265	20	1705977	100			500X -

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
1705412	DORM-4	06-Jan-20 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1705977	MHg New Primary 100 ng/mL spike	06-Jan-20 00:00	1704707	Acetate Buffer	29-Jan-18 00:00
		15-Sep-18 00:00	1705427	Methanol, HPLC Grade	08-Sep-20 00:00
			1705837	25% KOH/Methanol	03-Feb-18 00:00
			1706016	Ethylating Agent (For Methyl Mercury Analysis)	08-Apr-18 00:00

1706109

PREPARATION BENCH SHEET

2700-1
10/23/17 DM

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708118-01	OB-01_17HC001_072517_POL_01_WB	0.254	20	QC	-	-	MS/MSD	
1708118-01RE1	OB-01_17HC001_072517_POL_01_WB	0.254	20	QC	-	-	MS/MSD Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708118-02	OB-01_17HC001_072517_POL_02_WB	0.265	20	-	-	-		
1708118-02RE1	OB-01_17HC001_072517_POL_02_WB	0.265	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708118-03	OB-01_17HC001_072517_POL_03_WB	0.288	20	-	-	-		
1708118-03RE1	OB-01_17HC001_072517_POL_03_WB	0.288	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708118-04	OB-01_17HC001_072517_POL_04_WB	0.256	20	-	-	-		
1708118-04RE1	OB-01_17HC001_072517_POL_04_WB	0.256	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708118-05	OB-01_17HC001_072517_POL_05_WB	0.258	20	-	-	-		
1708118-05RE1	OB-01_17HC001_072517_POL_05_WB	0.258	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708240-01	MM-MR_INT_17HC001_080117_POL_01_WB	0.268	20	-	-	-		
1708240-01RE1	MM-MR_INT_17HC001_080117_POL_01_WB	0.268	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708240-02	MM-MR_INT_17HC001_080117_POL_02_WB	0.285	20	-	-	-		
1708240-02RE1	MM-MR_INT_17HC001_080117_POL_02_WB	0.285	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708240-03	MM-MR_INT_17HC001_080117_POL_03_WB	0.275	20	-	-	-		
1708240-03RE1	MM-MR_INT_17HC001_080117_POL_03_WB	0.275	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708240-04	MM-MR_INT_17HC001_080117_POL_04_WB	0.273	20	-	-	-		
1708240-04RE1	MM-MR_INT_17HC001_080117_POL_04_WB	0.273	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2 500x
1708240-05	MM-MR_INT_17HC001_080117_POL_05_WB	0.268	20	-	-	-		

Due Date: 11/15/2017

PREPARATION BENCH SHEET

2700-1

10/23/17 DM

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

1708240-05RE1	MM-MR_INT_17HC001_080117_POL_05_WB	0.268	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-01	ES-02E_17HC001_073117_POL_01_WB	0.26	20	QC	-	-	MS/MSD		
1708241-01RE1	ES-02E_17HC001_073117_POL_01_WB	0.26	20	QC	-	-	MS/MSD Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-02	ES-02E_17HC001_073117_POL_02_WB	0.269	20	-	-	-			
1708241-02RE1	ES-02E_17HC001_073117_POL_02_WB	0.269	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-03	ES-02E_17HC001_073117_POL_03_WB	0.287	20	-	-	-			
1708241-03RE1	ES-02E_17HC001_073117_POL_03_WB	0.287	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-04	ES-02E_17HC001_073117_POL_04_WB	0.26	20	-	-	-			
1708241-04RE1	ES-02E_17HC001_073117_POL_04_WB	0.26	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-05	ES-02E_17HC001_073117_POL_05_WB	0.273	20	-	-	-			
1708241-05RE1	ES-02E_17HC001_073117_POL_05_WB	0.273	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-11	BFK_17HC001_073117_POL_01_WB	0.26	20	-	-	-			
1708241-11RE1	BFK_17HC001_073117_POL_01_WB	0.26	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-12	BFK_17HC001_073117_POL_02_WB	0.255	20	-	-	-			
1708241-12RE1	BFK_17HC001_073117_POL_02_WB	0.255	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-13	BFK_17HC001_073117_POL_03_WB	0.257	20	-	-	-			
1708241-13RE1	BFK_17HC001_073117_POL_03_WB	0.257	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-14	BFK_17HC001_073117_POL_04_WB	0.254	20	-	-	-			
1708241-14RE1	BFK_17HC001_073117_POL_04_WB	0.254	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X
1708241-15	BFK_17HC001_073117_POL_05_WB	0.258	20	-	-	-			
1708241-15RE1	BFK_17HC001_073117_POL_05_WB	0.258	20	-	-	-	Added 10/23/2017 by DM2	Added 10/23/2017 by DM2	500X

Due Date: 11/15/2017

PREPARATION BENCH SHEET

F710421

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2017

Due Date: 11/15/2017

Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)

Analyst:	DON MORAN	Sequence #:	7J24016
Reviewer:	0 <i>R 10/24/17</i>	Dataset ID #:	MHG27001-171023-1
Date:	10/24/2017	WO #:	VARIOUS
Batch #(s):	F710422, F710421	Client(s):	VARIOUS

Analyst Initials:

DM

Reviewer Initials:

R 10/24/17

- | | | | |
|--|--|-------------------------------|---|
| 9. ICV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 10. CCV % Recoveries 67-133% | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 11. Are the absolute value of the ICB and CCBs < PQL? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 13. LCS/LCSD or BS/BSD RPD (< 25%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 14. Water: Average of Preparation Blanks < 0.045 ng/L and standard deviation of 0.015 ng/L? | <input type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 15. Sediment/Tissue: Individually, are the Preparation Blanks < PQL for the matrix? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| 16. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done) | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 17. Is the correct 'Source' designated for MD/MS/MSD? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 18. For digested preps: was there a spike witness signature & date on the prep bench sheet? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 19. MD RPD/MT RSD(< 35%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 20. Is there one set of MS/MSD per every 10 samples? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 21. MS/MSD RPD(< 35%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 22. MS (AS) % Recoveries (65-130%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 23. MSD (ASD) % Recoveries (65-130%) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630) | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 25. Are all samples within instrument calibration range (or at maximum aliquot size)? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 26. For instrumental dilutions, is the dilution factor in excel correct? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Is the sample volume, diluents, and final volume of the dilution noted on benchsheet? | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 27. Dissolved < Total metals (if applicable) | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |
| 28. Effluent < Influent metals (visually confirm if needed) | <input type="checkbox"/> PASS | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____ | | | |

Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)

Analyst: DON MORAN	Sequence #: 7J24016
Reviewer: 0 <i>R 10/24/17</i>	Dataset ID #: MHG27001-171023-1
Date: 10/24/2017	WO #: VARIOUS
Batch #(s): F710422, F710421	Client(s): VARIOUS

Analyst Initials:

DM

Reviewer Initials:

R 10/24/17

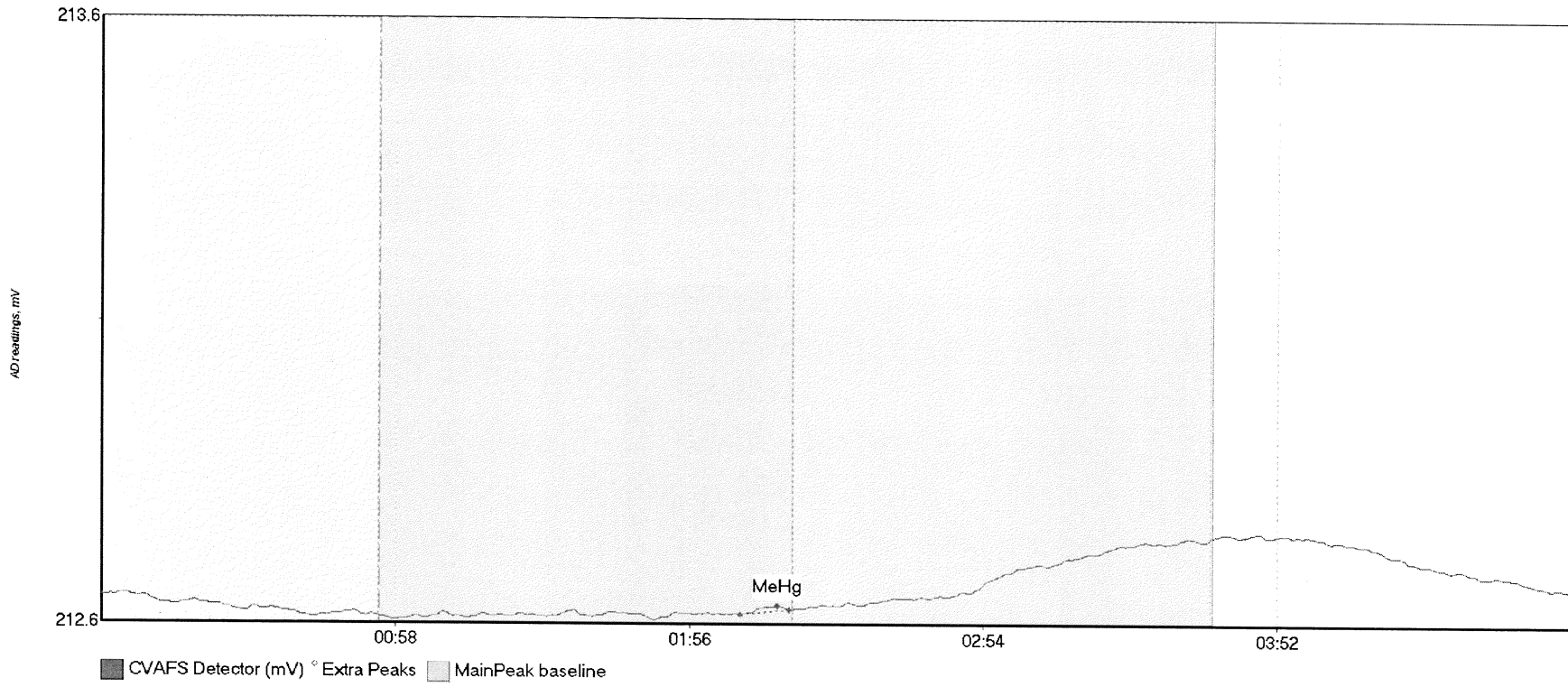
29. Are re-runs noted with reason? YES NO N/A
 Comments: _____
30. For failing QC (CCV, CCB, PB, BS/BSD, CAL): YES NO N/A
 Was a bubbler and trap test run before the analytical run continued?
 Comments: _____
31. Do re-run results compare to initial analysis (< 35% RPD)? YES NO N/A
 Comments: _____
32. Are qualifiers consistent with the data review flowcharts? YES NO N/A
 Comments: _____
33. Have non-reportable samples been imported into LIMS and clicked to non-reportable? YES NO N/A
 Comments: _____
34. Have re-extracts been created for non-reportable samples? YES NO N/A
35. Narrations in MMO box in LIMS?
 Comments: _____
36. Are there any HIGH QA projects within the data? YES NO
 If so, place dataset to the QA office.
37. Does the data set need scanning? YES N/A
- Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs
38. Date of analyst IDOC/CDOC: 6/13/2017 IDOC/CDOC within last 12 months? YES NO
39. Date of analyst's SOP reading: 2/9/2017 Current SOP revision? YES NO
40. Date of LOD: 4/24/2017 LOD within last 3 months (within 12 months for MDN)? YES NO N/A
41. Date of LOQ: 4/24/2017 LOQ within last 3 months (within 12 months for MDN)? YES NO N/A
42. If MDN samples, date of last MDL study: _____
43. MDL study within last 12 months? YES NO N/A
- Data can not be reported without a current IDOC/CDOC, LOD or LOQ.**
- Additional Comments: YES NO

MethylMercury EPA1630 Operat DM BlankSub: Calib Eqn: Run Date: ##### Blank SD: Workst MHG27 CalibFactor: Status: Calblank error: Zero Pe: Run Time: 0:00:00 Blank RSD%: Methoc 2010-01 R: R?: CalibAnalyte: CF SD: Descrif MHG27001-171023-1 CF RSD%:

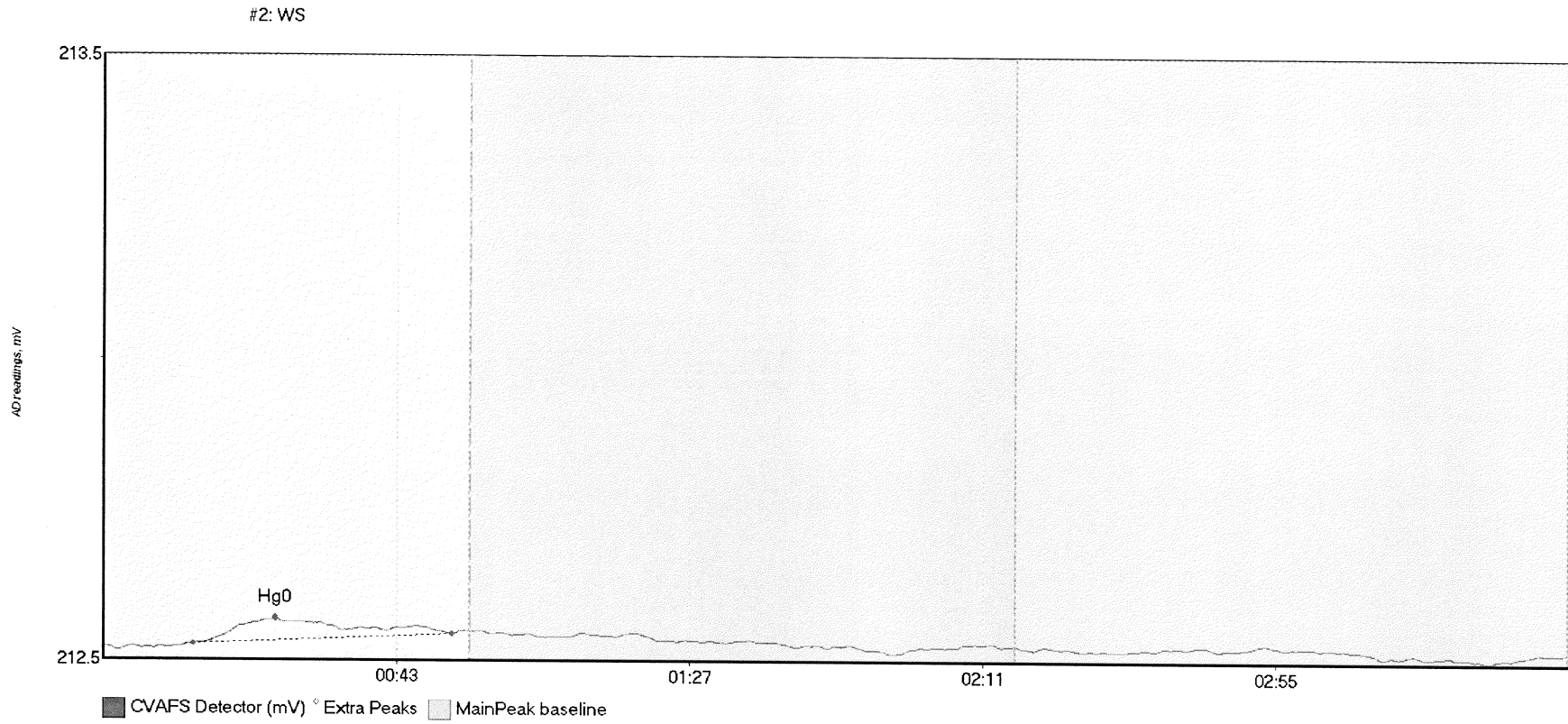
Sample/ID	Locator	Rinse	Dilute	Blank	ConcHq(p)	ConcMeHg	ConcHq2(p)	ConcPrHq(r)	Rec%	QA	RawData	RunEnd	PeakHq0 (Raw)	PeakMeHg (R)	PeakHq2(Raw)	PeakPrHq(Raw)	Control (etf)	Flags	RunCount
Clean																			
WS	A1										26855-1.RAW	11:08:29	0.00	0.51	0.00	0.00	cleandry	OK	1
SEQ-1BL1	A2			1							26856-1.RAW	11:19:00	7.07	0.00	0.00	0.00	psample10	OK	1
SEQ-CAL1	A3			1							26857-1.RAW	11:29:31	6.28	0.00	6.52	0.00	psample10	OK	1
SEQ-CAL2	A4			1							26858-1.RAW	11:40:01	4.38	22.10	0.00	0.00	psample10	OK	1
SEQ-CAL3	A5			1							26859-1.RAW	11:50:32	7.39	95.18	0.81	0.00	psample10	CT	1
SEQ-CAL4	A6			1							26860-1.RAW	12:01:03	8.99	598.88	10.47	0.00	psample10	CT	1
SEQ-CAL5	A7			1							26861-1.RAW	12:11:33	4.72	1048.39	32.56	0.00	psample10	OK	1
SEQ-ICV1	A8			1							26862-1.RAW	12:22:04	16.74	2248.59	37.21	0.00	psample10	CT	1
SEQ-ICB1	A9			1							26863-1.RAW	12:32:35	3.99	269.01	0.23	0.00	psample10	OK	1
F710422-BS1	A12		1000								26864-1.RAW	12:43:05	4.93	1.65	0.57	0.00	psample10	CT	1
F710422-BSD1	A13		1000								26865-1.RAW	12:53:36	3.67	1011.88	121.97	0.00	psample10	OK	1
F710421-BS3	A10		1000								26866-1.RAW	13:04:07	6.91	1057.63	130.24	0.00	psample10	OK	1
F710421-BSD3	A11		1000								26867-1.RAW	13:14:37	4.36	923.22	108.89	0.00	psample10	OK	1
F710422-BLK1	A14		500								26868-1.RAW	13:25:08	5.14	933.19	114.52	0.00	psample10	OK	1
F710422-BLK2	A15		500								26869-1.RAW	13:35:39	2.84	3.71	1.90	0.00	psample10	OK	1
F710422-BLK3	A16		500								26870-1.RAW	13:46:10	2.07	0.00	0.00	0.00	psample10	OK	1
*F710422-BLK4	A17		500								26871-1.RAW	13:56:40	2.41	1.46	7.19	0.00	psample10	OK	1
F710422-DUP1	A18		500								26872-1.RAW	14:07:11	3.78	0.00	3.40	0.00	psample10	CT	1
F710422-MS1	A19		500								26873-1.RAW	14:17:41	5.11	224.96	302.50	0.00	psample10	OK	1
SEQ-CCV1	A20		1								26874-1.RAW	14:28:12	13.48	778.26	303.03	0.00	psample10	OK	1
SEQ-CCB1	A21		1								26875-1.RAW	14:38:43	8.22	251.53	0.00	0.00	psample10	CT	1
F710422-MSD1	B1		500								26876-1.RAW	14:49:14	2.98	0.00	0.00	0.00	psample10	OK	1
F710422-MS2	B2		500								26877-1.RAW	14:59:44	9.52	819.16	306.46	0.00	psample10	CT	1
F710422-MSD2	B3		500								26878-1.RAW	15:10:15	7.60	695.85	198.12	0.00	psample10	OK	1
1708240-06	B4		500								26879-1.RAW	15:20:46	10.67	649.81	187.38	0.00	psample10	OK	1
1708240-07	B5		500								26880-1.RAW	15:31:16	10.64	226.61	229.53	0.00	psample10	OK	1
1708240-08	B6		500								26881-1.RAW	15:41:47	13.08	87.36	478.45	0.00	psample10	OK	1
1708240-09	B7		500								26882-1.RAW	15:52:18	10.01	161.10	293.51	0.00	psample10	OK	1
1708240-10	B8		500								26883-1.RAW	16:02:48	9.46	64.49	223.13	0.00	psample10	OK	1
1708240-11	B9		500								26884-1.RAW	16:13:19	11.02	233.22	240.27	0.00	psample10	OK	1
1708240-12	B10		500								26885-1.RAW	16:23:50	10.22	190.23	166.29	0.00	psample10	CT	1
SEQ-CCV2	B11		1								26886-1.RAW	16:34:20	9.04	131.76	174.95	0.00	psample10	OK	1
SEQ-CCB2	B12		1								26887-1.RAW	16:44:51	8.29	227.78	1.20	0.00	psample10	CT	1
1708240-13	B13		500								26888-1.RAW	16:55:22	7.15	1.63	3.28	0.00	psample10	OK	1
1708240-14	B14		500								26889-1.RAW	17:05:52	4.11	122.57	154.21	0.00	psample10	OK	1
1708240-15	B15		500								26890-1.RAW	17:16:23	7.29	128.35	150.31	0.00	psample10	OK	1
1710535-02	B16		500								26891-1.RAW	17:26:54	9.36	157.87	204.16	0.00	psample10	OK	1
1710626-01	B17		500								26892-1.RAW	17:37:24	6.08	276.79	3.17	0.00	psample10	OK	1
F710421-BLK8	B18		500								26893-1.RAW	17:47:55	9.35	75.51	386.86	0.00	psample10	OK	1
F710421-BLK9	B19		500								26894-1.RAW	17:58:26	3.77	0.00	10.09	0.00	psample10	OK	1
F710421-BLK A	B20		500								26895-1.RAW	18:08:56	2.88	0.00	4.42	0.00	psample10	OK	1
*F710421-BLK B	B21		500								26896-1.RAW	18:19:27	2.57	0.00	5.39	0.00	psample10	OK	1
*F710421-BLK C	C1		500								26897-1.RAW	18:29:58	2.78	0.00	15.28	0.00	psample10	OK	1
SEQ-CCV3	C2		1								26898-1.RAW	18:40:28	5.46	0.00	4.04	0.00	psample10	CT	1
SEQ-CCB3	C3		1								26899-1.RAW	18:50:59	6.21	242.66	3.64	0.00	psample10	CT	1
*F710421-BLK D	C4		500								26900-1.RAW	19:01:31	4.96	0.00	3.81	0.00	psample10	CT	1
*F710421-BLK E	C5		500								26901-1.RAW	19:12:02	3.76	0.00	0.00	0.00	psample10	OK	1
F710421-DUP2	C6		500								26902-1.RAW	19:22:32	5.16	0.00	5.87	0.00	psample10	OK	1
F710421-MS3	C7		500								26903-1.RAW	19:33:03	3.90	130.01	256.09	0.00	psample10	OK	1
F710421-MSD3	C8		500								26904-1.RAW	19:43:34	6.62	714.19	291.92	0.00	psample10	OK	1
F710421-MS4	C9		500								26905-1.RAW	19:54:05	10.42	689.63	280.91	0.00	psample10	OK	1
F710421-MSD4	C10		500								26906-1.RAW	20:04:35	14.32	685.13	539.44	0.00	psample10	OK	1
1708118-01RE1	C11		500								26907-1.RAW	20:15:06	13.99	677.20	480.20	0.00	psample10	CT	1
1708118-02RE1	C12		500								26908-1.RAW	20:25:37	9.81	130.52	267.17	0.00	psample10	CT	1
1708118-03RE1	C13		500								26909-1.RAW	20:36:08	8.67	103.62	237.03	0.00	psample10	OK	1
SEQ-CCV4	C14		1								26910-1.RAW	20:46:38	12.14	189.70	294.35	0.00	psample10	CT	1
SEQ-CCB4	C15		1								26911-1.RAW	20:57:09	3.93	251.68	1.60	0.00	psample10	OK	1
1708118-04RE1	C16		500								26912-1.RAW	21:07:40	3.59	0.00	2.41	0.00	psample10	OK	1
1708118-05RE1	C17		500								26913-1.RAW	21:18:11	9.47	138.47	261.11	0.00	psample10	OK	1
1708240-01RE1	C18		500								26914-1.RAW	21:28:41	11.66	165.02	304.68	0.00	psample10	CT	1
1708240-02RE1	C19		500								26915-1.RAW	21:39:12	12.21	105.10	413.67	0.00	psample10	CT	1
1708240-03RE1	C20		500								26916-1.RAW	21:49:43	13.50	61.17	344.52	0.00	psample10	OK	1
1708240-04RE1	C21		500								26917-1.RAW	22:00:14	7.37	81.17	304.95	0.00	psample10	OK	1
1708240-05RE1	A1		500								26918-1.RAW	22:10:44	13.01	110.10	590.35	0.00	psample10	CT	1
1708241-01RE1	A2		500								26919-1.RAW	22:21:15	13.59	84.78	509.21	0.00	psample10	OK	1
1708241-02RE1	A3		500								26920-1.RAW	22:31:46	5.03	83.44	71.19	0.00	psample10	OK	1
1708241-03RE1	A4		500								26921-1.RAW	22:42:17	6.15	165.28	179.98	0.00	psample10	OK	1
SEQ-CCV5	A5		1								26922-1.RAW	22:52:47	11.31	169.80	312.66	0.00	psample10	CT	1
SEQ-CCB5	A6		1								26923-1.RAW	23:03:18	6.93	269.03	4.57	0.00	psample10	OK	1
1708241-04RE1	A7		500								26924-1.RAW	23:13:49	4.99	0.00	3.05	0.00	psample10	OK	1
1708241-05RE1	A8		500								26925-1.RAW	23:24:19	9.56	240.26	350.79	0.00	psample10	OK	1
1708241-11RE1	A9		500								26926-1.RAW	23:34:50	14.06	153.08	876.27	0.00	psample10	CT	1
1708241-12RE1	A10		500								26927-1.RAW	23:45:21	6.88	128.74	147.46	0.00	psample10	OK	1
											26928-1.RAW	23:55:52	7.01	115.14	185.07	0.00	psample10	OK	1

1708241-13RE1	A11	500																		
1708241-14RE1	A12	500	26929-1.RAW	0:06:23	9.66	106.42	78.53	0.00	psample10	OK	1									
1708241-15RE1	A13	500	26930-1.RAW	0:16:53	6.76	44.90	127.60	0.00	psample10	OK	1									
SEQ-CCV6	A14	1	26931-1.RAW	0:27:24	7.17	127.98	229.20	0.00	psample10	OK	1									
SEQ-CCB6	A15	1	26932-1.RAW	0:37:55	8.71	268.68	99.38	0.00	psample10	OK	1									
			26933-1.RAW	0:48:25	4.73	0.00	2.49	0.00	psample10	OK	1									

#1: Clean

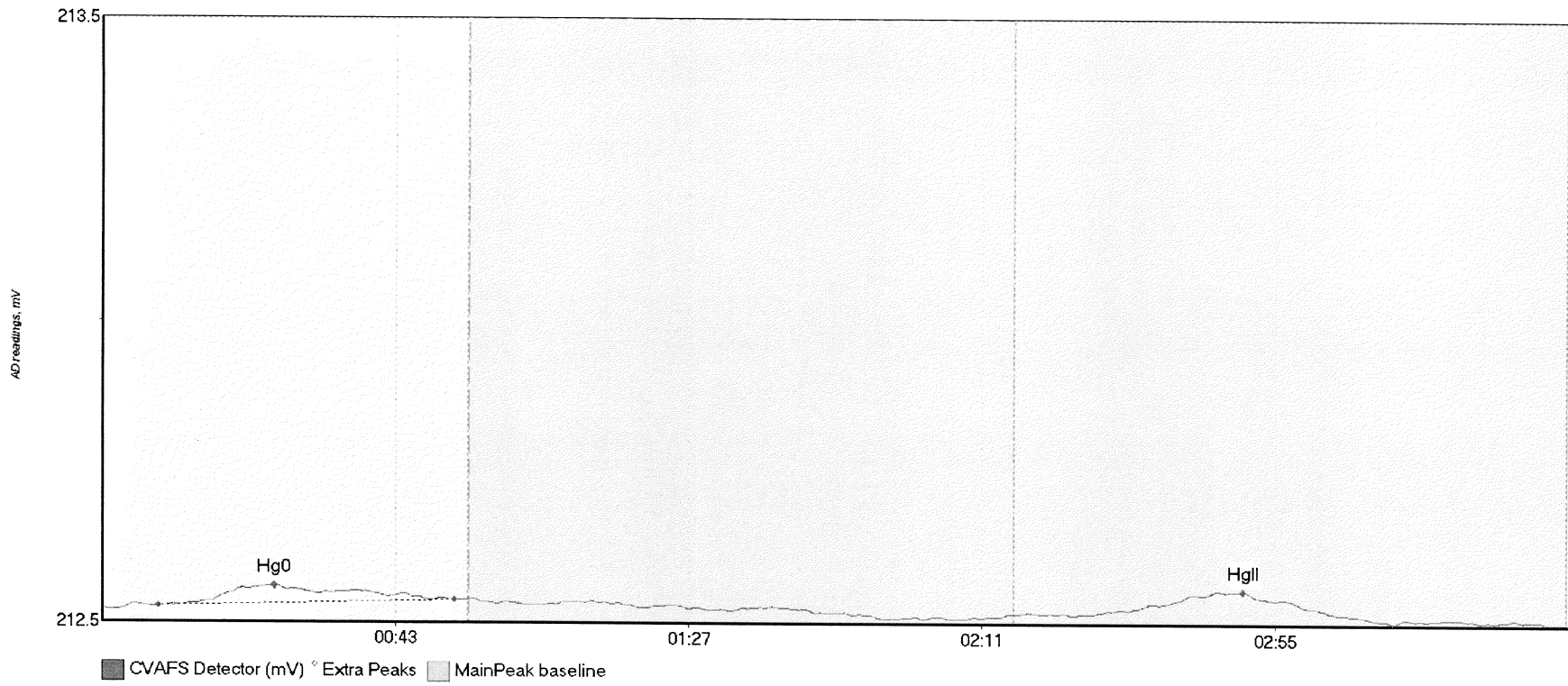


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean	0.507	126.5	136.2	212.64	212.65	133.9	0.014	OK	212.6722	0.00	0.01	017



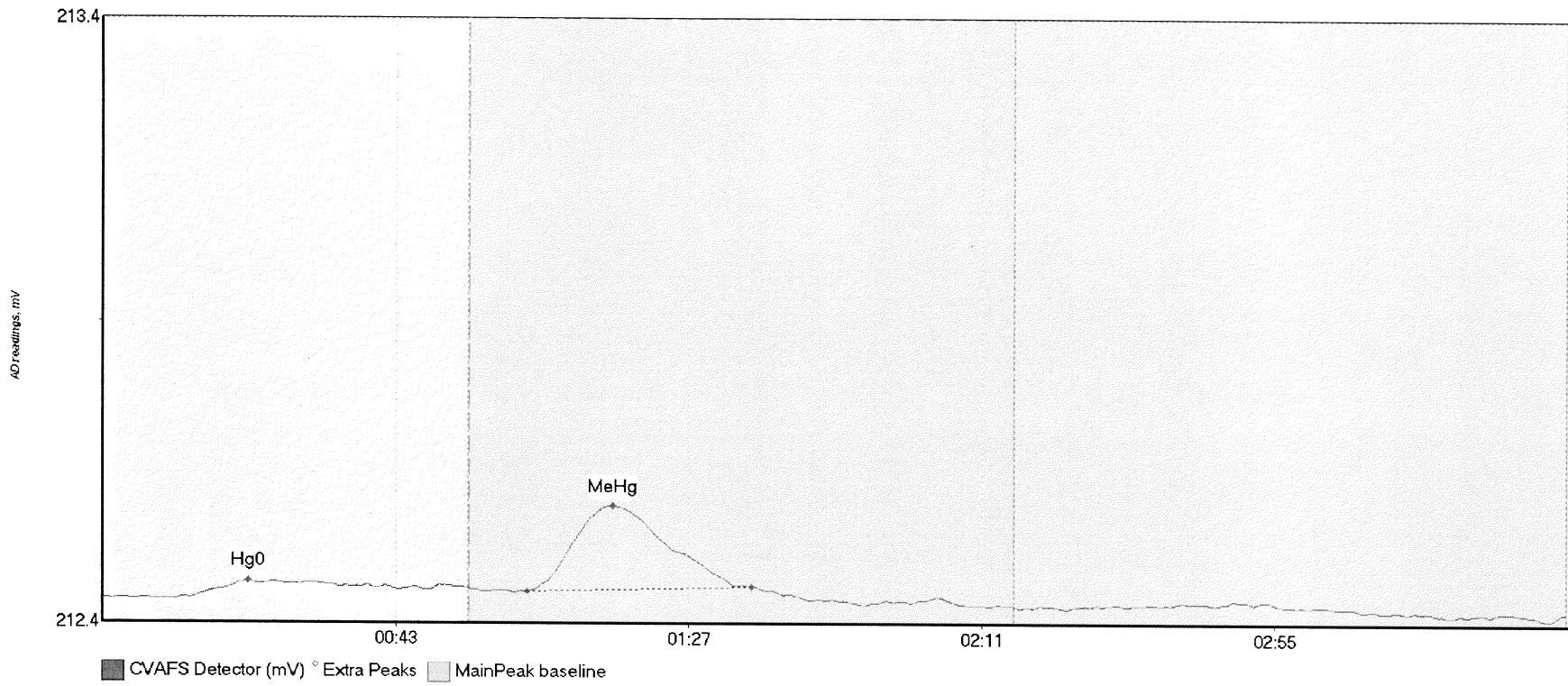
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS	7.073	13.4	52.3	212.56	212.57	25.7	0.042	OK	212.5524	0.00	-0.01	017

#3: SEQ-IBL1



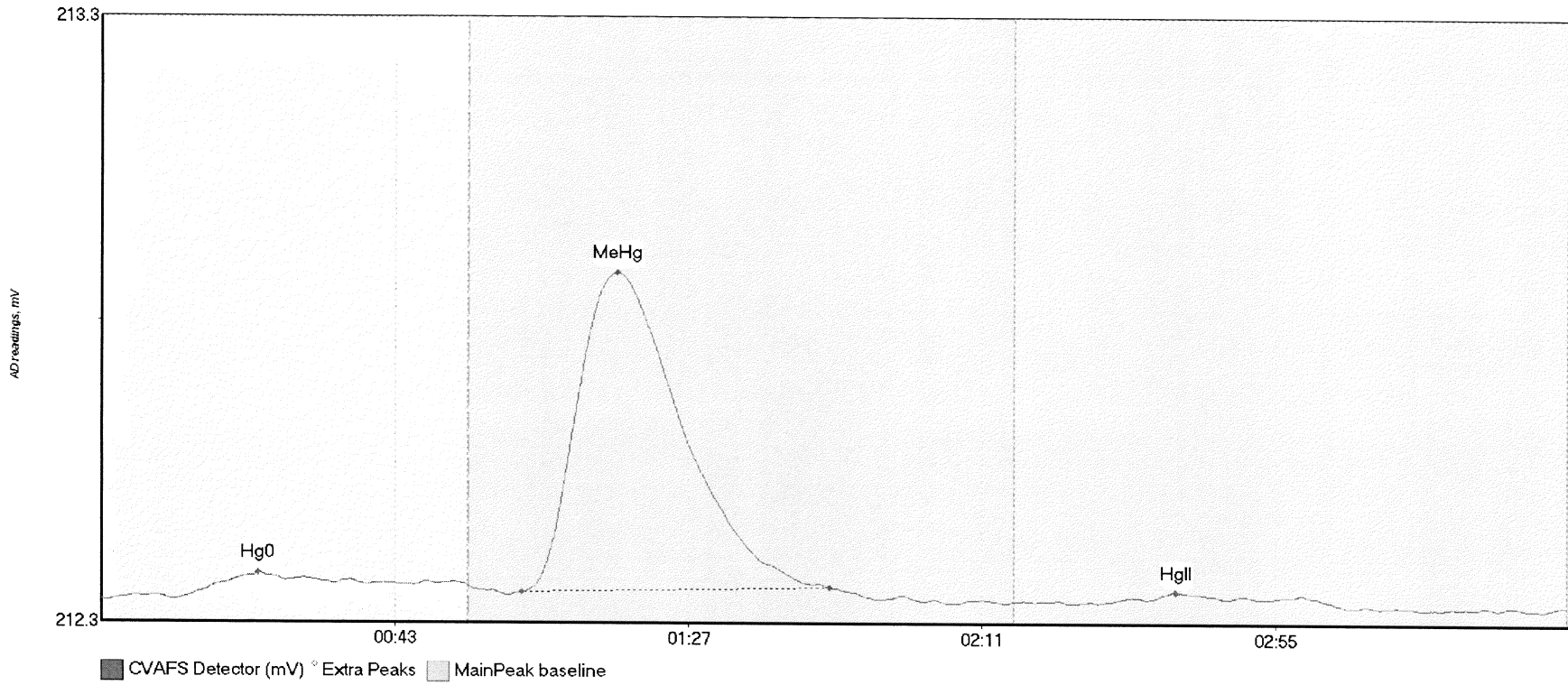
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	6.284	8.5	52.8	212.50	212.51	25.8	0.036	OK	212.4941	0.00	-0.02	
SEQ-IBL1 HgII	6.525	149.8	184.5	212.49	212.49	171.2	0.037	OK	212.4941	0.00	-0.02	017

#4: SEQ-CAL1



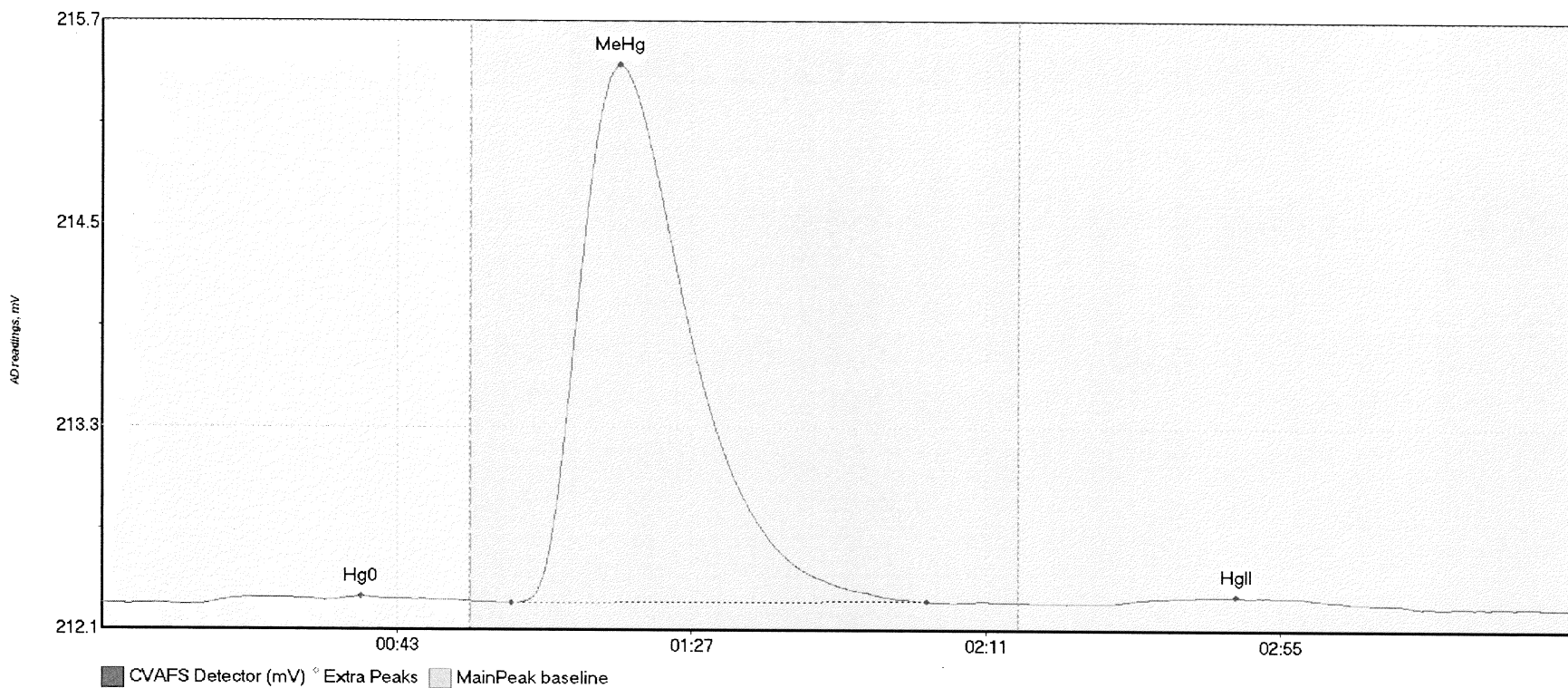
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	4.376	13.1	48.9	212.42	212.44	21.9	0.027	OK	212.4204	0.00	-0.02	
SEQ-CAL1 MeHg	22.096	63.7	97.4	212.43	212.44	76.6	0.142	OK	212.4204	0.00	-0.02	017

#5: SEQ-CAL2



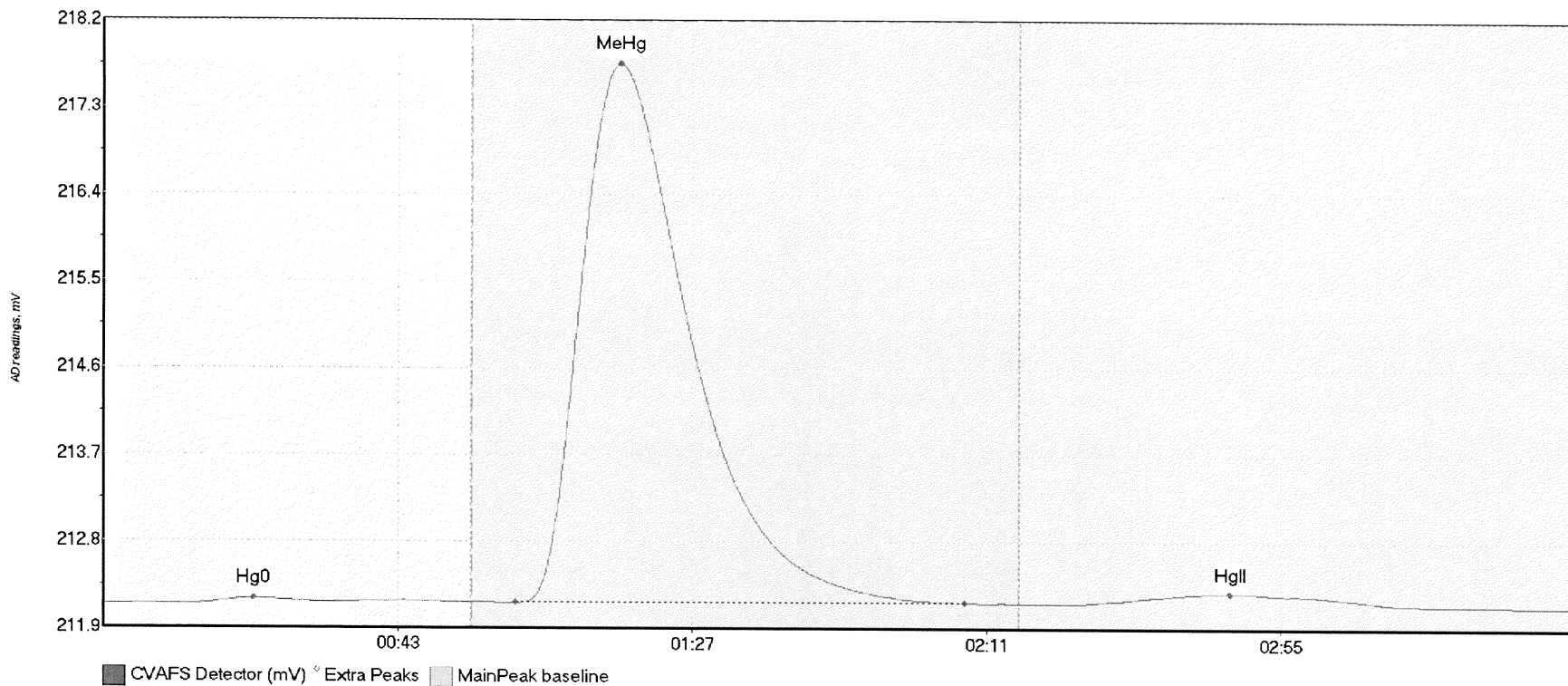
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	7.386	10.9	55.0	212.34	212.37	23.5	0.043	CT	212.3426	0.00	-0.01	
SEQ-CAL2 MeHg	95.176	63.0	109.2	212.35	212.36	77.3	0.530	OK	212.3426	0.00	-0.01	017
SEQ-CAL2 HgII	0.806	156.8	168.8	212.35	212.35	161.2	0.013	OK	212.3426	0.00	-0.01	

#6: SEQ-CAL3



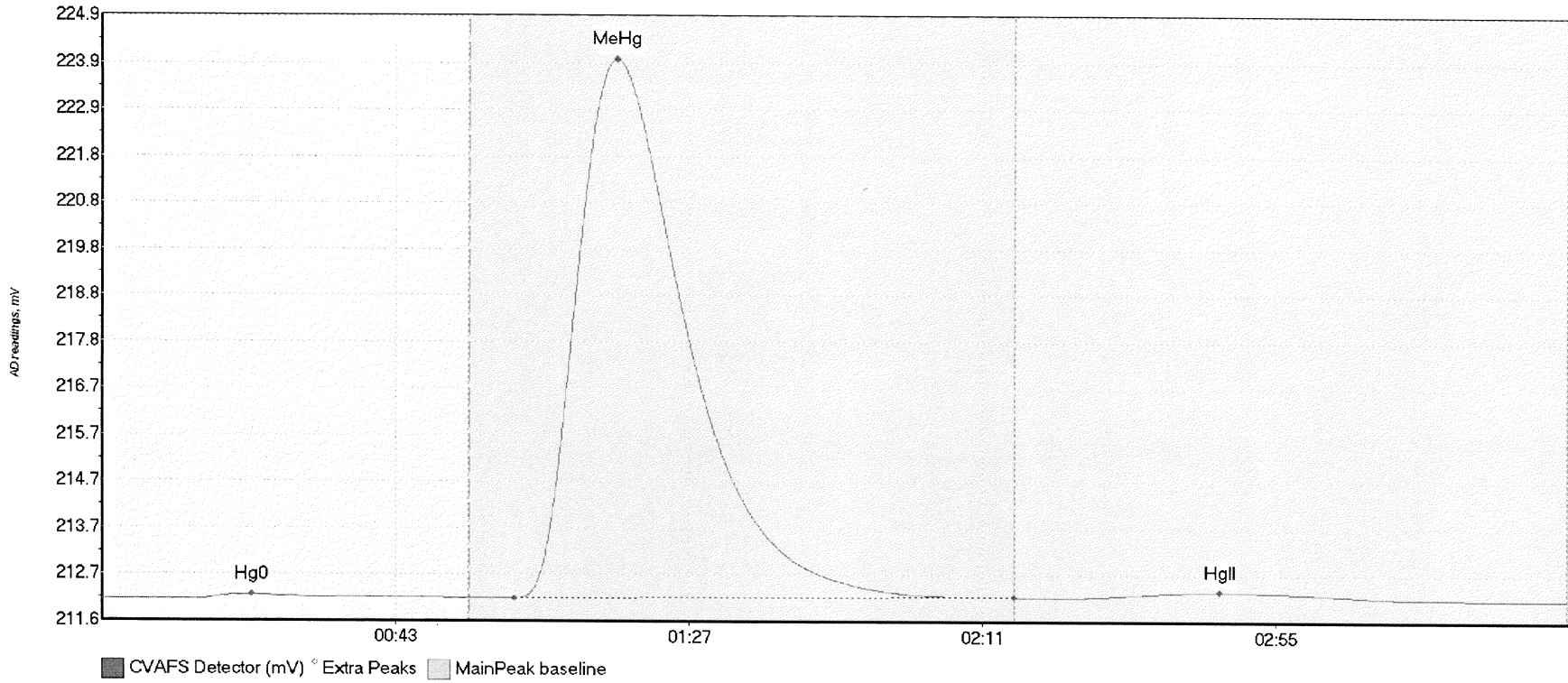
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	8.989	14.0	55.0	212.27	212.29	38.6	0.047	CT	212.2781	0.00	-0.02	
SEQ-CAL3 MeHg	598.877	61.1	123.2	212.28	212.29	77.3	3.134	OK	212.2781	0.00	-0.02	
SEQ-CAL3 HgII	10.470	150.0	187.6	212.28	212.28	169.4	0.040	OK	212.2781	0.00	-0.02	

#7: SEQ-CAL4



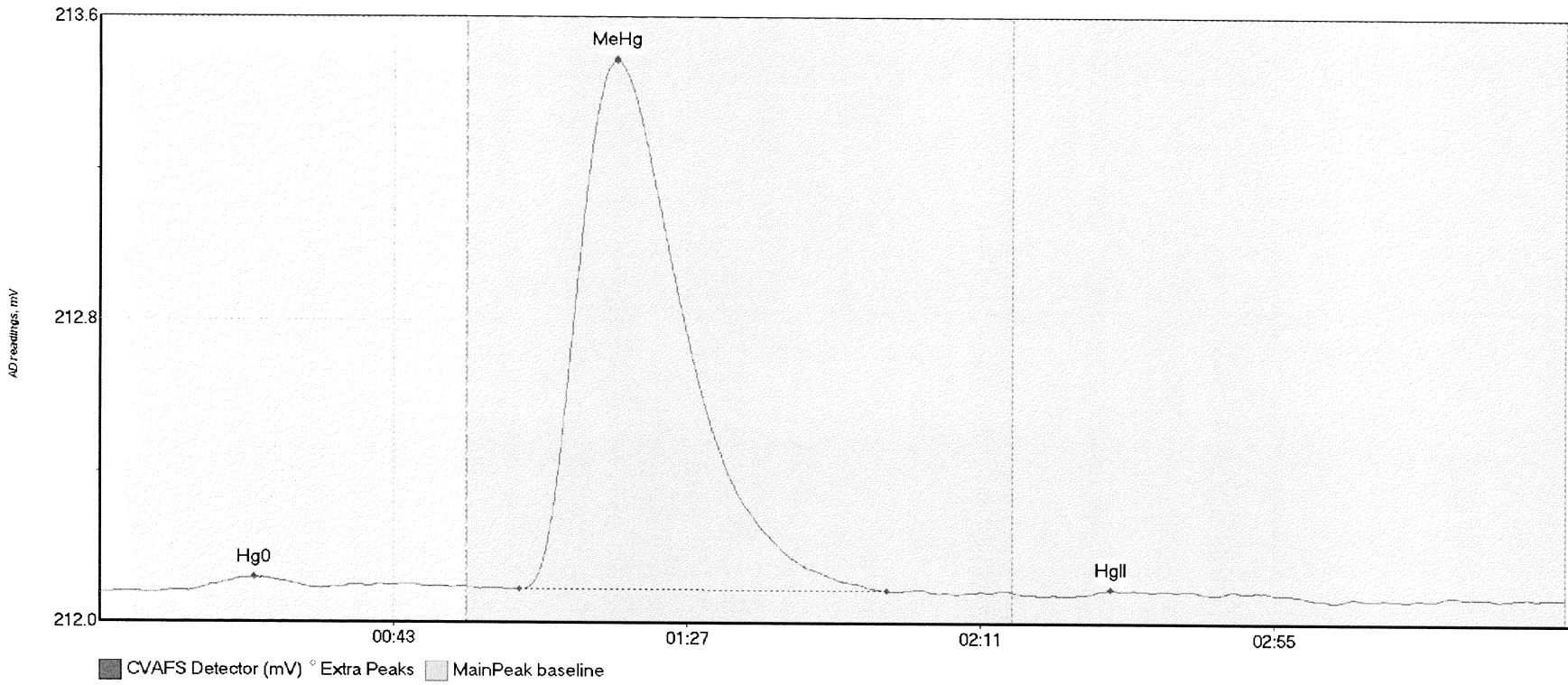
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	4.718	13.8	34.8	212.19	212.20	22.5	0.050	OK	212.1886	0.00	-0.02	
SEQ-CAL4 MeHg	1048.395	61.6	128.8	212.20	212.20	77.3	5.542	OK	212.1886	0.00	-0.02	
SEQ-CAL4 HgII	32.555	145.9	193.8	212.20	212.19	168.4	0.108	OK	212.1886	0.00	-0.02	

#8: SEQ-CAL5



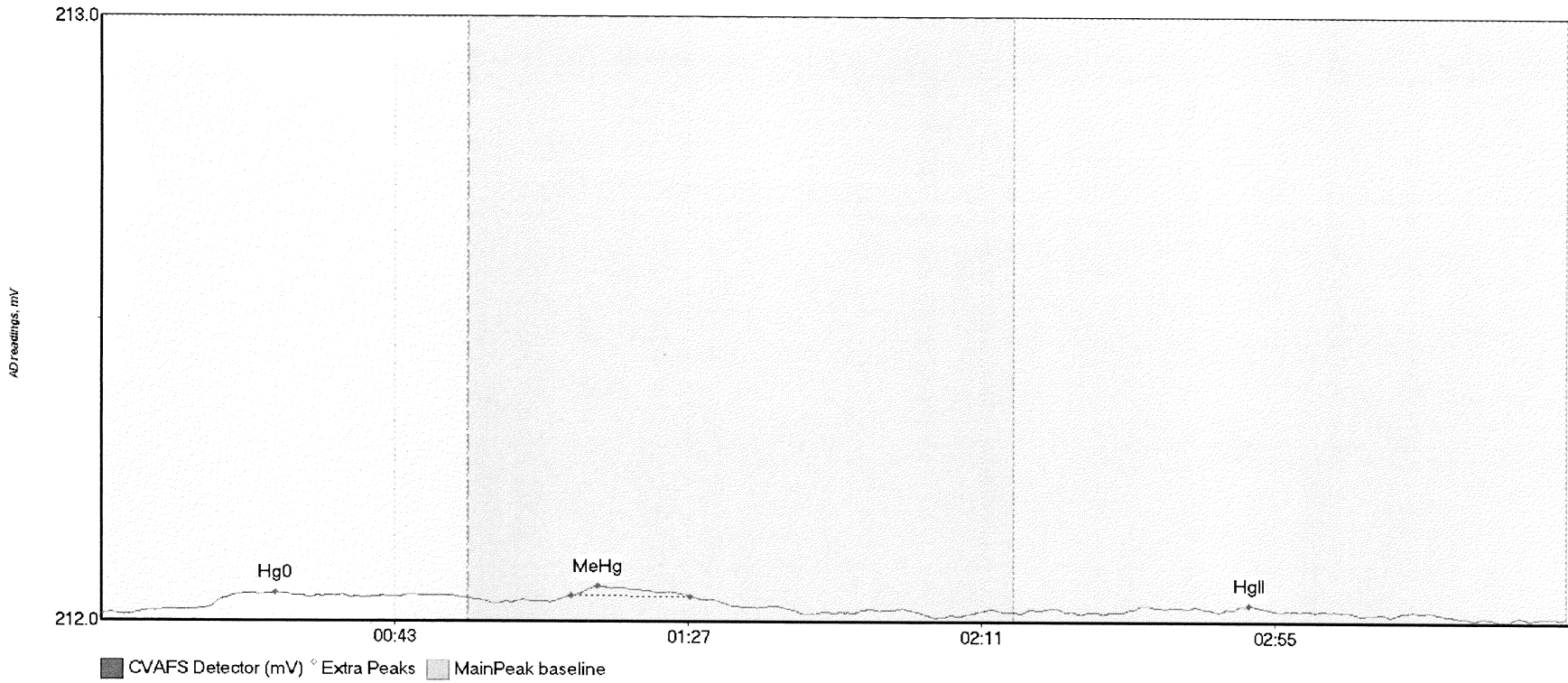
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	16.742	11.7	54.8	212.12	212.15	22.5	0.096	OK	212.1208	0.00	0.01	
SEQ-CAL5 MeHg	2248.586	61.7	136.8	212.14	212.18	77.2	11.807	CT	212.1208	0.00	0.01	017
SEQ-CAL5 HgII	37.213	147.6	195.7	212.18	212.15	167.6	0.119	OK	212.1208	0.00	0.01	

#9: SEQ-ICV1



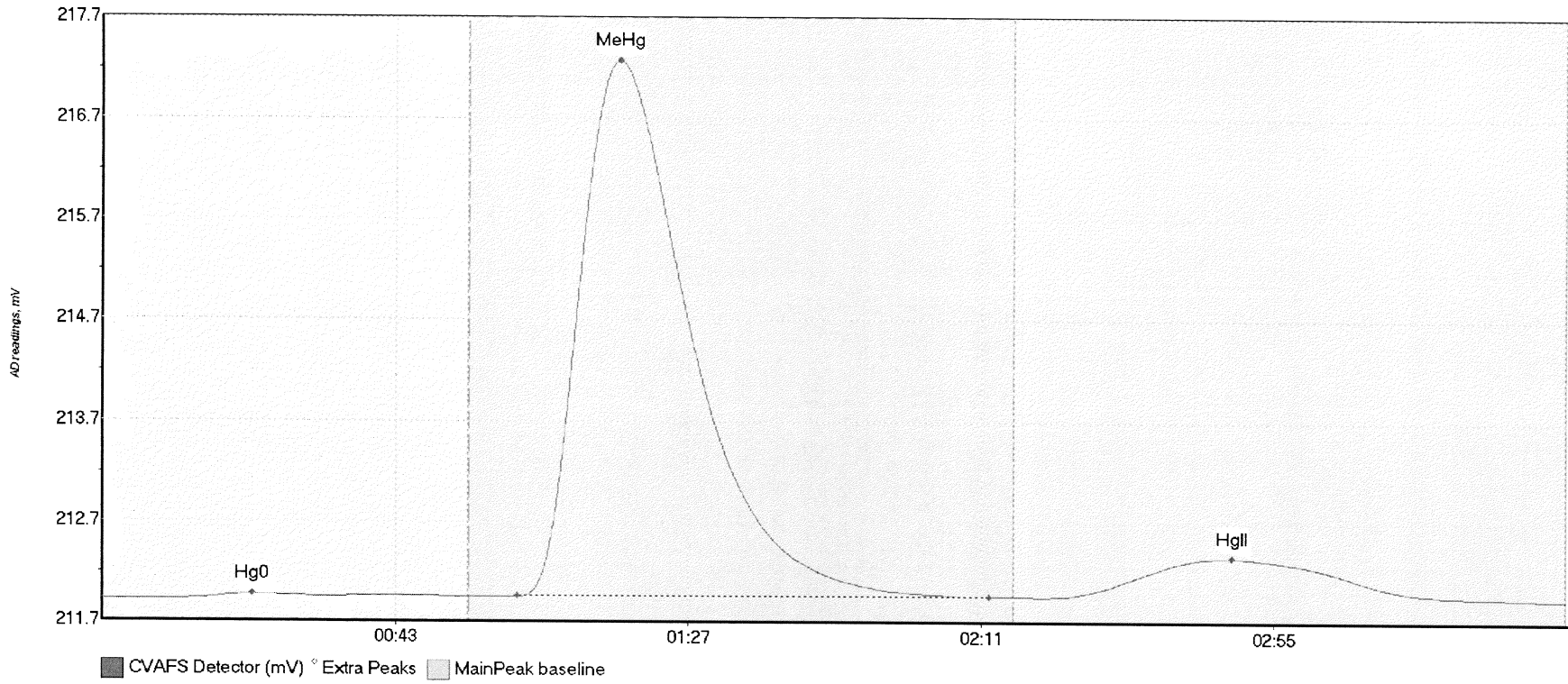
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-ICV1 Hg0	3.988	8.8	33.2	212.06	212.07	23.2	0.041	OK	212.0602	0.00	-0.01	
SEQ-ICV1 MeHg	269.005	62.9	118.0	212.07	212.07	77.4	1.457	OK	212.0602	0.00	-0.01	
SEQ-ICV1 HgII	0.225	147.8	153.6	212.06	212.07	151.6	0.013	OK	212.0602	0.00	-0.01	

#10: SEQ-ICB1



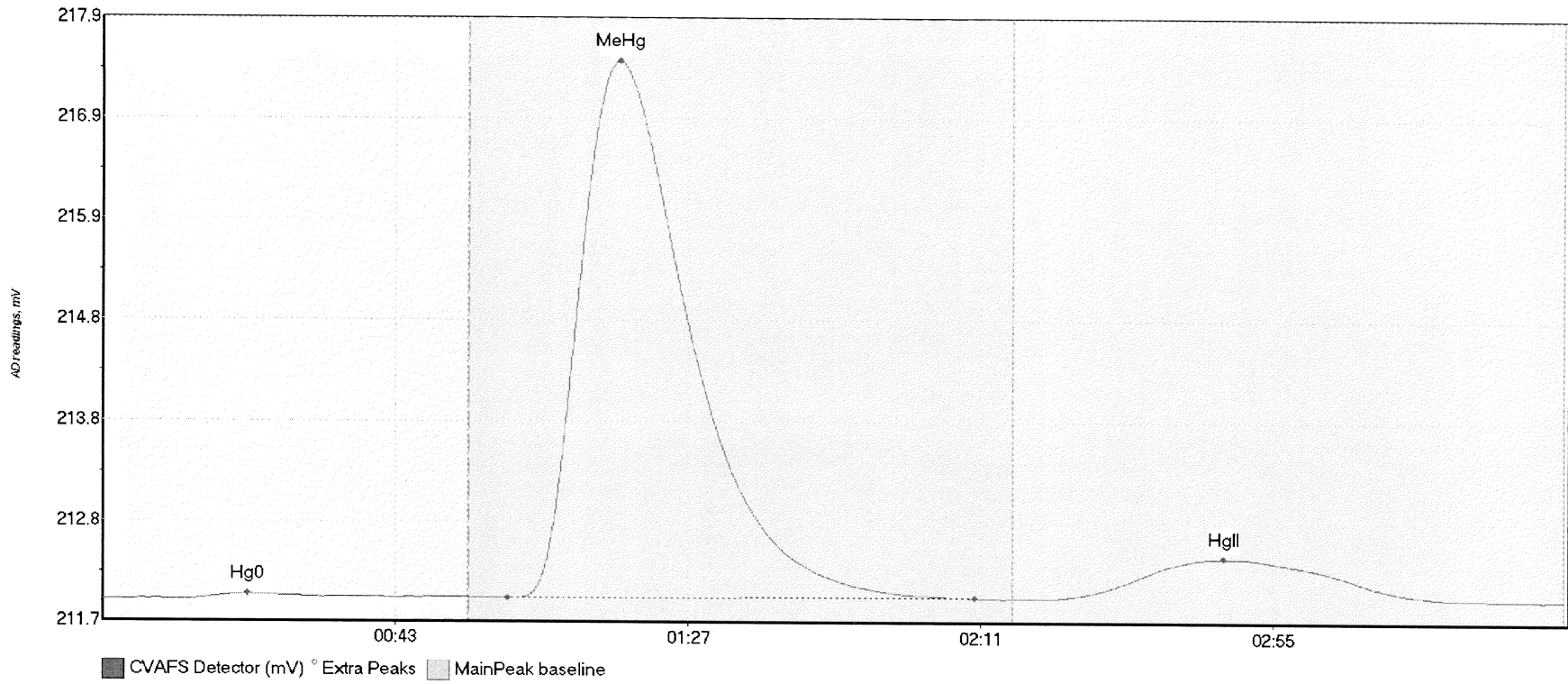
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	4.931	8.3	55.0	212.01	212.03	26.1	0.030	CT	212.0003	0.00	0.00	
SEQ-ICB1 MeHg	1.646	70.4	88.3	212.03	212.03	74.5	0.016	OK	212.0003	0.00	0.00	
SEQ-ICB1 HgII	0.565	167.6	176.9	212.00	212.00	172.2	0.011	OK	212.0003	0.00	0.00	

#11: F710422-BS1



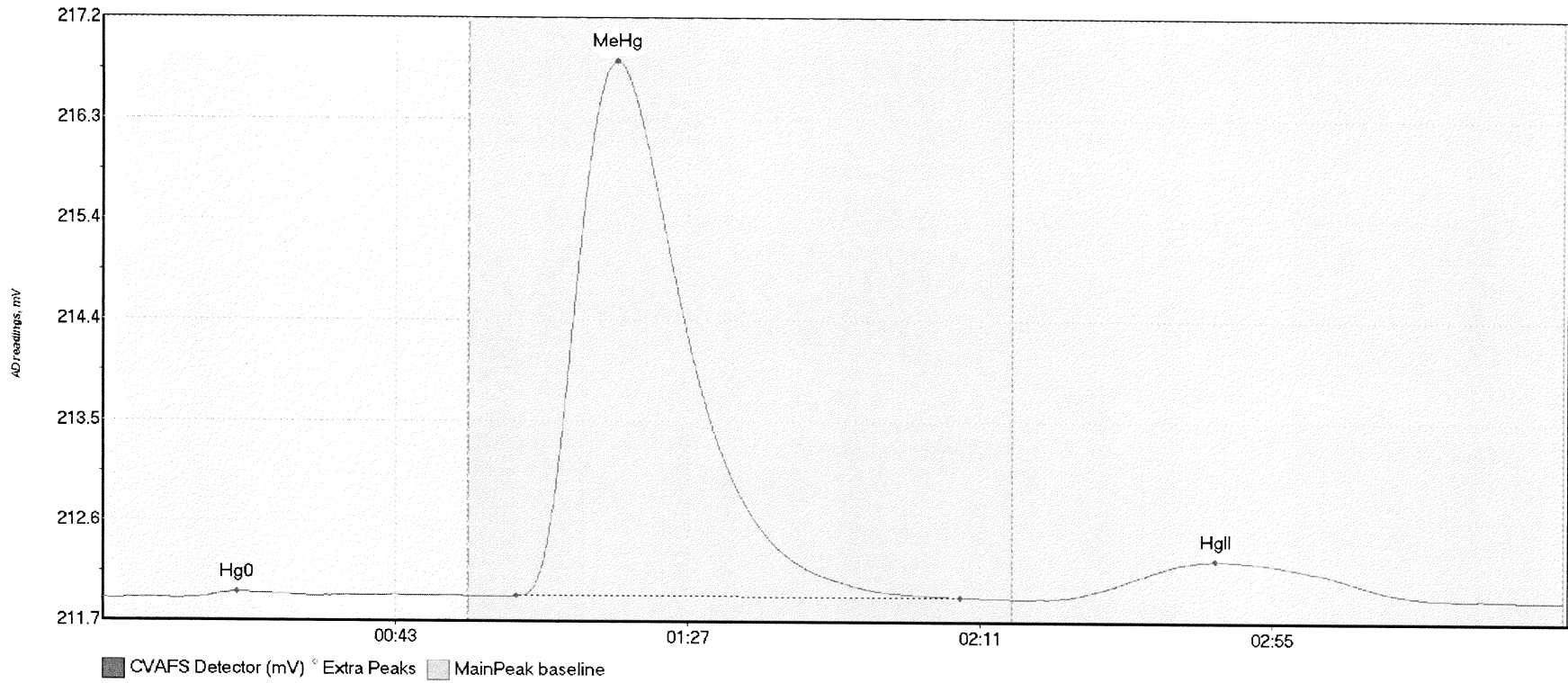
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-BS1 Hg0	3.670	14.7	34.3	211.97	211.99	22.6	0.043	OK	211.9651	0.00	0.01	
F710422-BS1 MeH	1011.881	62.3	133.1	211.99	211.99	77.7	5.280	OK	211.9651	0.00	0.01	
F710422-BS1 HgI	121.966	143.9	204.8	212.00	211.99	169.8	0.391	OK	211.9651	0.00	0.01	

#12: F710422-BSD1



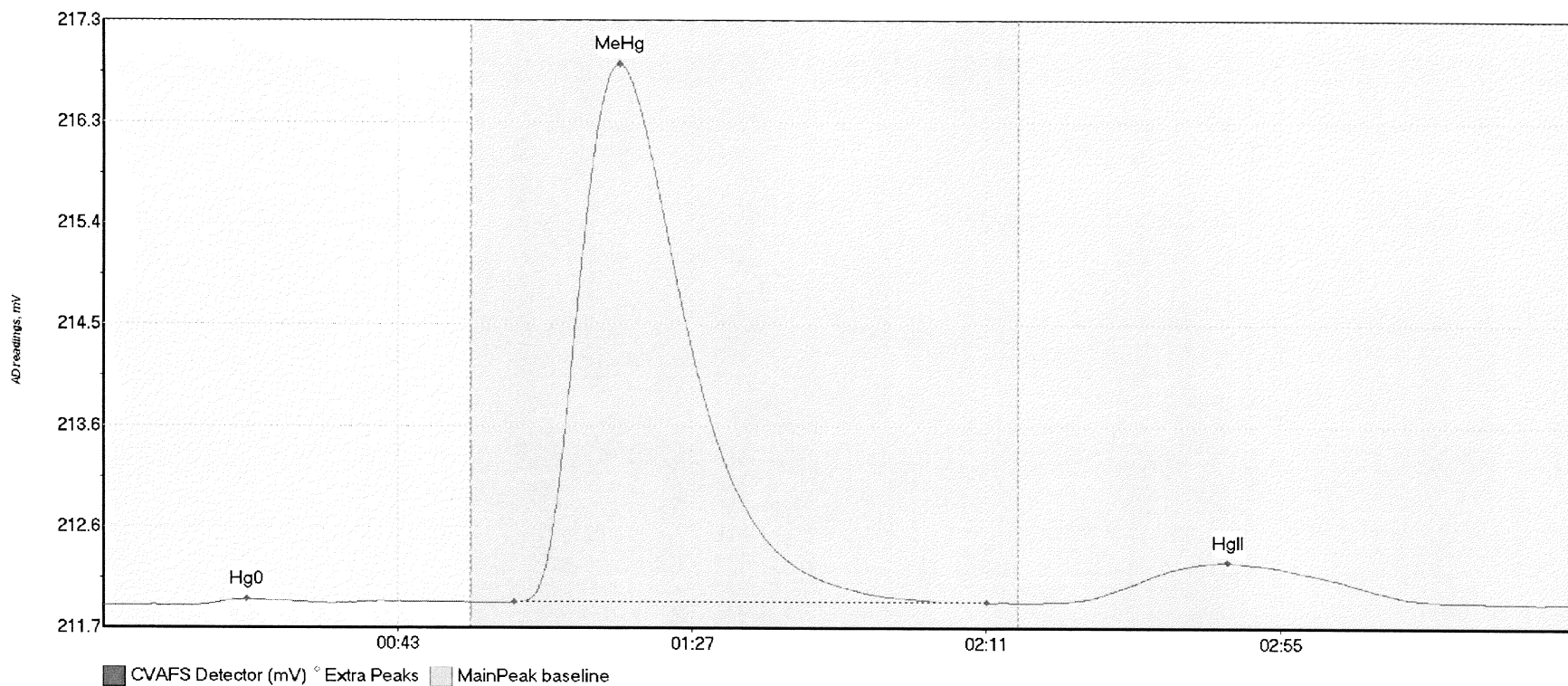
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-BSD1 Hg	6.911	12.5	43.5	211.94	211.97	21.9	0.056	OK	211.9421	0.00	0.01	
F710422-BSD1 Me	1057.626	60.8	131.1	211.96	211.97	77.7	5.512	OK	211.9421	0.00	0.01	
F710422-BSD1 Hg	130.245	142.7	204.0	211.97	211.96	168.6	0.418	OK	211.9421	0.00	0.01	

#13: F710421-BS3



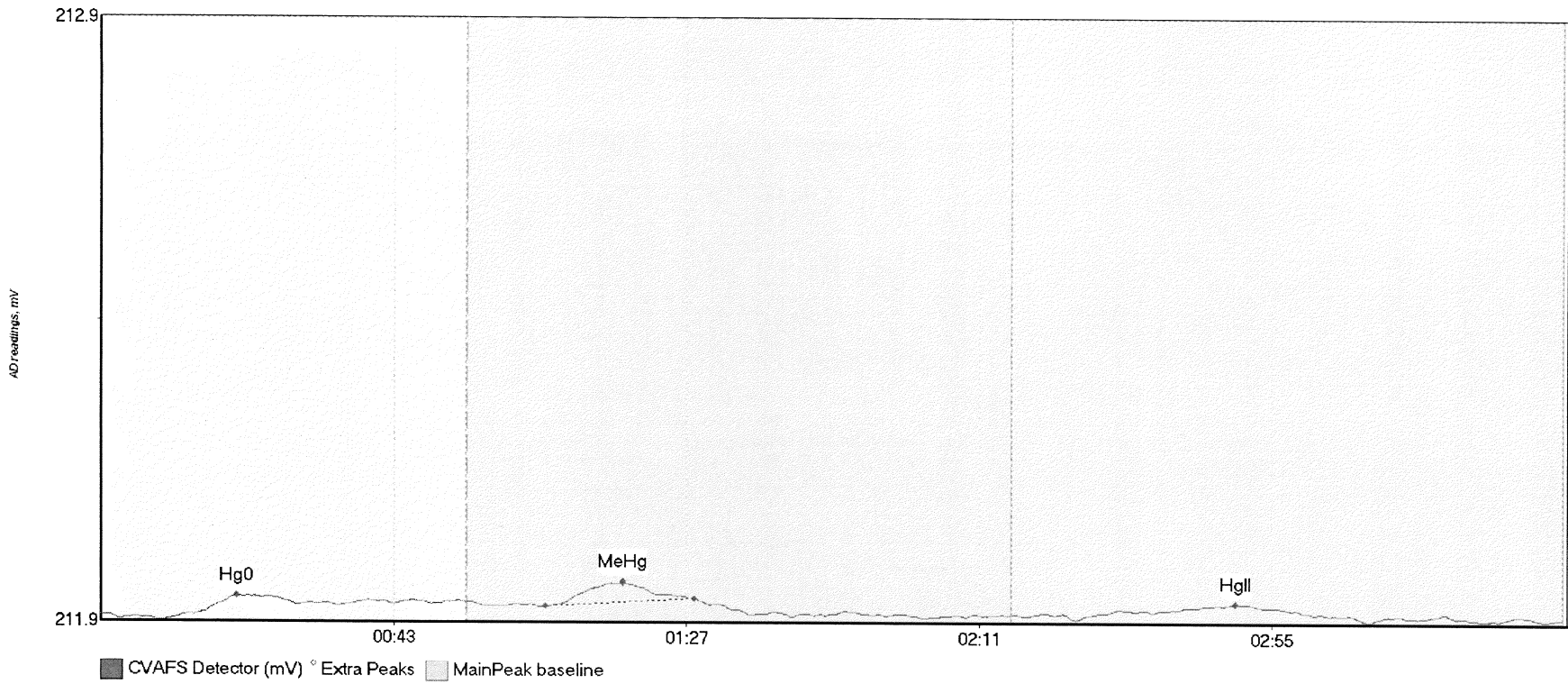
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BS3 Hg0	4.359	13.2	32.3	211.92	211.95	20.1	0.053	OK	211.9231	0.00	-0.01	
F710421-BS3 MeH	923.220	62.2	129.0	211.95	211.94	77.3	4.838	OK	211.9231	0.00	-0.01	
F710421-BS3 HgI	108.886	142.2	201.3	211.93	211.93	167.5	0.350	OK	211.9231	0.00	-0.01	

#14: F710421-BSD3



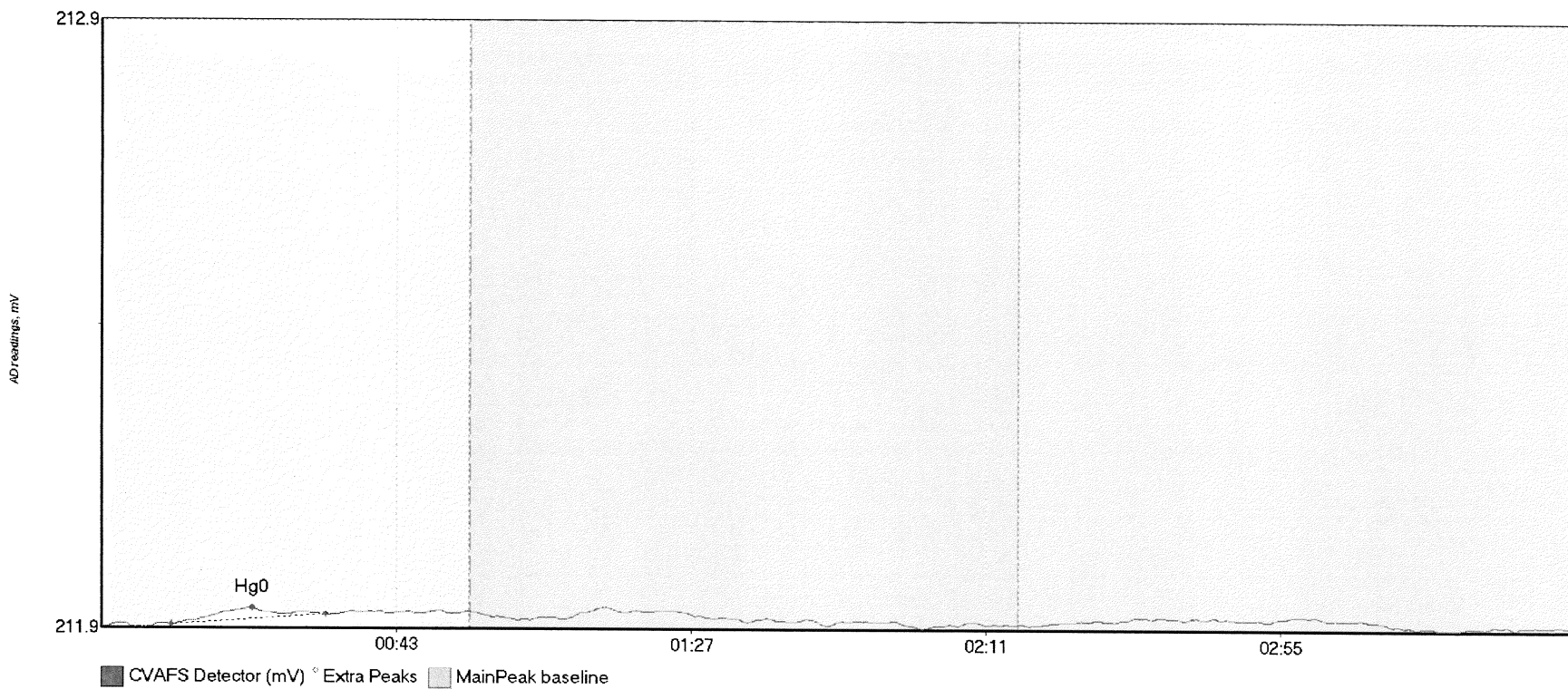
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BSD3 Hg	5.143	13.6	34.4	211.90	211.92	21.5	0.054	OK	211.8955	0.00	0.03	
F710421-BSD3 Me	933.187	61.4	132.1	211.93	211.93	77.1	4.935	OK	211.8955	0.00	0.03	
F710421-BSD3 Hg	114.516	141.2	208.0	211.93	211.92	168.2	0.372	OK	211.8955	0.00	0.03	

#15: F710422-BLK1



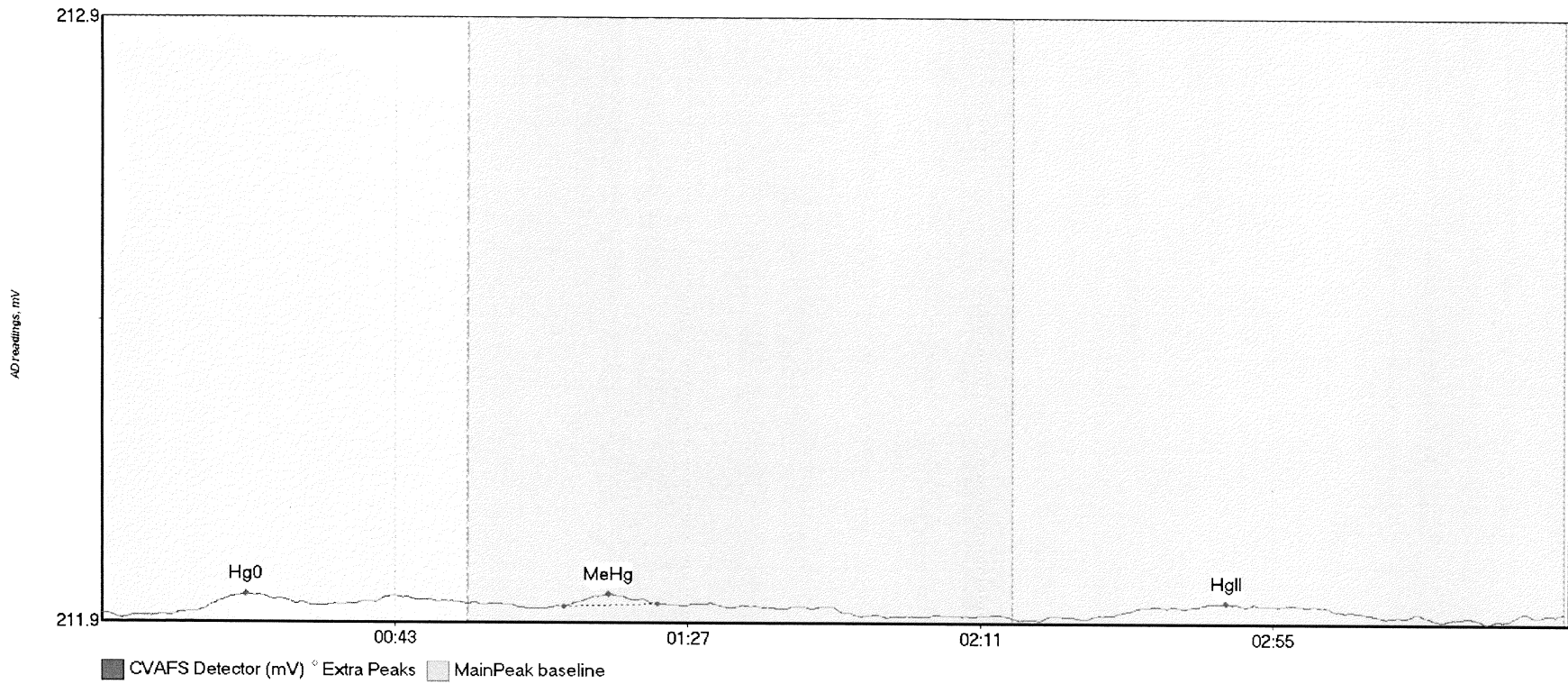
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-BLK1 Hg	2.840	14.0	35.7	211.90	211.91	20.4	0.030	OK	211.8958	0.00	0.00	
F710422-BLK1 Me	3.707	66.9	89.1	211.91	211.92	78.4	0.039	OK	211.8958	0.00	0.00	
F710422-BLK1 Hg	1.903	158.2	181.0	211.90	211.90	170.6	0.015	OK	211.8958	0.00	0.00	

#16: F710422-BLK2



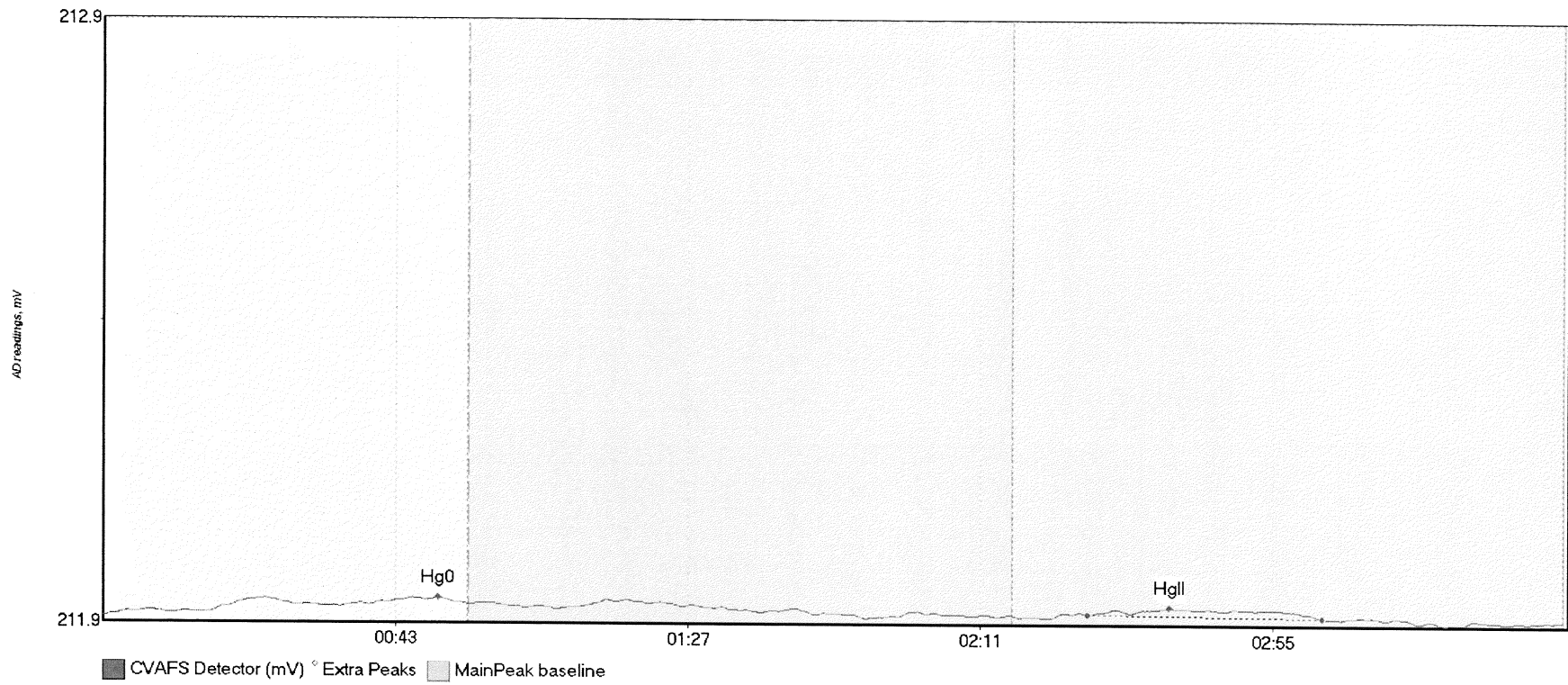
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-BLK2	2.074	10.5	33.5	211.89	211.90	22.4	0.027	OK	211.8843	0.00	0.00	017

#17: F710422-BLK3



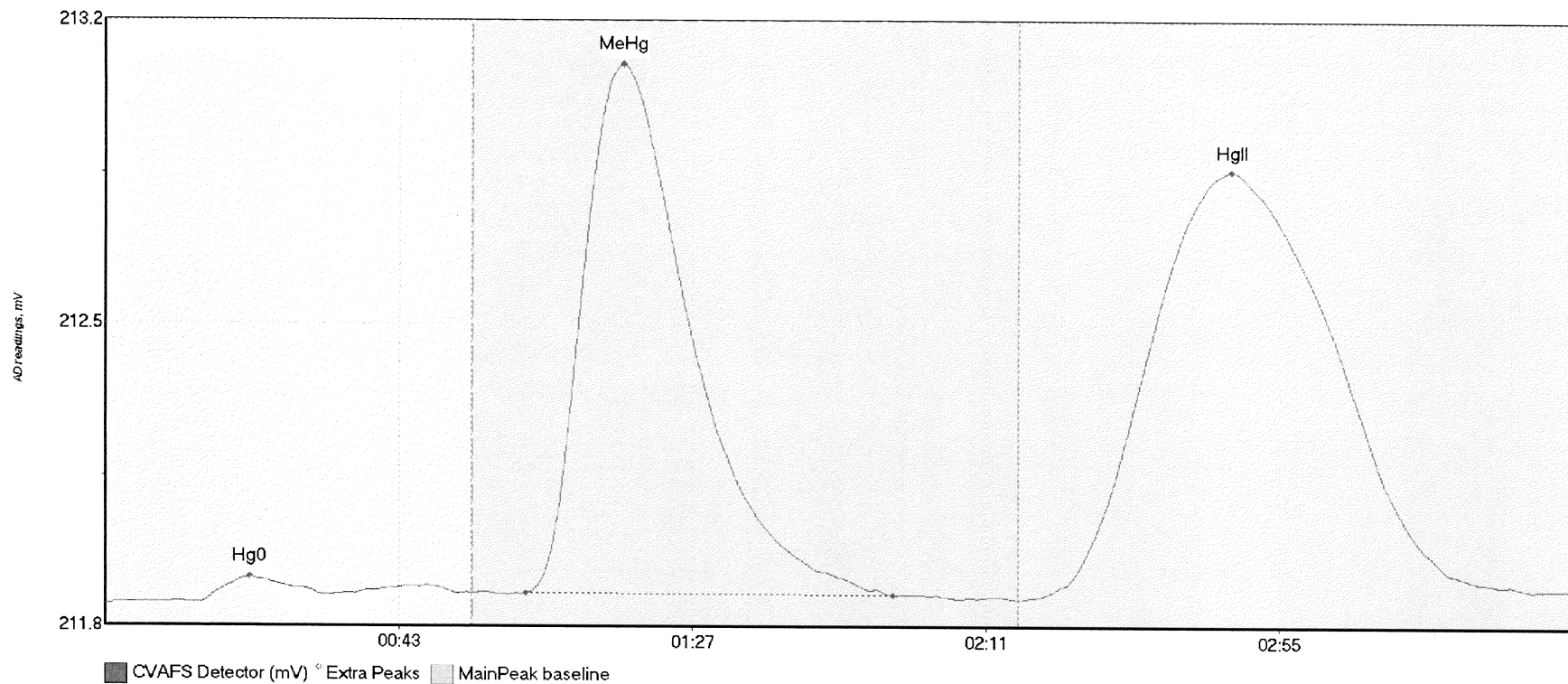
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-BLK3 Hg	2.409	14.1	31.7	211.88	211.90	21.6	0.029	OK	211.8819	0.00	0.00	
F710422-BLK3 Me	1.462	69.4	83.5	211.89	211.90	76.1	0.021	OK	211.8819	0.00	0.00	
F710422-BLK3 Hg	7.190	148.0	192.8	211.88	211.88	169.0	0.026	OK	211.8819	0.00	0.00	

#18: *F710422-BLK4



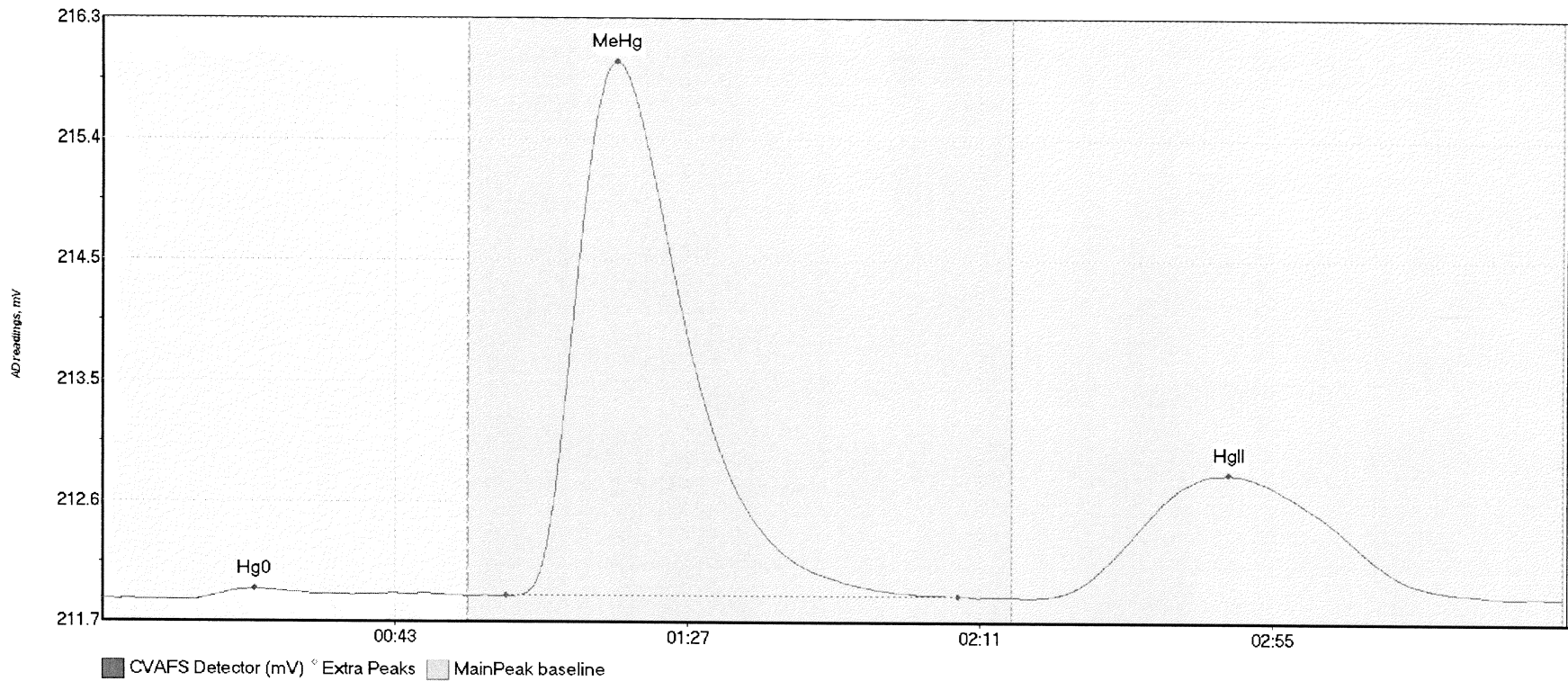
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710422-BLK4 H	3.782	15.8	55.0	211.87	211.89	50.4	0.026	CT	211.8694	0.00	0.00	
*F710422-BLK4 H	3.400	148.2	183.5	211.87	211.87	160.5	0.013	OK	211.8694	0.00	0.00	017

#19: F710422-DUP1



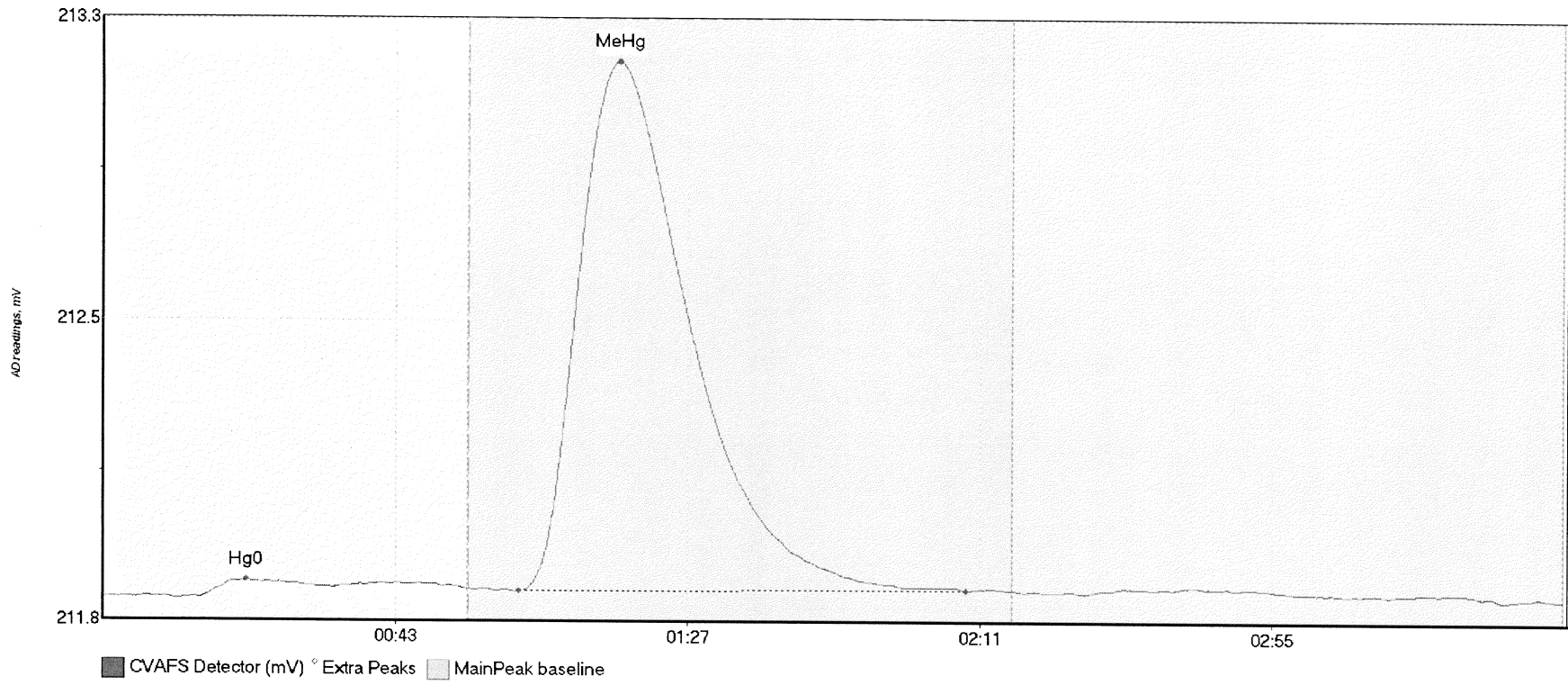
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-DUP1 Hg	5.114	13.6	33.5	211.86	211.88	21.6	0.058	OK	211.8593	0.00	0.04	
F710422-DUP1 Me	224.959	63.0	118.0	211.89	211.88	77.6	1.198	OK	211.8593	0.00	0.04	
F710422-DUP1 Hg	302.500	139.5	214.0	211.88	211.89	168.7	0.969	OK	211.8593	0.00	0.04	

#20: F710422-MS1



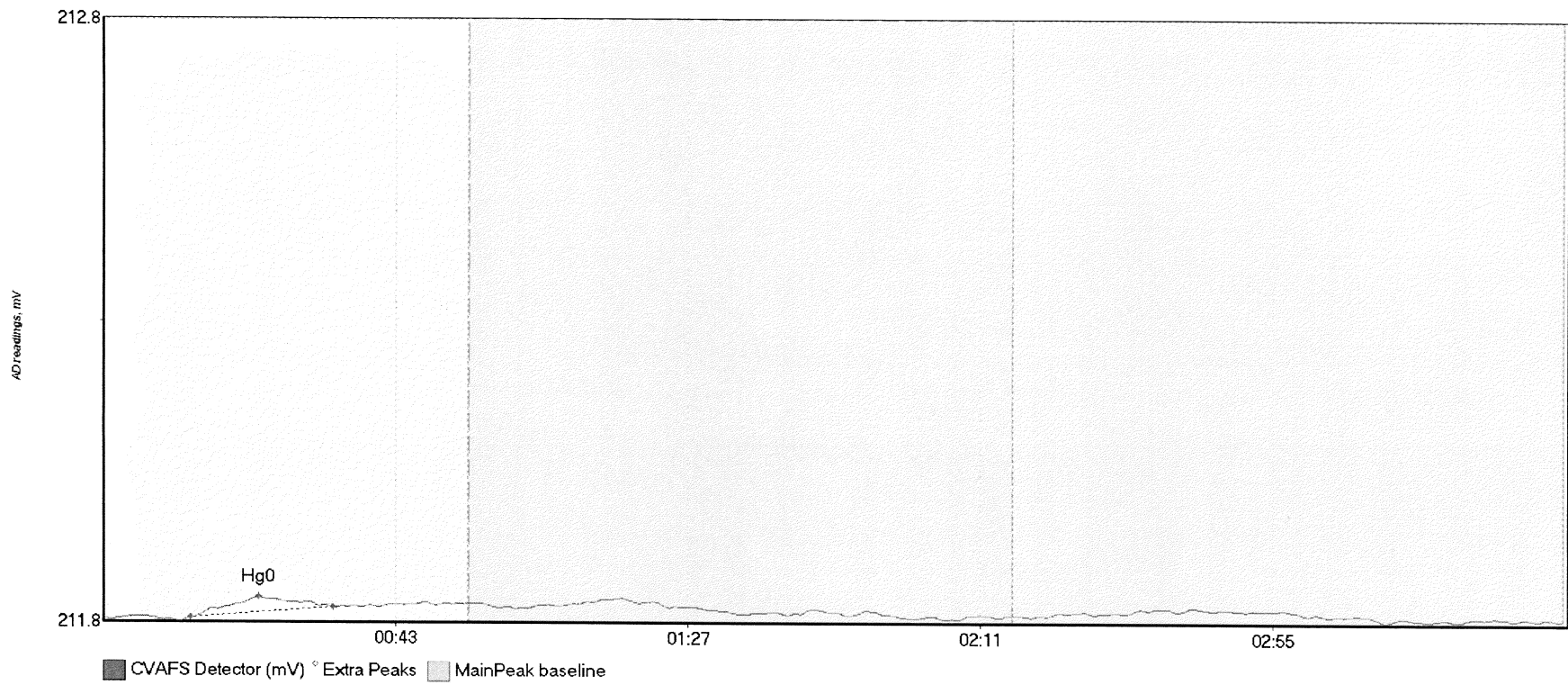
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-MS1 Hg0	13.482	13.4	54.7	211.86	211.90	22.8	0.081	OK	211.8716	0.00	0.02	
F710422-MS1 MeH	778.261	60.7	128.8	211.89	211.90	77.3	4.103	OK	211.8716	0.00	0.02	
F710422-MS1 HgI	303.033	140.5	212.2	211.89	211.89	169.4	0.949	OK	211.8716	0.00	0.02	

#21: SEQ-CCV1



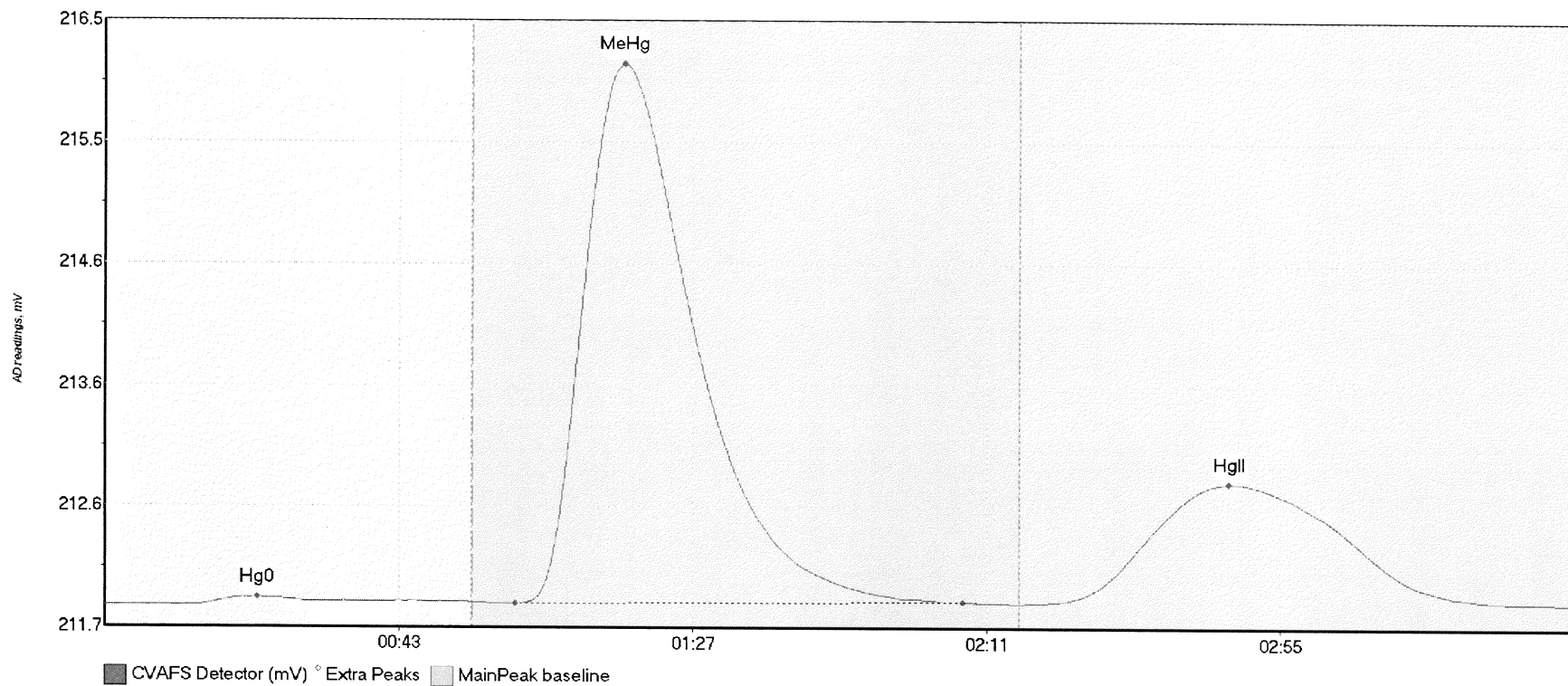
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	8.222	14.6	55.0	211.86	211.88	21.6	0.043	CT	211.8632	0.00	0.00	
SEQ-CCV1 MeHg	251.525	62.6	129.9	211.88	211.88	77.8	1.298	OK	211.8632	0.00	0.00	017

#22: SEQ-CCB1



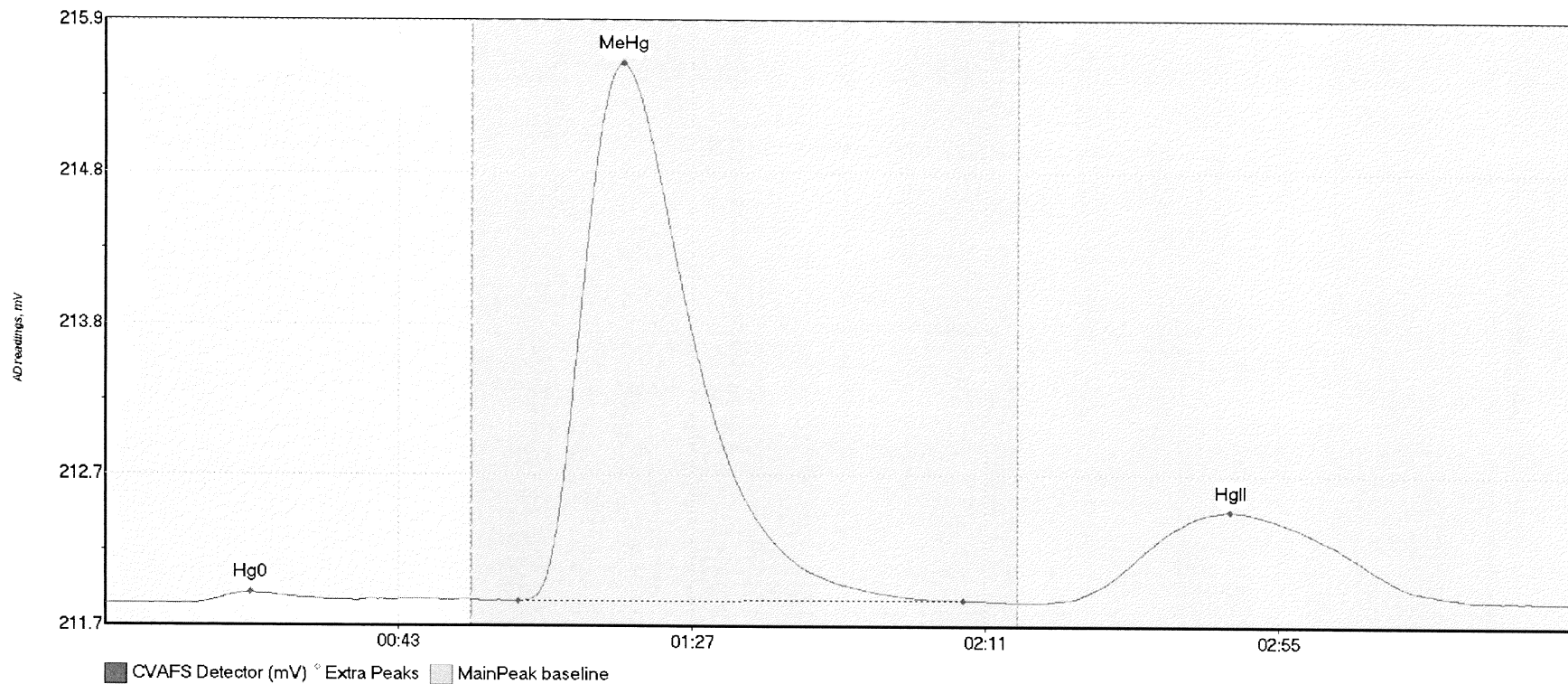
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1	2.979	13.2	34.6	211.85	211.87	23.4	0.035	OK	211.8533	0.00	0.00	017

#23: F710422-MSD1



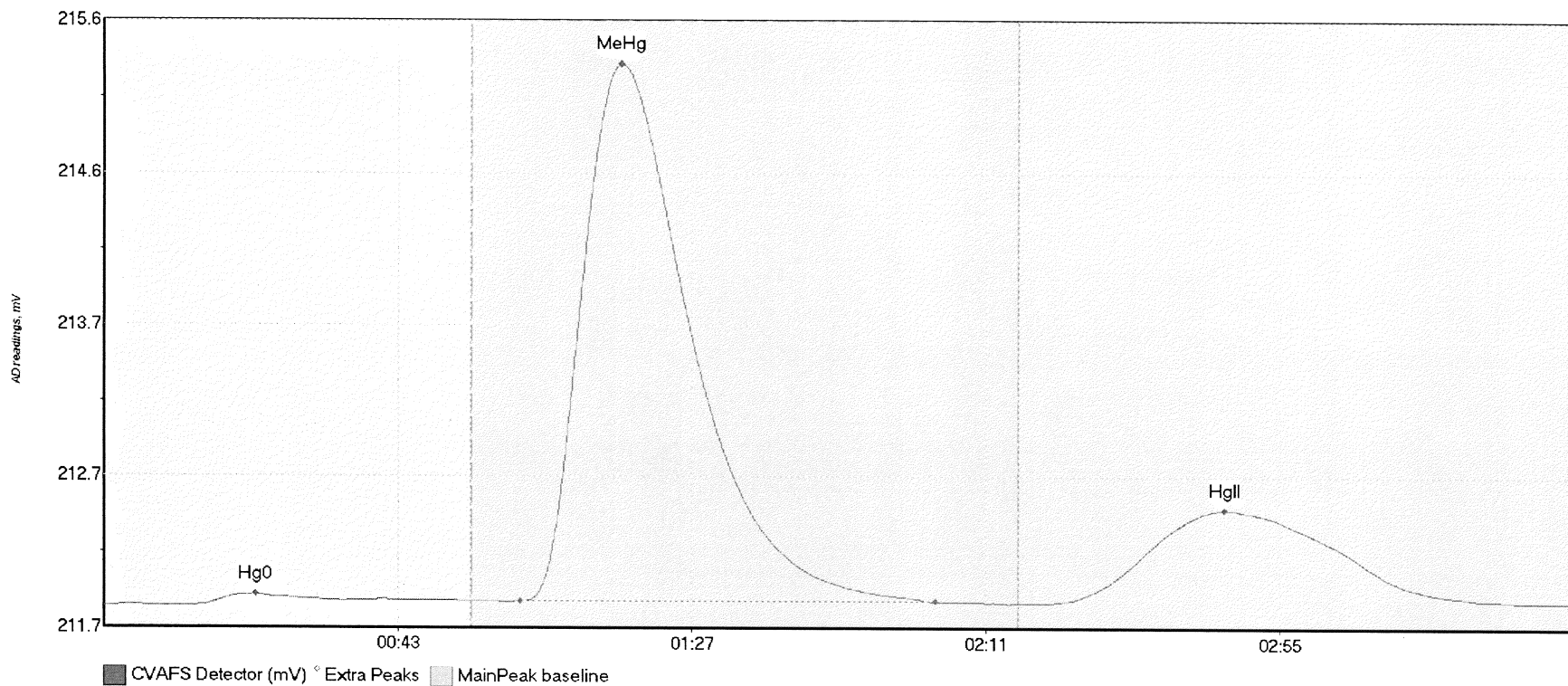
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-MSD1 Hg	9.522	13.6	55.0	211.85	211.87	22.8	0.061	CT	211.8438	0.00	0.02	
F710422-MSD1 Me	819.165	61.4	128.5	211.86	211.87	77.8	4.285	OK	211.8438	0.00	0.02	
F710422-MSD1 Hg	306.463	138.5	218.2	211.87	211.87	168.3	0.958	OK	211.8438	0.00	0.02	

#24: F710422-MS2



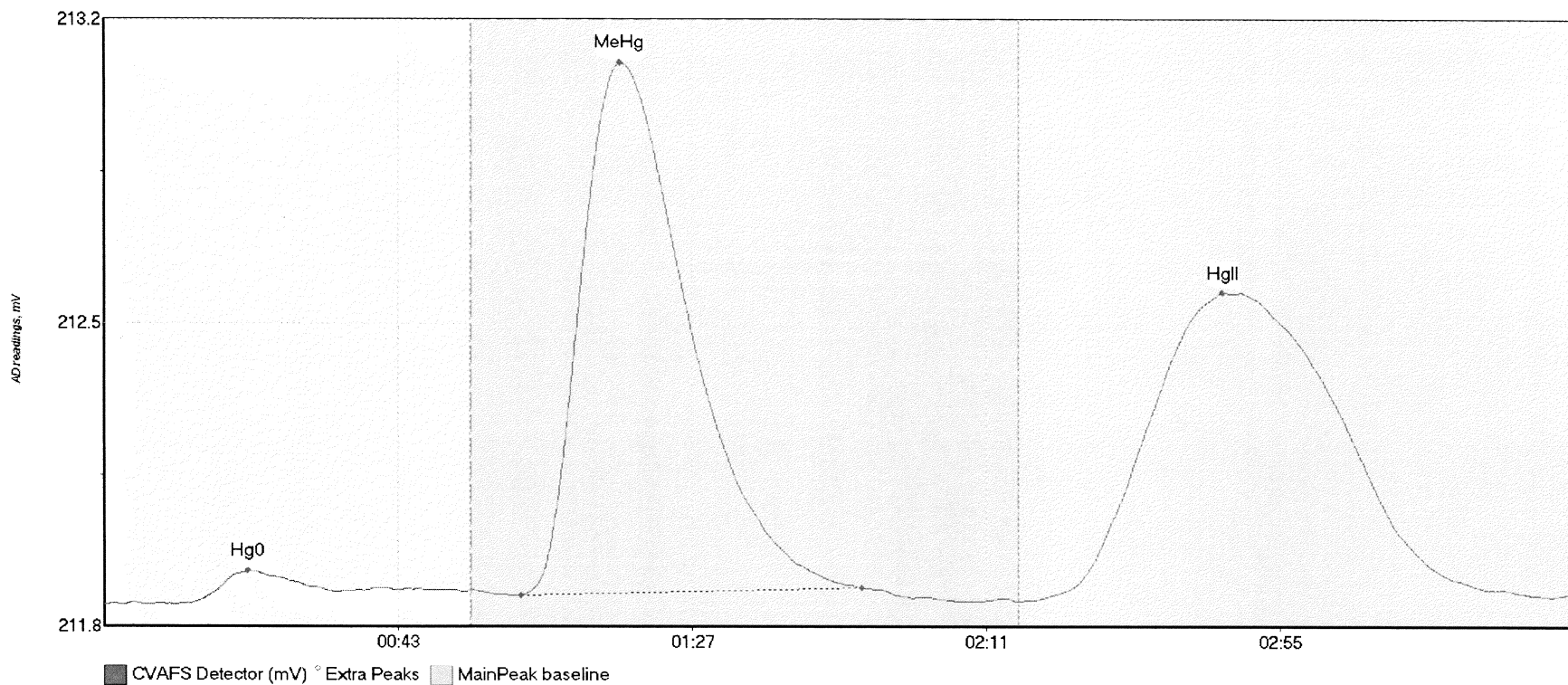
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-MS2 Hg0	7.599	13.2	37.6	211.85	211.87	21.8	0.073	OK	211.8515	0.00	0.02	
F710422-MS2 MeH	695.855	62.0	128.7	211.87	211.88	77.7	3.704	OK	211.8515	0.00	0.02	
F710422-MS2 HgI	198.120	141.1	219.0	211.87	211.87	168.8	0.625	OK	211.8515	0.00	0.02	

#25: F710422-MSD2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-MSD2 Hg	10.674	12.7	54.9	211.85	211.88	22.7	0.072	OK	211.8512	0.00	0.02	
F710422-MSD2 Me	649.814	62.3	124.5	211.88	211.88	77.5	3.448	OK	211.8512	0.00	0.02	
F710422-MSD2 Hg	187.381	141.8	214.6	211.87	211.87	167.8	0.597	OK	211.8512	0.00	0.02	

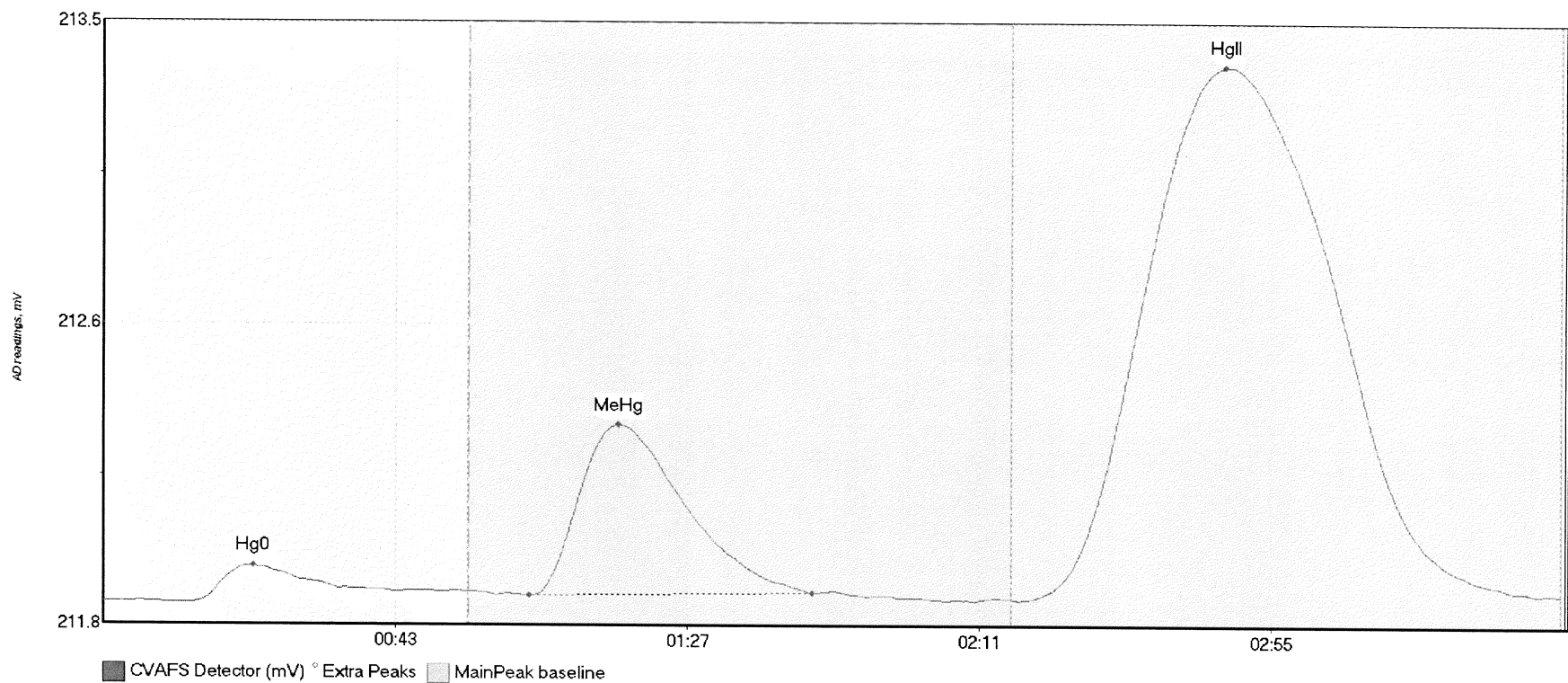
#26: 1708240-06



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-06 Hg0	10.640	12.9	53.8	211.86	211.88	21.6	0.075	OK	211.8550	0.00	0.02	
1708240-06 MeHg	226.606	62.5	113.4	211.87	211.89	77.2	1.228	OK	211.8550	0.00	0.02	
1708240-06 HgII	229.528	139.2	216.7	211.86	211.87	167.4	0.712	OK	211.8550	0.00	0.02	

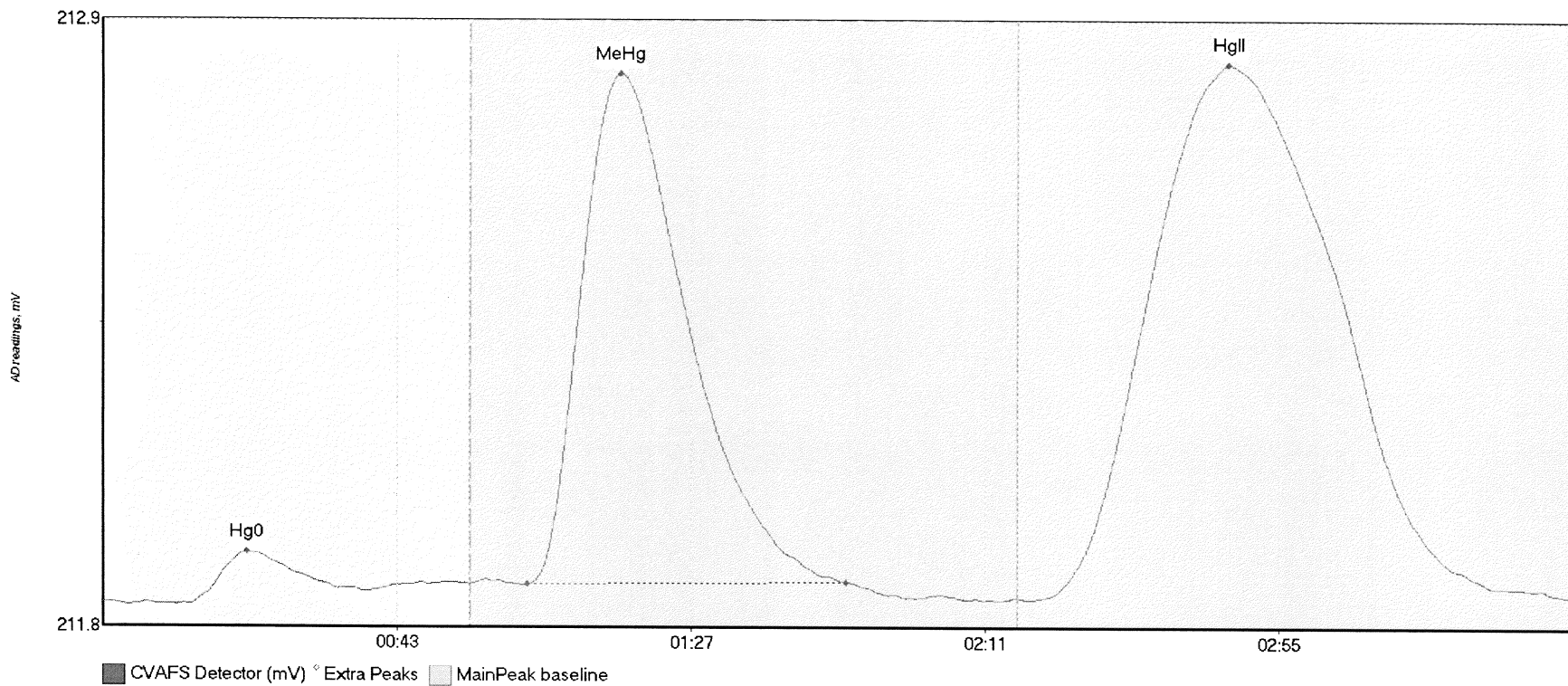
017

#27: 1708240-07



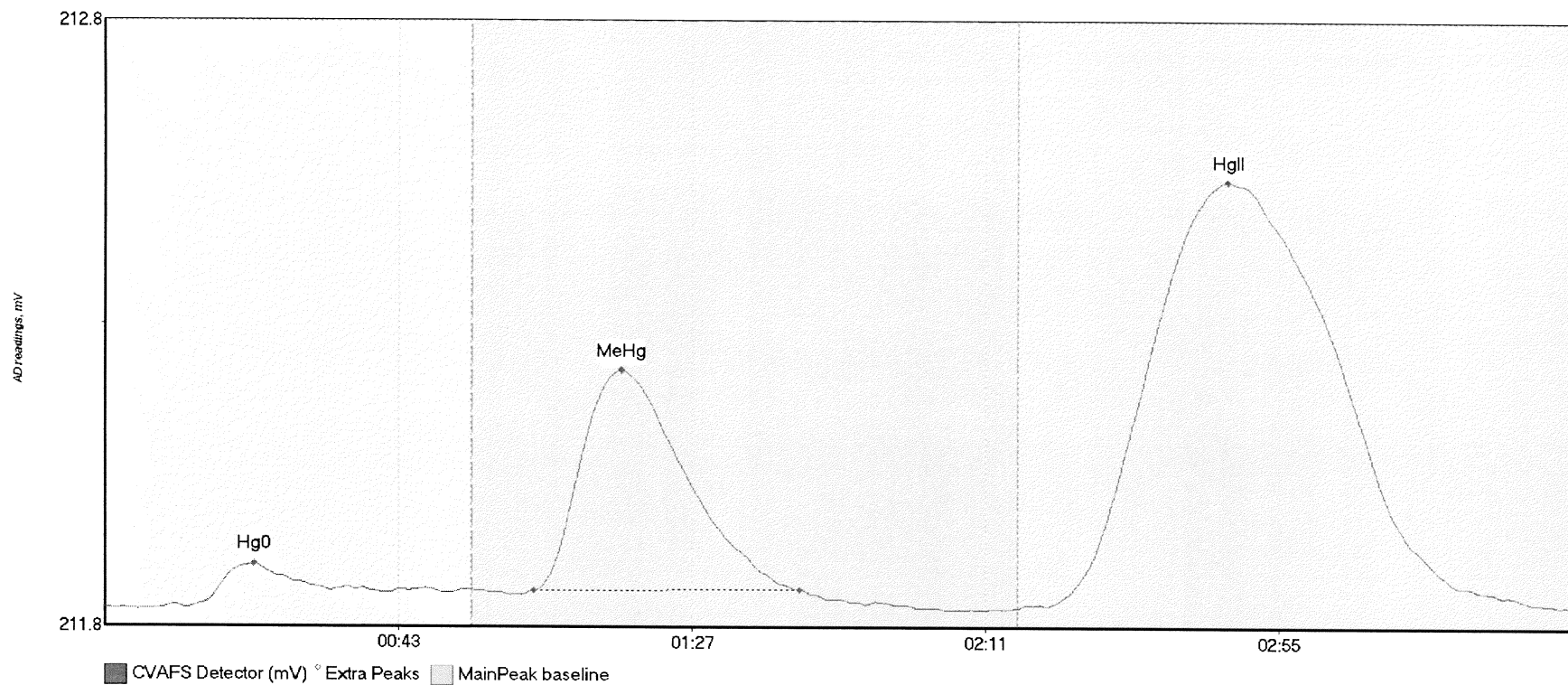
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-07 Hg0	13.080	12.9	44.4	211.86	211.89	22.6	0.103	OK	211.8585	0.00	0.03	
1708240-07 MeHg	87.355	64.2	106.9	211.88	211.88	77.6	0.480	OK	211.8585	0.00	0.03	
1708240-07 HgII	478.447	138.7	216.7	211.87	211.88	169.0	1.496	OK	211.8585	0.00	0.03	017

#28: 1708240-08



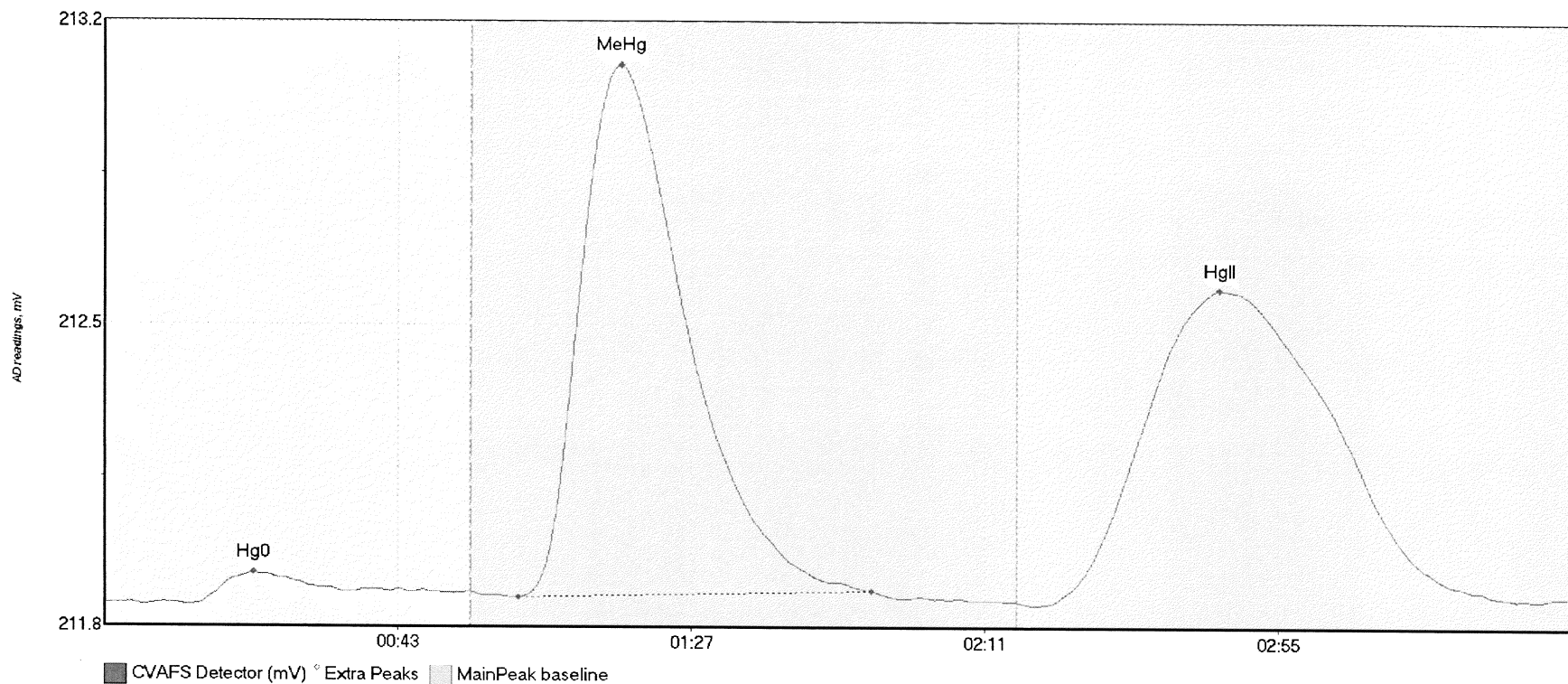
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-08 Hg0	10.015	12.9	39.2	211.85	211.87	21.6	0.090	OK	211.8534	0.00	0.01	
1708240-08 MeHg	161.104	63.6	111.2	211.88	211.89	77.5	0.890	OK	211.8534	0.00	0.01	
1708240-08 HgII	293.508	141.2	219.4	211.86	211.86	168.4	0.929	OK	211.8534	0.00	0.01	

#29: 1708240-09



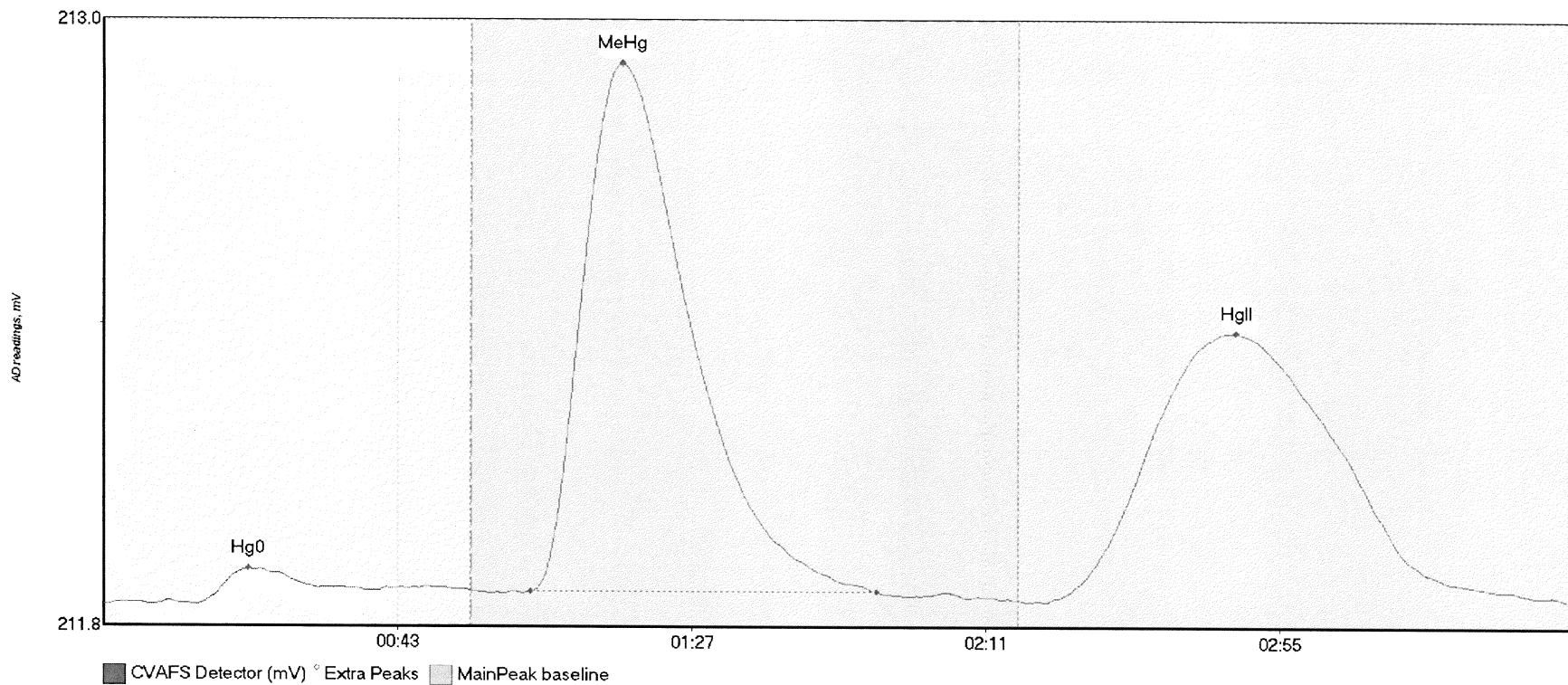
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-09 Hg0	9.463	12.1	51.1	211.84	211.86	22.4	0.072	OK	211.8385	0.00	0.00	
1708240-09 MeHg	64.486	64.3	104.2	211.87	211.87	77.5	0.365	OK	211.8385	0.00	0.00	
1708240-09 HgII	223.129	141.3	218.3	211.84	211.84	168.3	0.702	OK	211.8385	0.00	0.00	

#30: 1708240-10



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-10 Hg0	11.016	13.1	52.5	211.82	211.85	22.4	0.076	OK	211.8268	0.00	0.02	
1708240-10 MeHg	233.217	62.1	115.0	211.84	211.86	77.4	1.276	OK	211.8268	0.00	0.02	
1708240-10 HgII	240.272	139.4	214.9	211.82	211.84	167.2	0.758	OK	211.8268	0.00	0.02	017

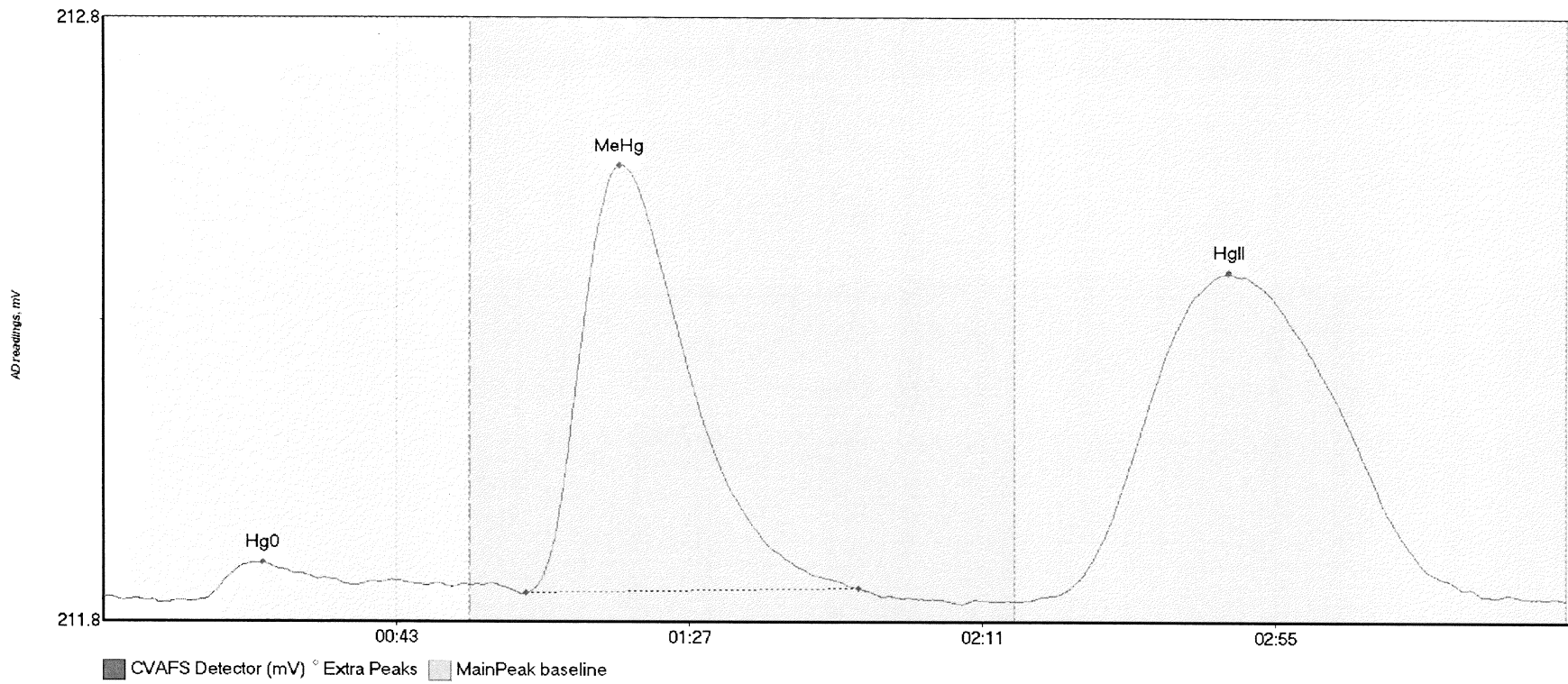
#31: 1708240-11



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-11 Hg0	10.216	13.7	55.0	211.82	211.85	21.7	0.070	CT	211.8195	0.00	0.01	
1708240-11 MeHg	190.227	63.8	115.8	211.84	211.84	77.6	1.027	OK	211.8195	0.00	0.01	
1708240-11 HgII	166.290	142.7	219.8	211.83	211.83	169.5	0.519	CT	211.8195	0.00	0.01	

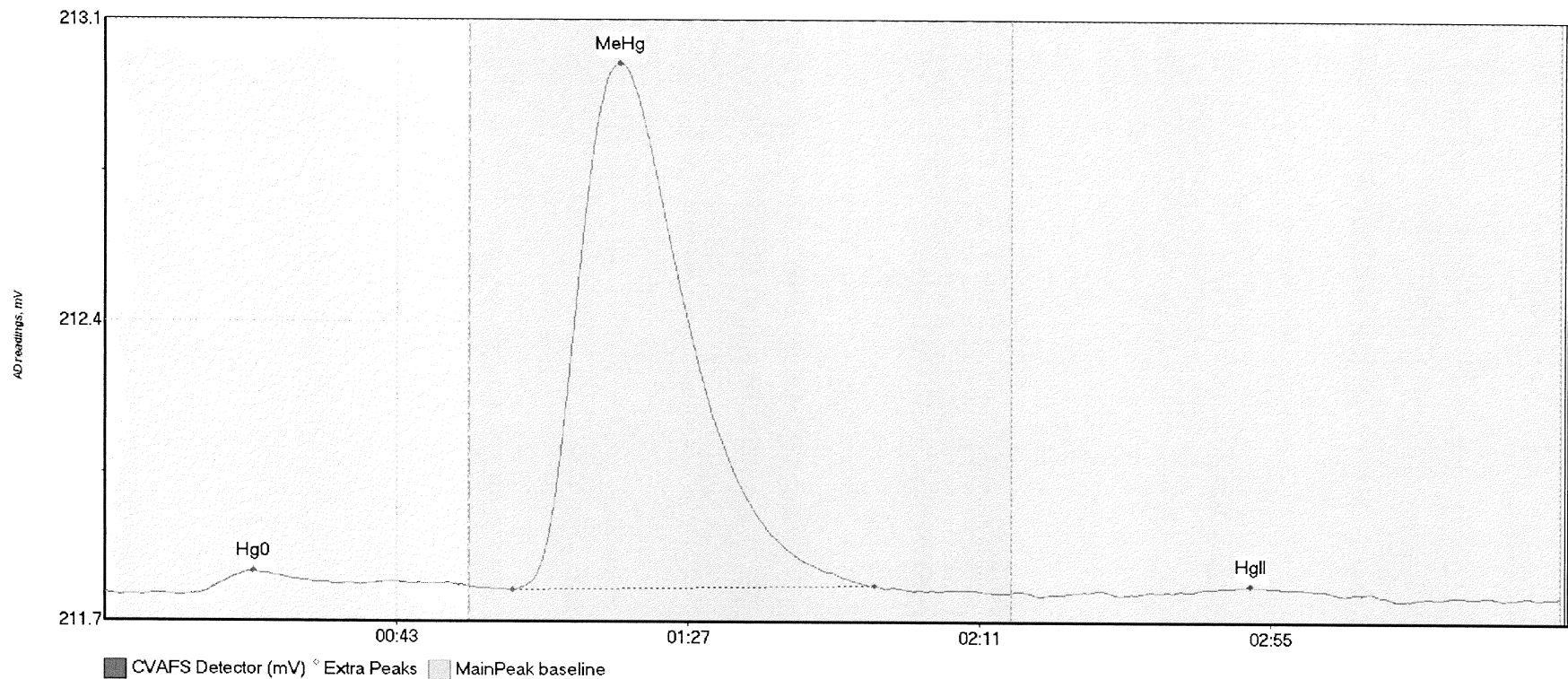
017

#32: 1708240-12



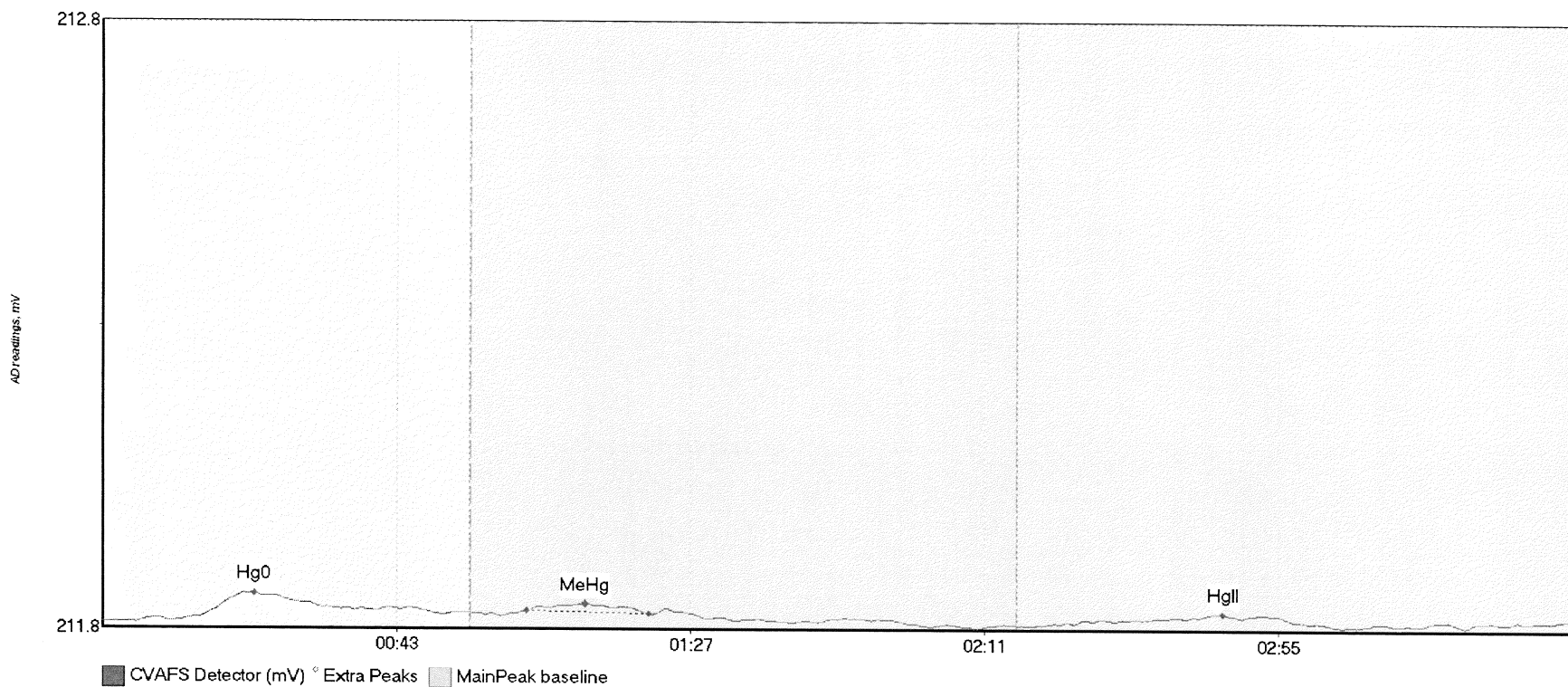
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-12 Hg0	9.040	15.0	52.3	211.81	211.83	24.0	0.061	OK	211.8182	0.00	0.00	
1708240-12 MeHg	131.757	63.4	113.4	211.82	211.83	77.5	0.709	OK	211.8182	0.00	0.00	
1708240-12 HgII	174.955	139.4	219.7	211.81	211.81	169.0	0.543	OK	211.8182	0.00	0.00	

#33: SEQ-CCV2



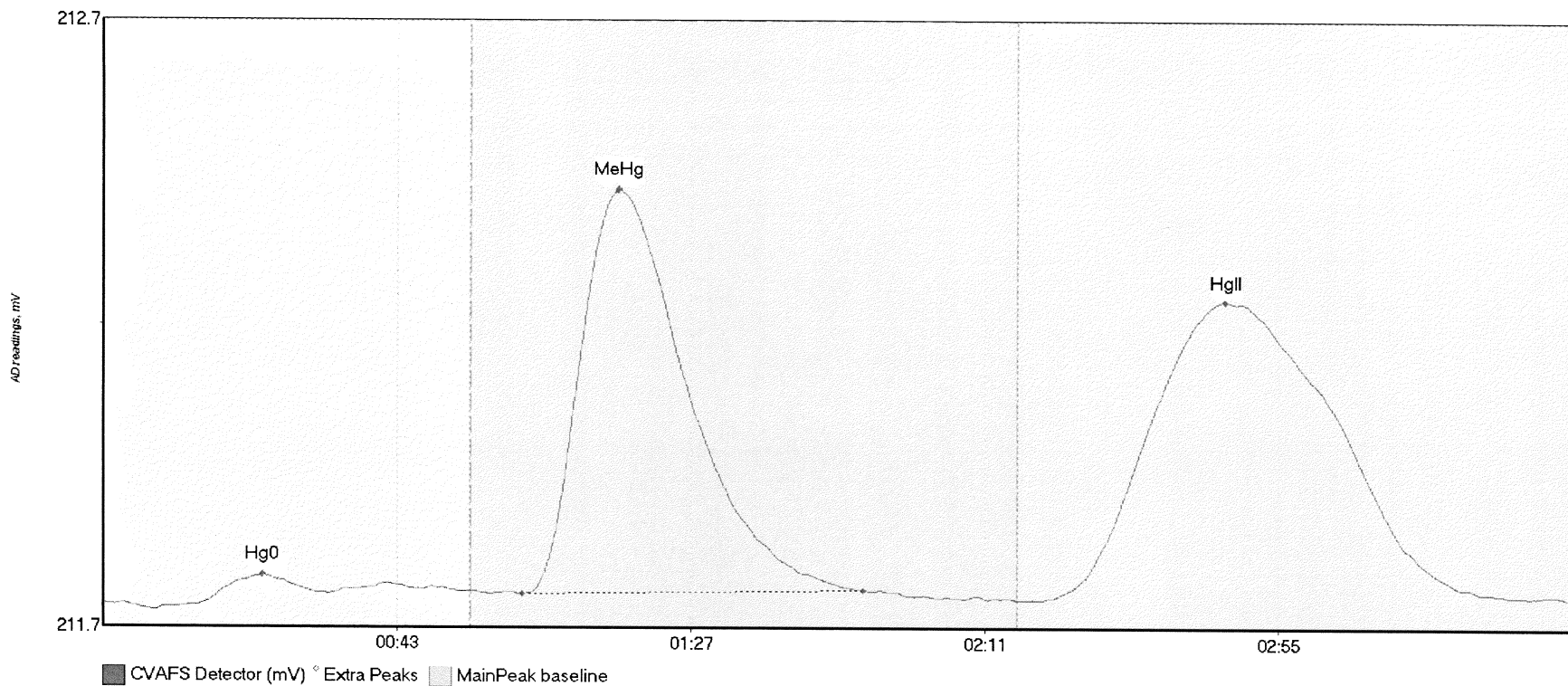
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	8.293	14.0	55.0	211.80	211.82	22.4	0.051	CT	211.8053	0.00	-0.01	
SEQ-CCV2 MeHg	227.784	61.6	116.2	211.81	211.82	77.7	1.199	OK	211.8053	0.00	-0.01	
SEQ-CCV2 HgII	1.204	164.3	183.1	211.81	211.81	173.0	0.012	OK	211.8053	0.00	-0.01	

#34: SEQ-CCB2



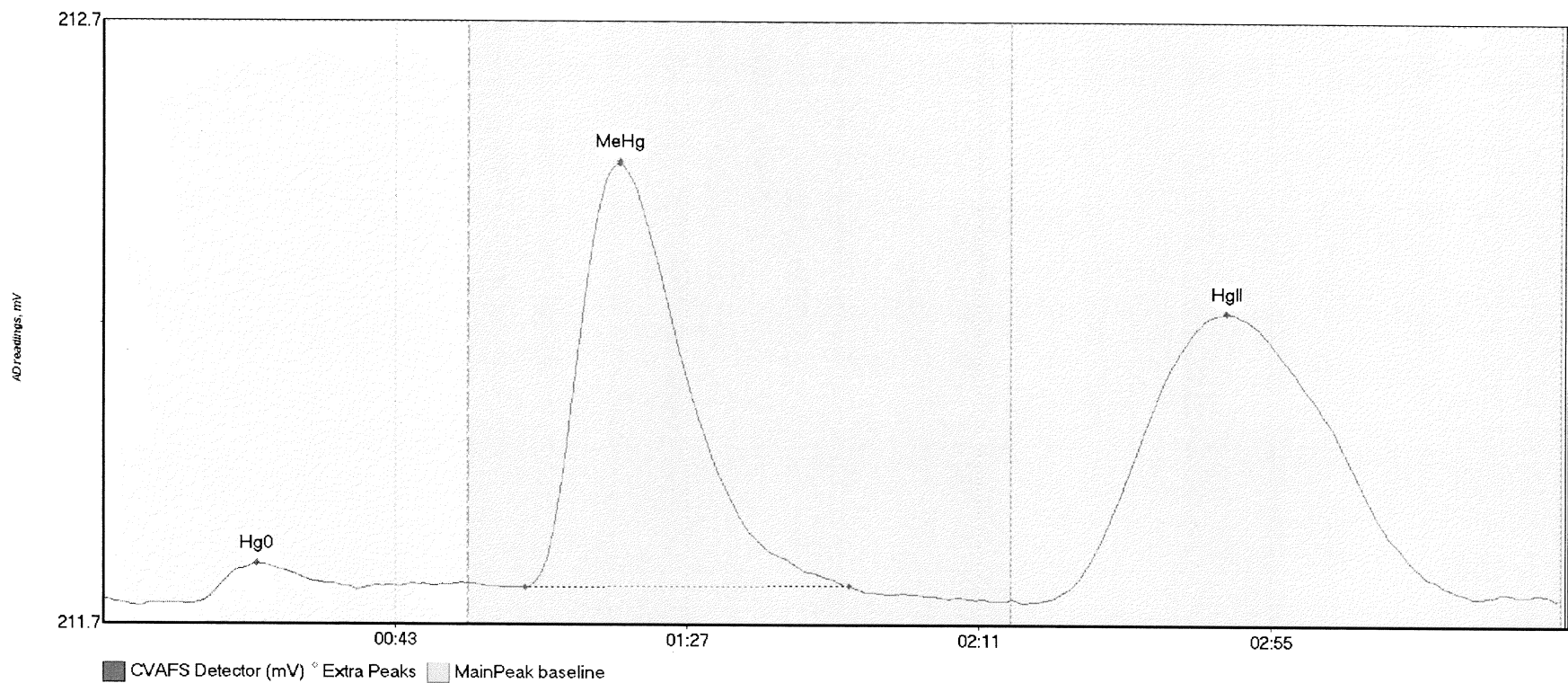
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	7.154	11.6	51.1	211.78	211.79	22.7	0.044	OK	211.7803	0.00	0.01	
SEQ-CCB2 MeHg	1.625	63.4	81.8	211.80	211.79	72.1	0.012	OK	211.7803	0.00	0.01	
SEQ-CCB2 HgII	3.285	145.4	180.9	211.78	211.78	167.7	0.017	OK	211.7803	0.00	0.01	

#35: 1708240-13



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-13 Hg0	4.112	14.2	33.8	211.77	211.79	23.9	0.049	OK	211.7742	0.00	0.01	
1708240-13 MeHg	122.568	62.7	113.7	211.79	211.80	77.2	0.667	OK	211.7742	0.00	0.01	
1708240-13 HgII	154.210	141.7	213.6	211.78	211.79	168.0	0.492	OK	211.7742	0.00	0.01	

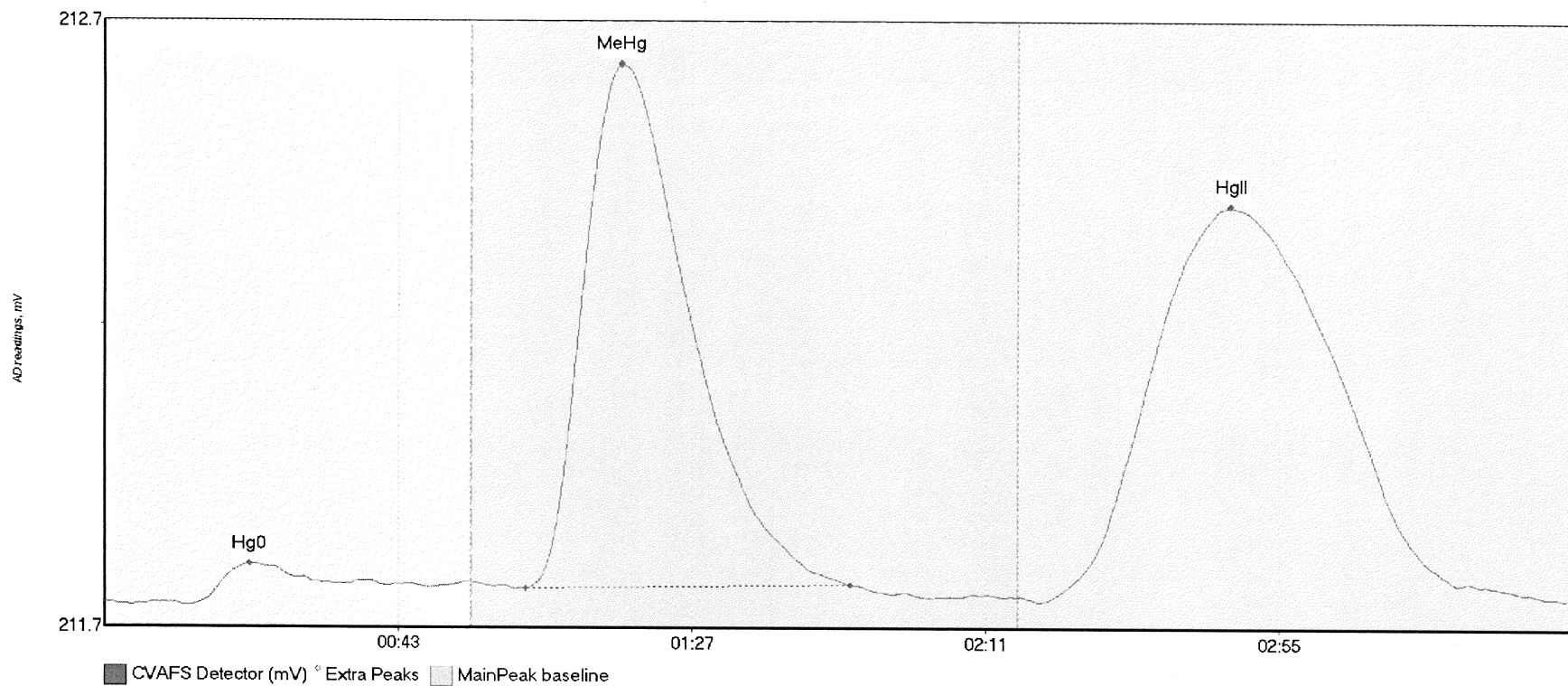
#36: 1708240-14



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-14 Hg0	7.287	13.5	38.4	211.77	211.80	23.2	0.067	OK	211.7785	0.00	0.00	
1708240-14 MeHg	128.353	63.6	112.5	211.80	211.80	77.9	0.705	OK	211.7785	0.00	0.00	
1708240-14 HgII	150.314	142.0	206.5	211.78	211.78	169.3	0.479	OK	211.7785	0.00	0.00	

017

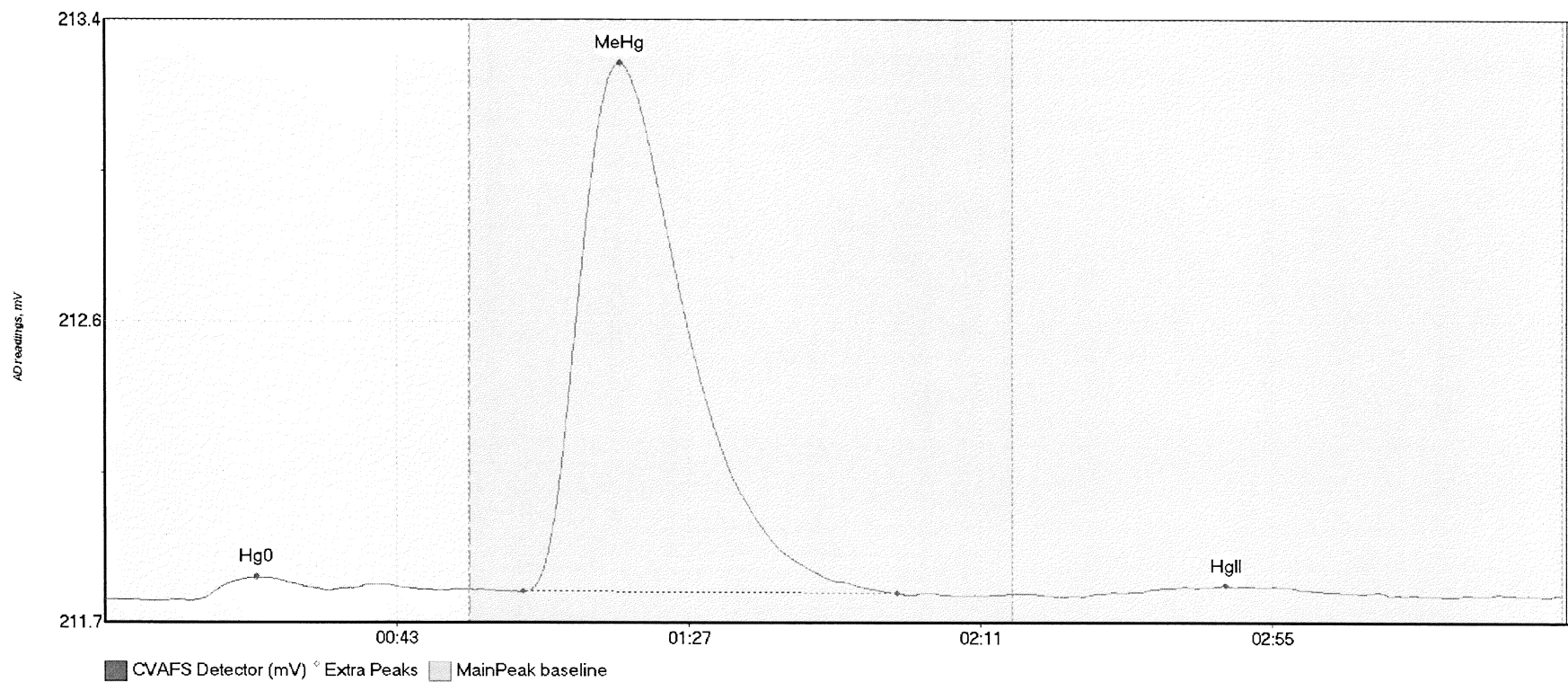
#37: 1708240-15



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-15 Hg0	9.363	13.2	48.7	211.76	211.79	21.7	0.069	OK	211.7677	0.00	0.01	
1708240-15 MeHg	157.869	63.2	111.7	211.79	211.80	77.5	0.863	OK	211.7677	0.00	0.01	
1708240-15 HgII	204.159	139.9	215.0	211.77	211.78	168.8	0.654	OK	211.7677	0.00	0.01	

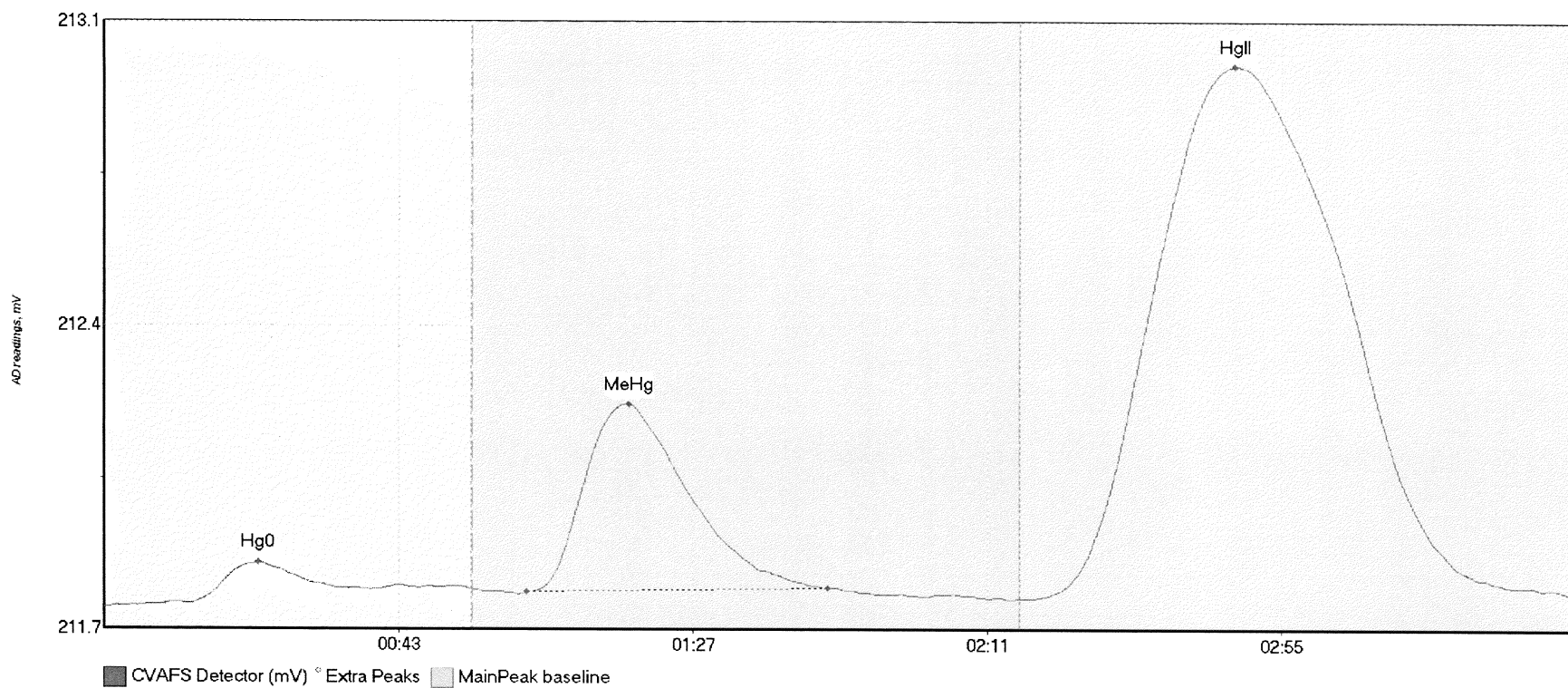
017

#38: 1710535-02



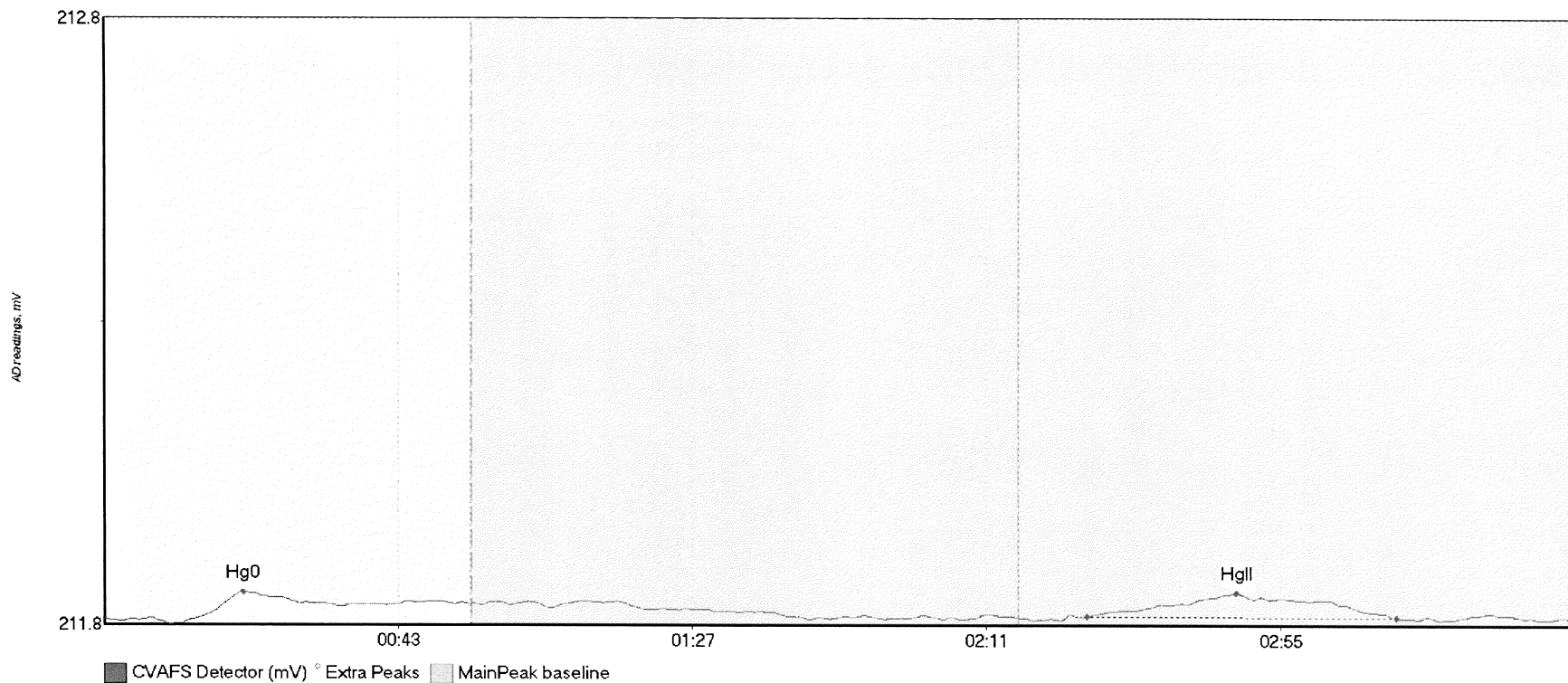
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710535-02 Hg0	6.082	12.9	33.9	211.77	211.80	22.8	0.066	OK	211.7713	0.00	0.01	
1710535-02 MeHg	276.791	63.0	119.4	211.79	211.79	77.6	1.479	OK	211.7713	0.00	0.01	
1710535-02 HgII	3.169	156.3	184.5	211.79	211.79	169.0	0.018	OK	211.7713	0.00	0.01	

#39: 1710626-01



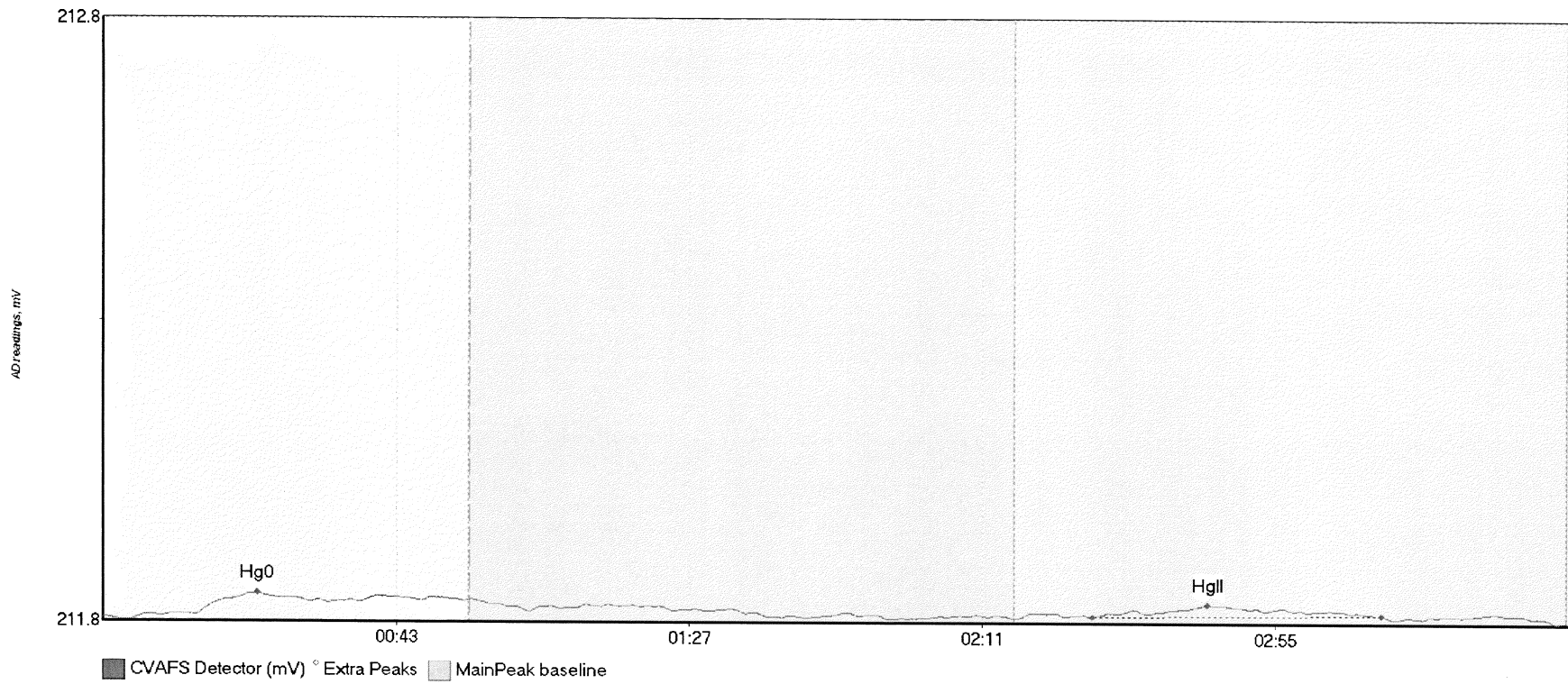
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710626-01 Hg0	9.355	5.5	39.7	211.77	211.81	23.0	0.097	OK	211.7705	0.00	0.03	
1710626-01 MeHg	75.511	63.2	108.2	211.80	211.81	78.4	0.426	OK	211.7705	0.00	0.03	
1710626-01 HgII	386.862	138.8	219.6	211.79	211.80	169.1	1.207	OK	211.7705	0.00	0.03	

#40: F710421-BLK8



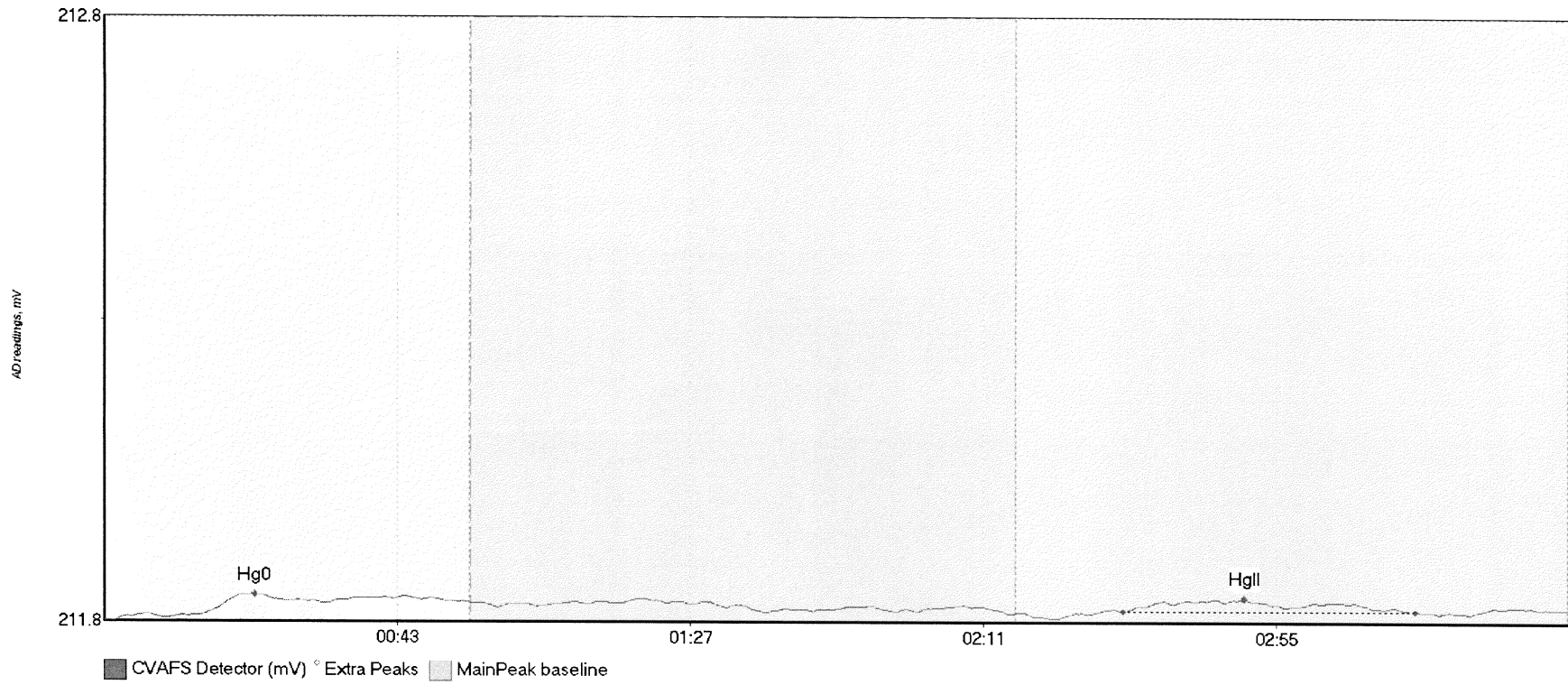
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLK8 Hg	3.773	13.4	35.6	211.79	211.82	20.9	0.045	OK	211.7936	0.00	0.00	
F710421-BLK8 Hg	10.092	147.2	193.4	211.80	211.80	169.4	0.039	OK	211.7936	0.00	0.00	017

#41: F710421-BLK9



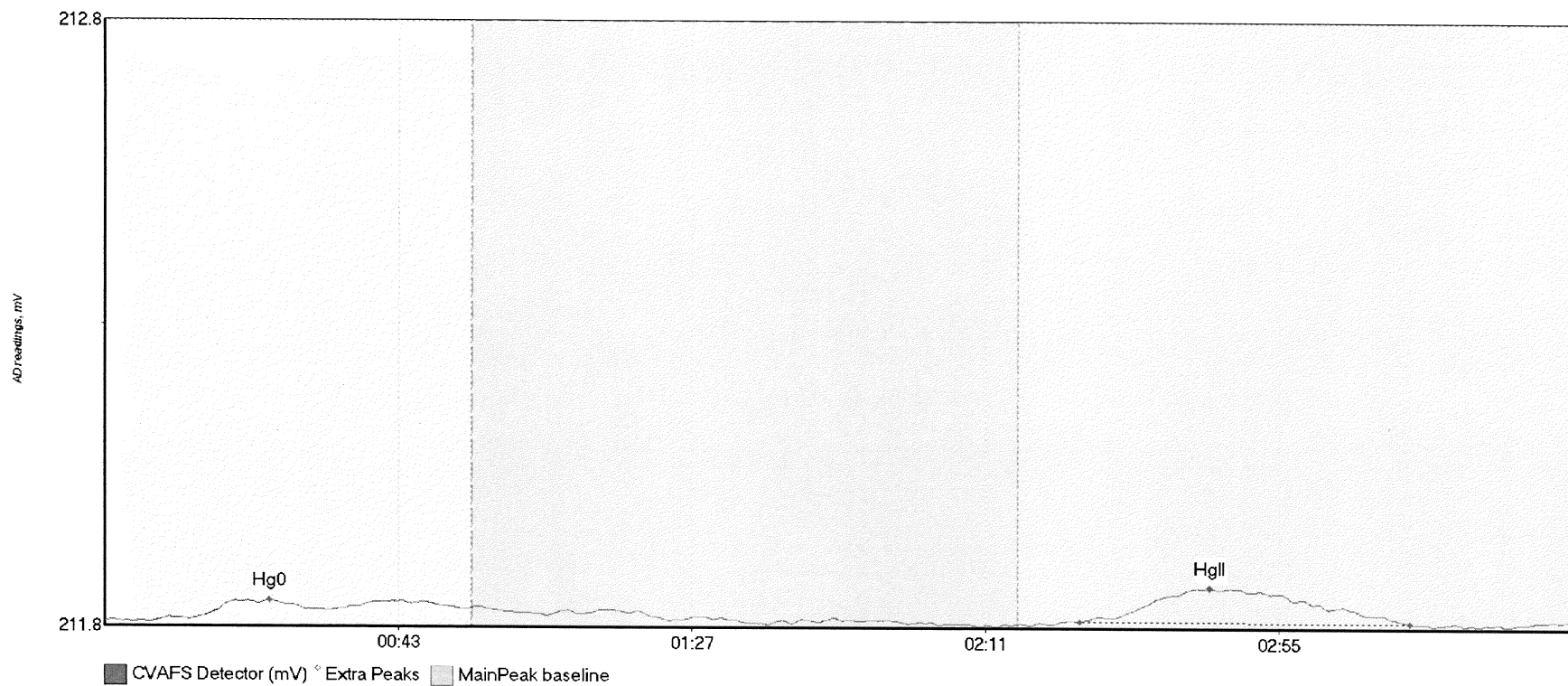
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLK9 Hg	2.883	14.0	33.6	211.79	211.81	23.1	0.036	OK	211.7823	0.00	0.00	
F710421-BLK9 Hg	4.419	148.6	192.0	211.78	211.79	165.9	0.021	OK	211.7823	0.00	0.00	017

#42: F710421-BLKA



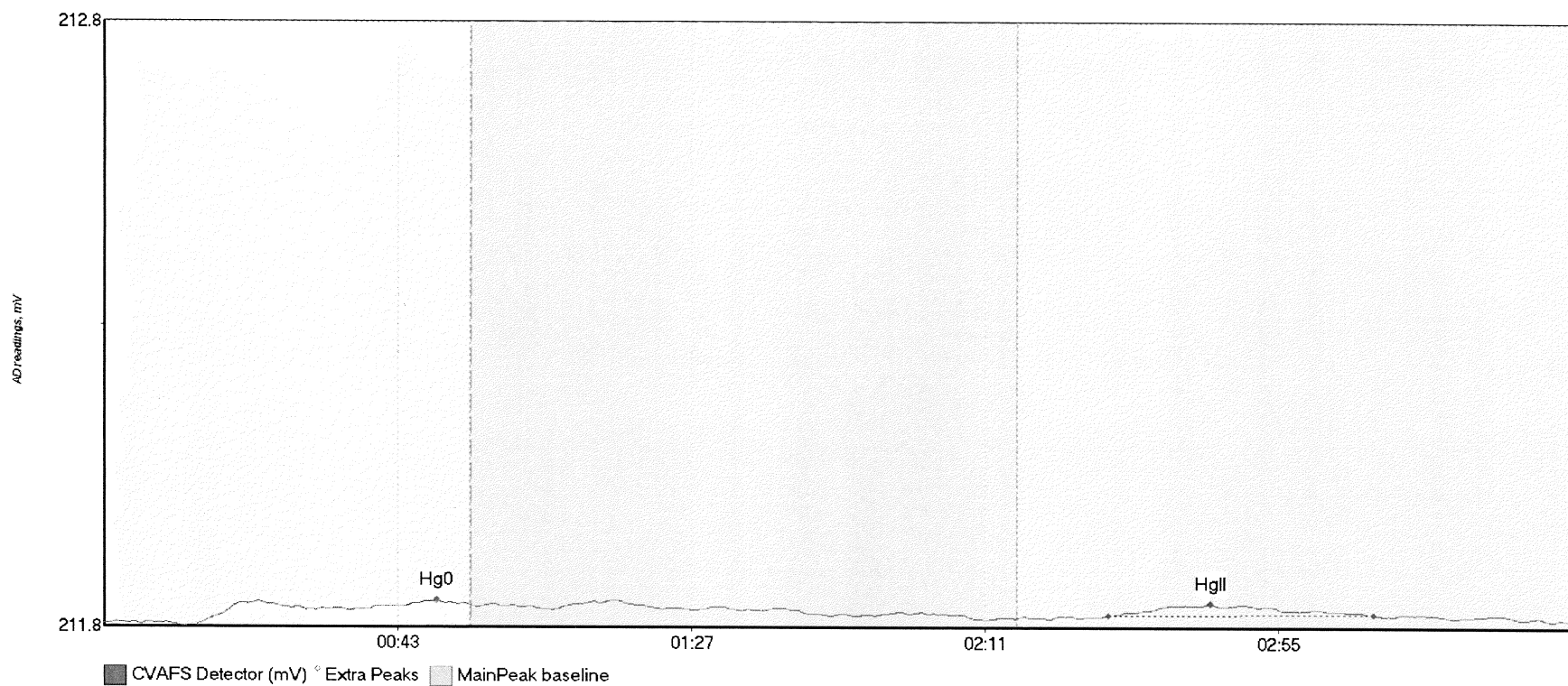
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLKA Hg	2.571	9.4	33.4	211.78	211.81	22.6	0.040	OK	211.7760	0.00	0.02	
F710421-BLKA Hg	5.395	153.0	196.9	211.79	211.79	171.2	0.020	OK	211.7760	0.00	0.02	117

#43: *F710421-BLKB



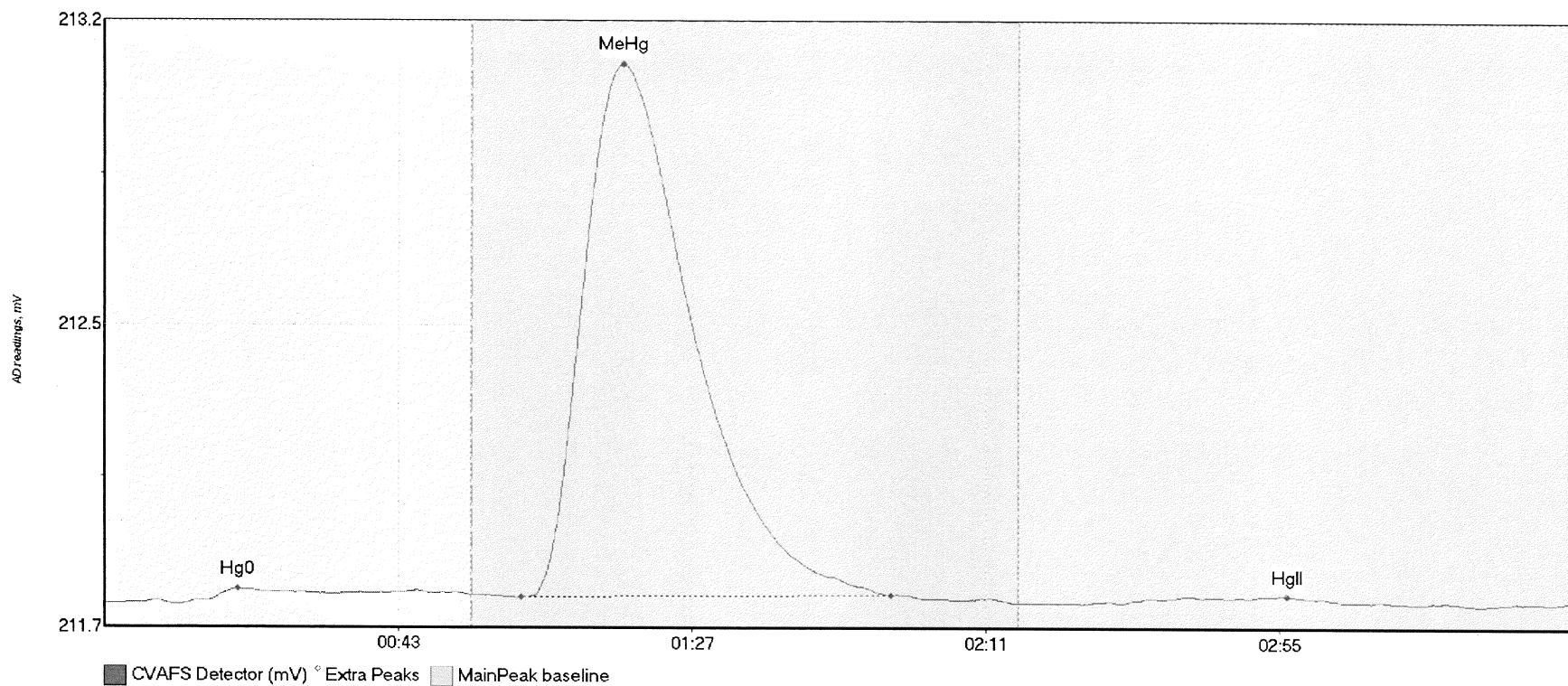
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLKB H	2.777	12.6	33.8	211.79	211.81	24.7	0.031	OK	211.7881	0.00	0.00	
*F710421-BLKB H	15.283	146.1	195.8	211.79	211.79	165.6	0.055	OK	211.7881	0.00	0.00	017

#44: *F710421-BLKC



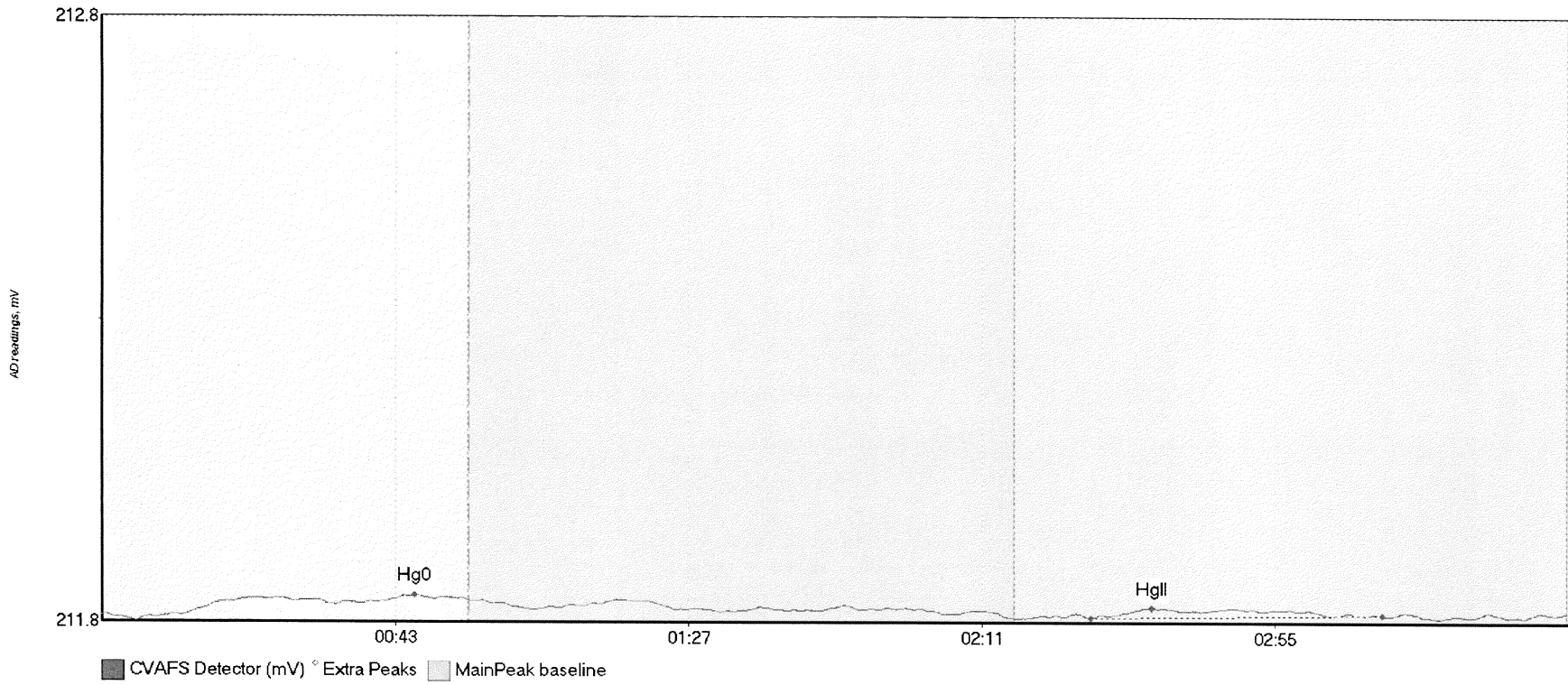
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLKC H	5.457	13.4	55.0	211.78	211.81	49.9	0.040	CT	211.7847	0.00	0.01	
*F710421-BLKC H	4.041	150.6	190.3	211.80	211.80	165.9	0.019	OK	211.7847	0.00	0.01	017

#45: SEQ-CCV3



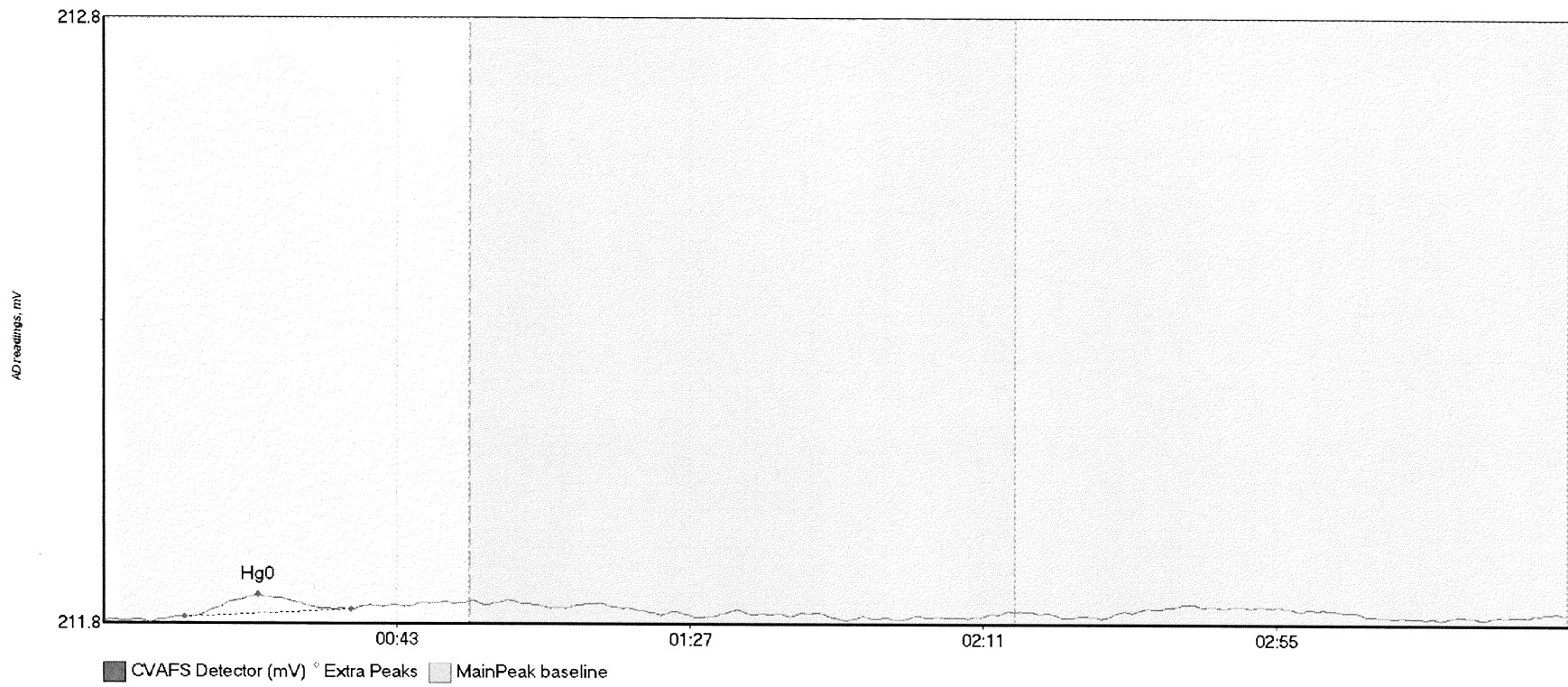
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	6.210	11.7	55.0	211.79	211.82	20.0	0.035	CT	211.7963	0.00	0.00	
SEQ-CCV3 MeHg	242.664	62.5	117.9	211.81	211.82	77.8	1.280	OK	211.7963	0.00	0.00	
SEQ-CCV3 HgII	3.636	152.1	185.6	211.80	211.80	177.2	0.019	OK	211.7963	0.00	0.00	

#46: SEQ-CCB3



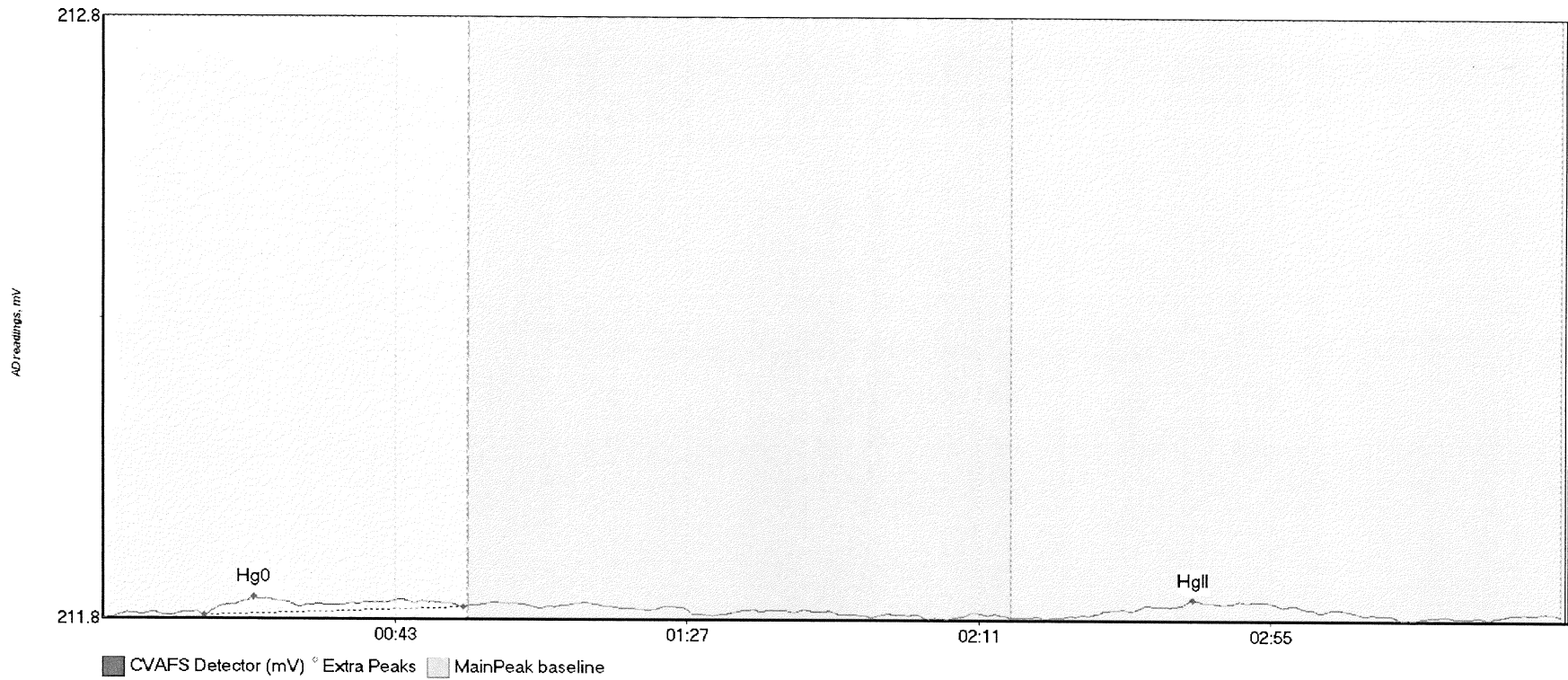
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	4.957	12.0	55.0	211.78	211.81	46.8	0.033	CT	211.7848	0.00	0.00	
SEQ-CCB3 HgII	3.815	148.3	192.2	211.78	211.78	157.4	0.017	OK	211.7848	0.00	0.00	017

#47: *F710421-BLKD



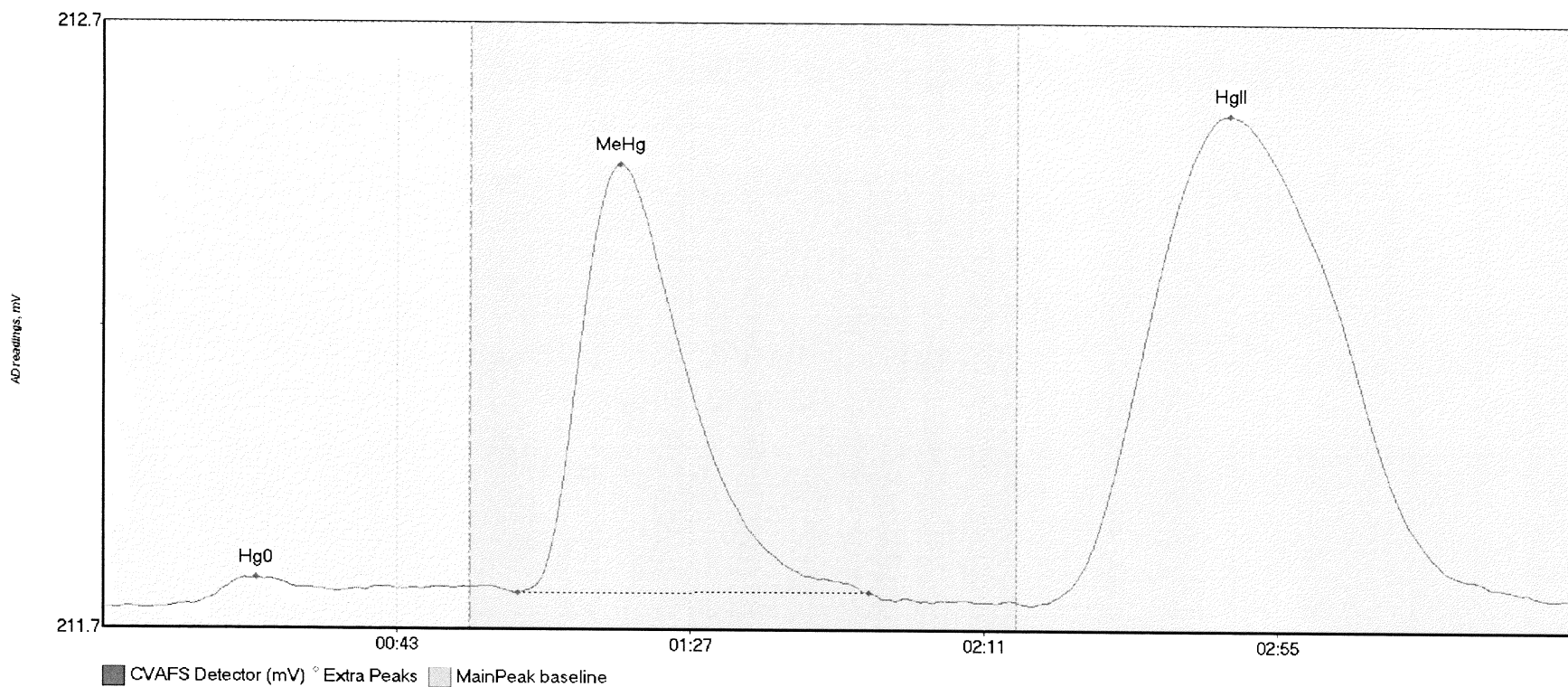
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLKD	3.755	12.1	37.2	211.78	211.79	23.1	0.037	OK	211.7747	0.00	0.01	017

#48: *F710421-BLKE



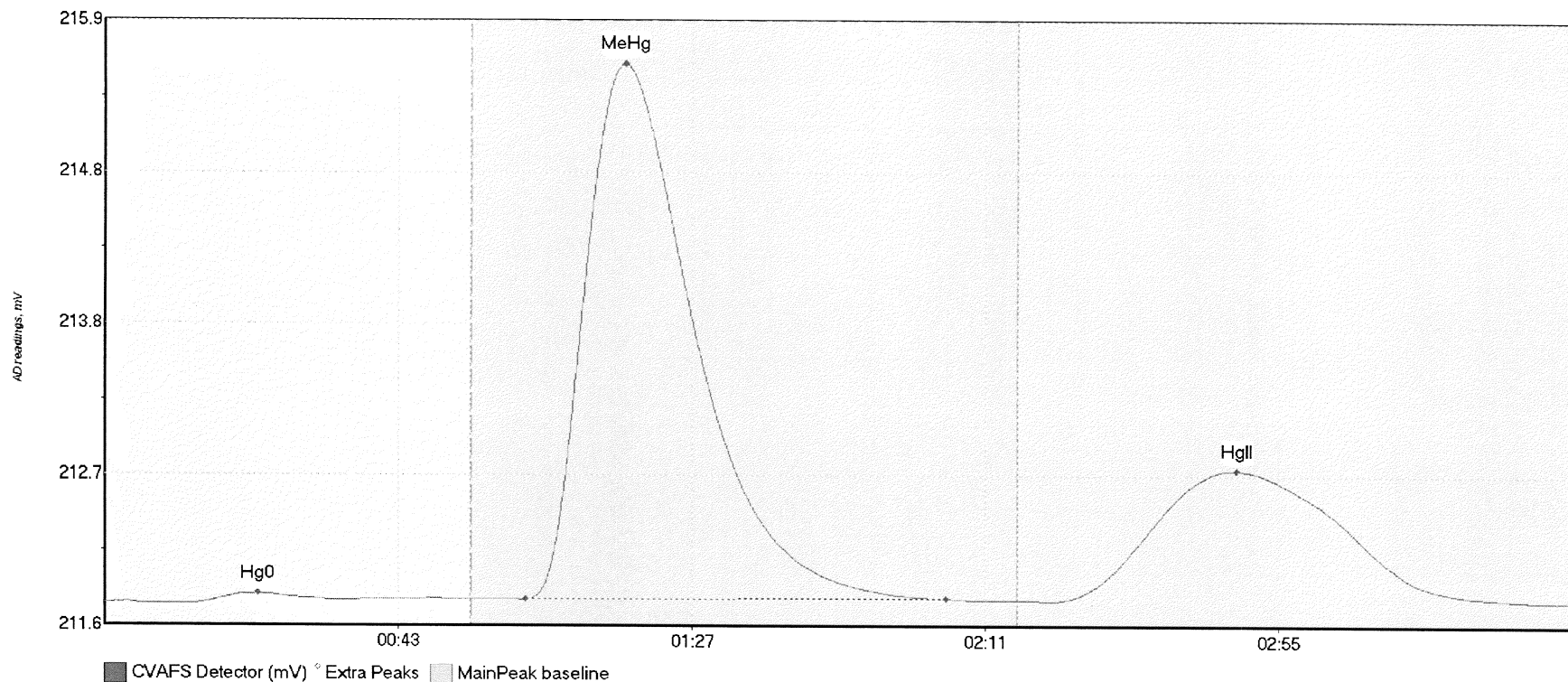
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLKE H	5.160	15.3	54.3	211.78	211.79	22.7	0.029	OK	211.7733	0.00	0.01	
*F710421-BLKE H	5.872	148.5	190.1	211.78	211.78	164.3	0.026	OK	211.7733	0.00	0.01	017

#49: F710421-DUP2



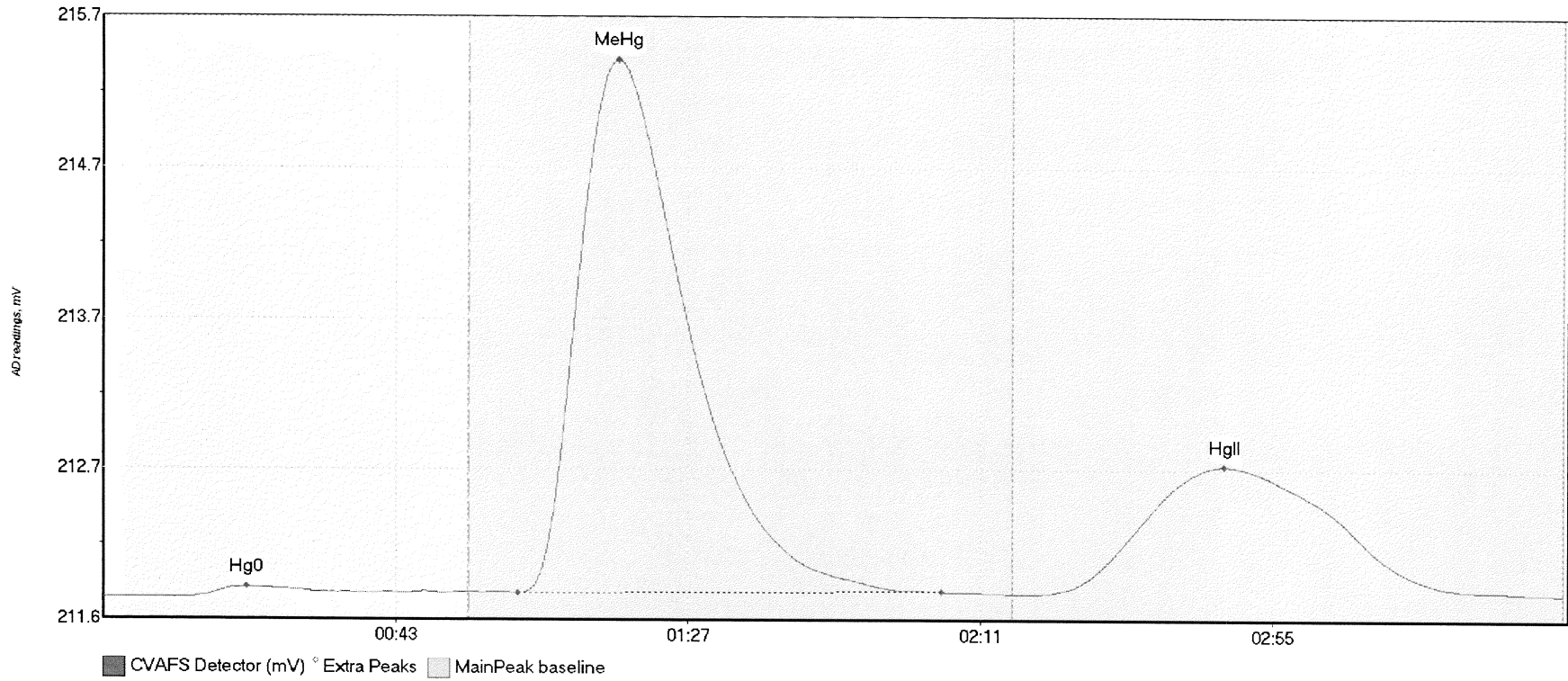
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-DUP2 Hg	3.900	13.5	35.2	211.79	211.81	23.0	0.043	OK	211.7824	0.00	0.02	
F710421-DUP2 Me	130.011	62.1	114.8	211.81	211.81	77.5	0.708	OK	211.7824	0.00	0.02	
F710421-DUP2 Hg	256.092	141.1	218.1	211.79	211.80	168.8	0.806	OK	211.7824	0.00	0.02	017

#50: F710421-MS3



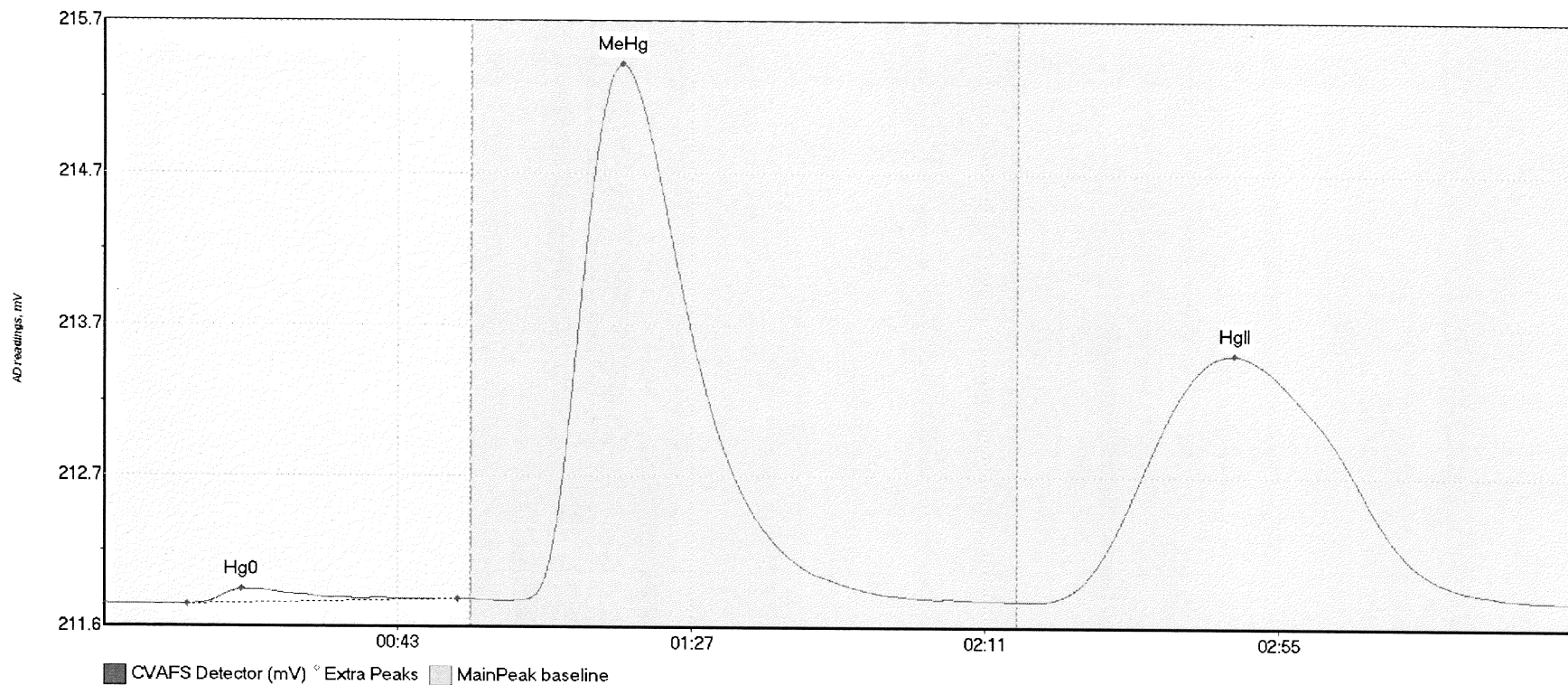
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MS3 Hg0	6.616	11.8	34.1	211.79	211.82	23.0	0.075	OK	211.8013	0.00	0.01	
F710421-MS3 MeH	714.185	63.1	126.2	211.82	211.83	78.0	3.771	OK	211.8013	0.00	0.01	
F710421-MS3 HgI	291.920	141.7	213.2	211.81	211.82	169.8	0.927	OK	211.8013	0.00	0.01	

#51: F710421-MSD3



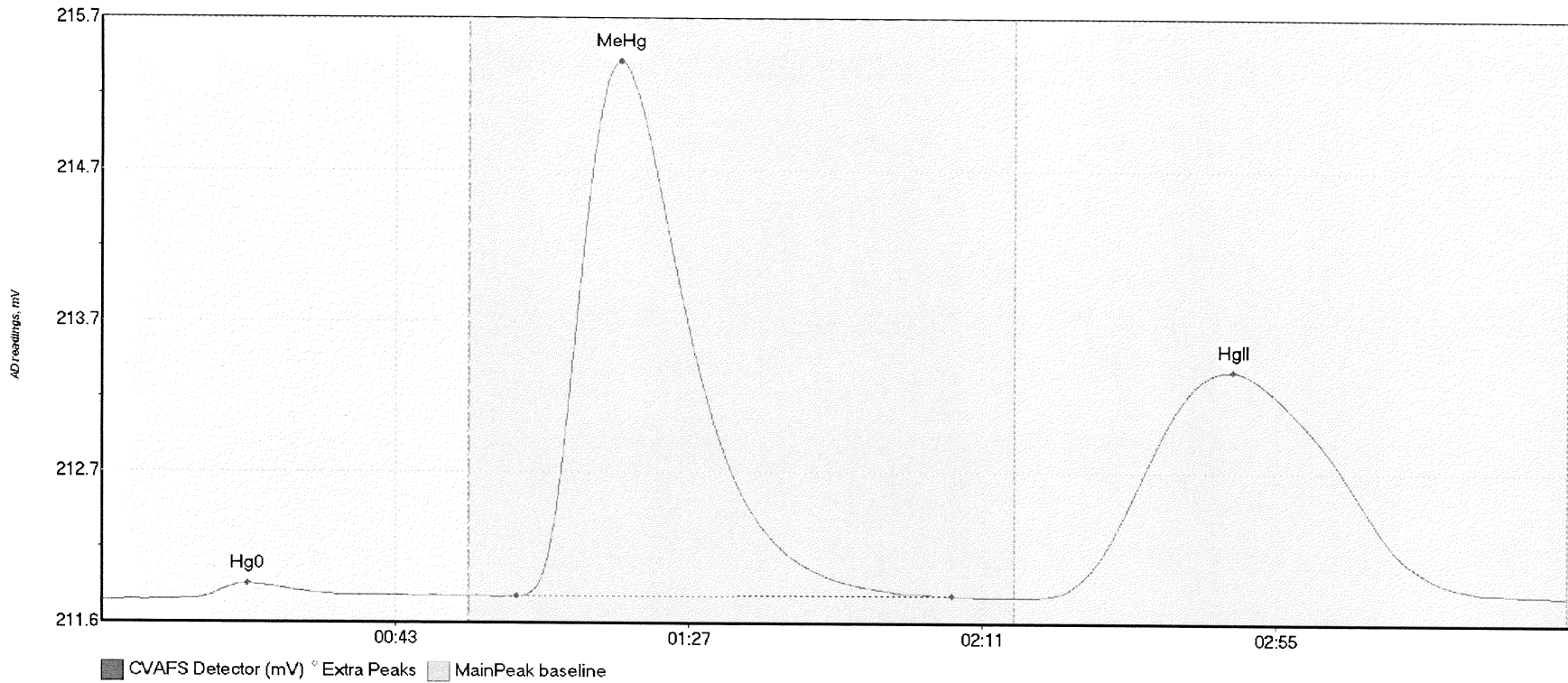
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MSD3 Hg	10.419	11.4	51.7	211.79	211.83	21.6	0.072	OK	211.7945	0.00	0.03	
F710421-MSD3 Me	689.627	62.5	126.1	211.82	211.84	77.6	3.625	OK	211.7945	0.00	0.03	
F710421-MSD3 Hg	280.911	140.0	216.3	211.82	211.82	168.8	0.875	OK	211.7945	0.00	0.03	

#52: F710421-MS4



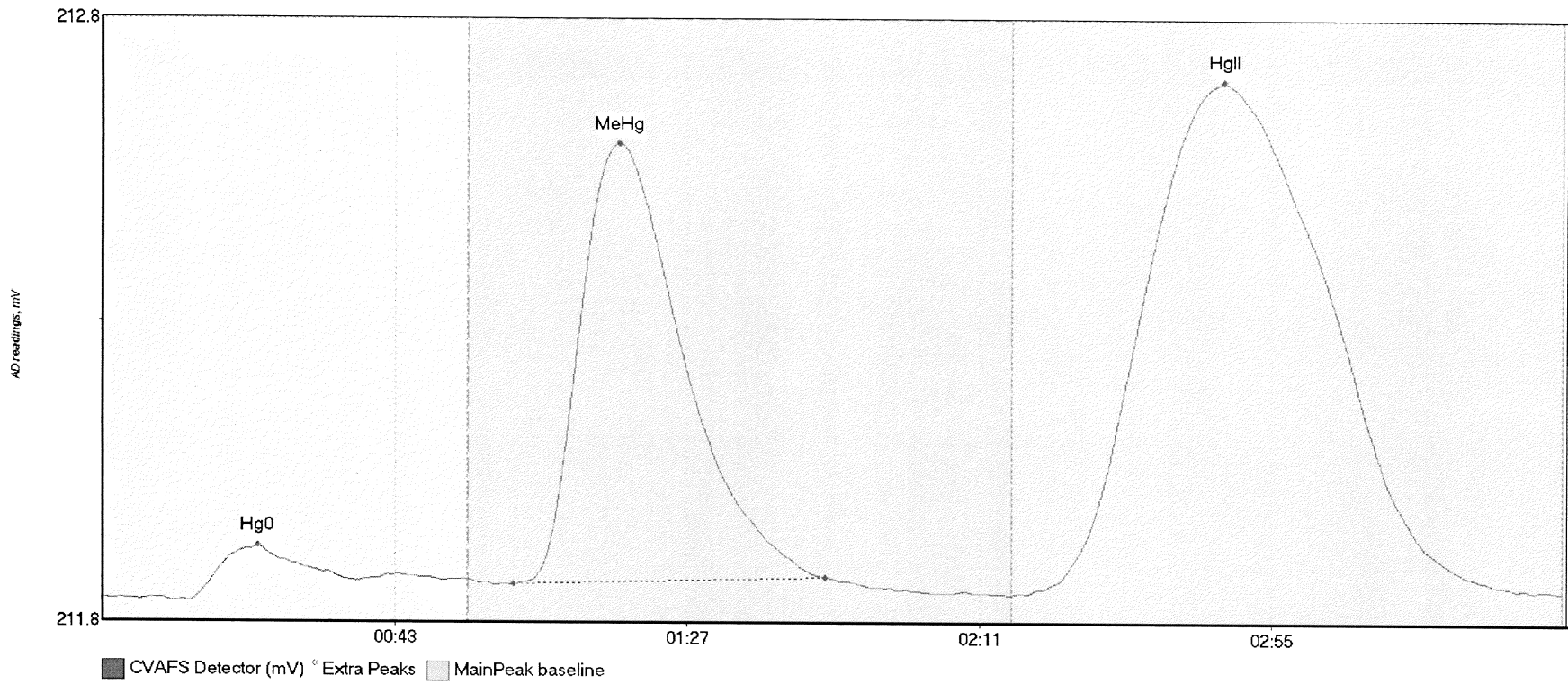
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MS4 Hg0	14.316	12.5	53.0	211.80	211.83	20.6	0.102	OK	211.8013	0.00	0.03	
F710421-MS4 MeH	685.130	61.7	124.8	211.83	211.84	77.6	3.625	OK	211.8013	0.00	0.03	
F710421-MS4 HgI	539.443	139.1	218.4	211.82	211.83	169.3	1.680	OK	211.8013	0.00	0.03	

#53: F710421-MSD4



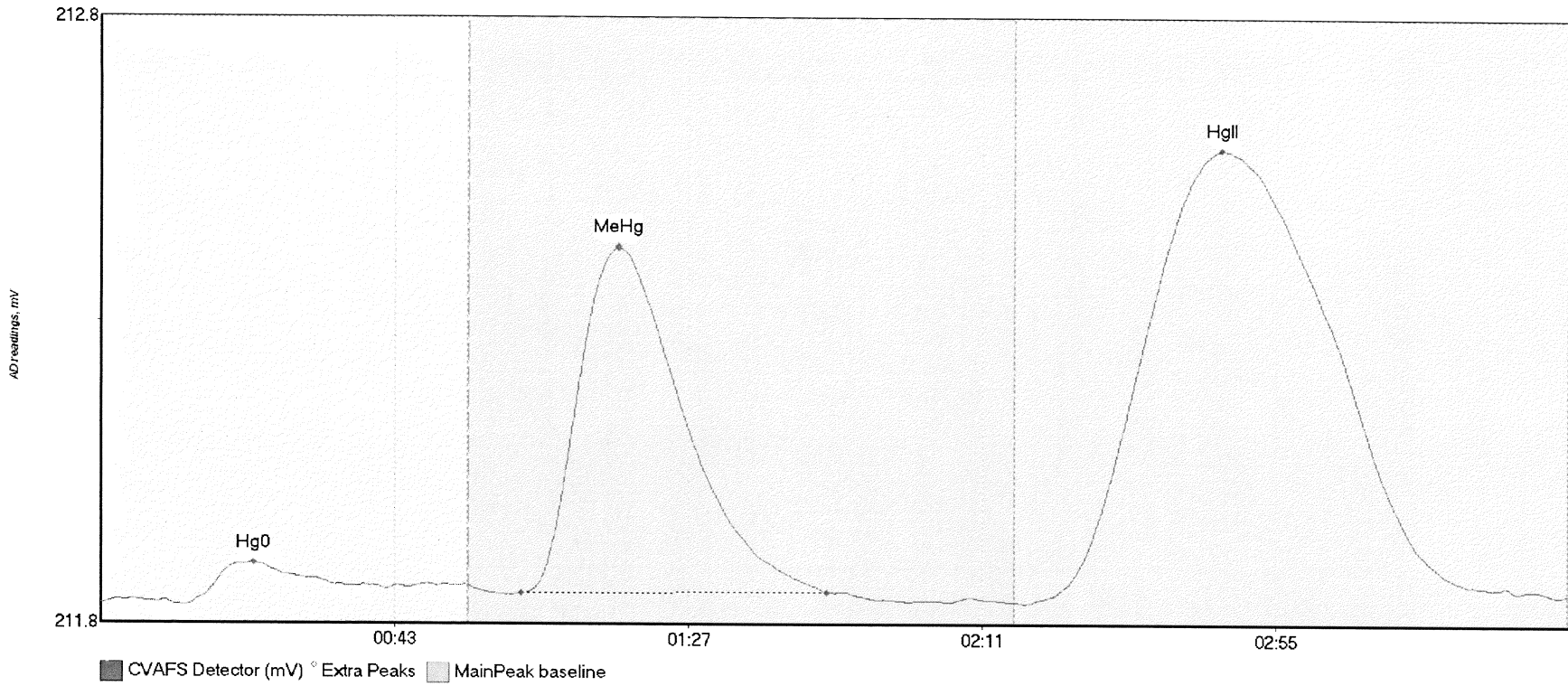
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MSD4 Hg	13.992	6.5	53.0	211.80	211.83	21.9	0.106	OK	211.7953	0.00	0.04	
F710421-MSD4 Me	677.199	62.2	127.4	211.83	211.83	77.7	3.580	OK	211.7953	0.00	0.04	
F710421-MSD4 Hg	480.198	140.1	219.8	211.82	211.83	169.6	1.522	CT	211.7953	0.00	0.04	

#54: 1708118-01RE1



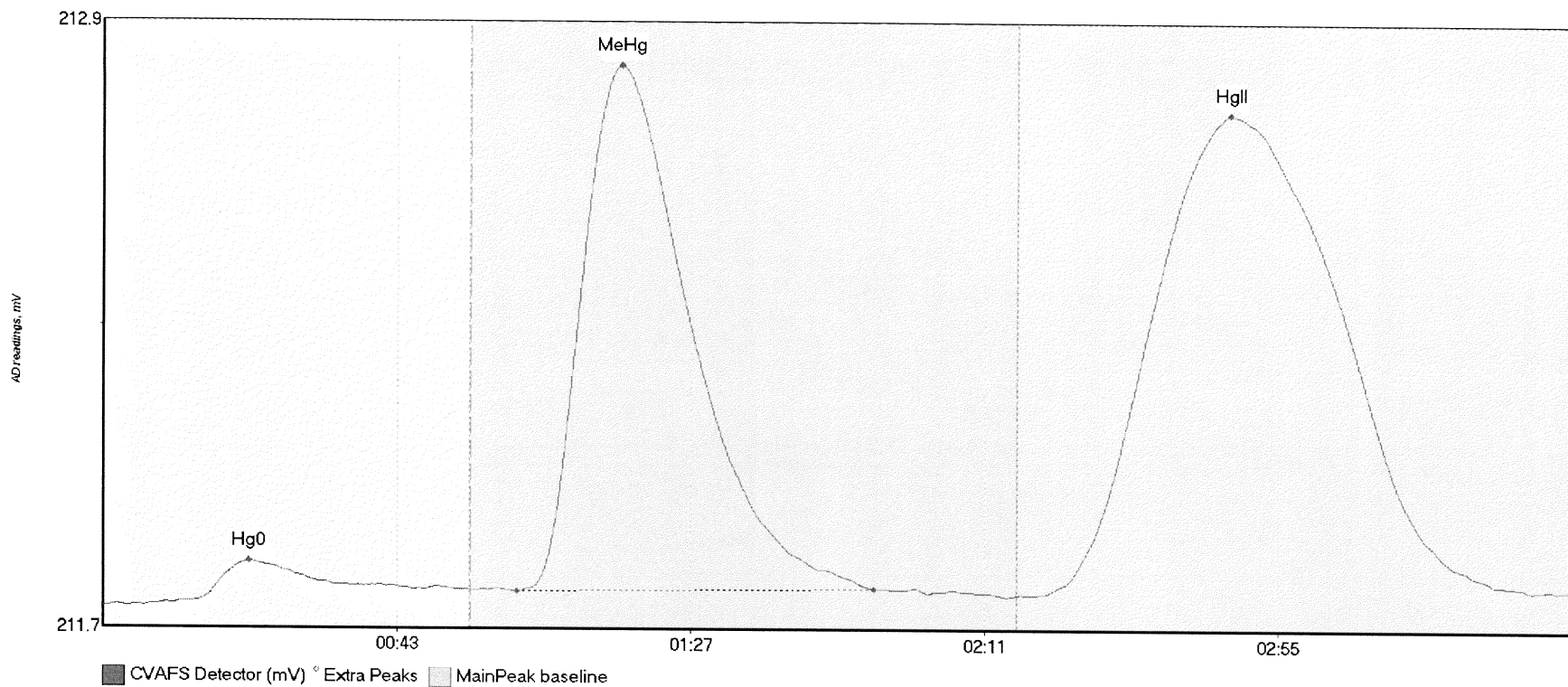
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-01RE1 H	9.810	12.9	38.5	211.79	211.82	23.3	0.091	OK	211.7952	0.00	0.01	
1708118-01RE1 M	130.522	61.8	108.8	211.82	211.83	77.8	0.731	OK	211.7952	0.00	0.01	
1708118-01RE1 H	267.168	139.1	219.8	211.80	211.81	168.8	0.850	CT	211.7952	0.00	0.01	

#55: 1708118-02RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-02RE1 H	8.672	12.8	42.8	211.79	211.81	22.8	0.070	OK	211.7900	0.00	0.02	
1708118-02RE1 M	103.625	62.9	108.7	211.81	211.81	77.5	0.571	OK	211.7900	0.00	0.02	
1708118-02RE1 H	237.034	138.8	218.8	211.79	211.80	167.8	0.750	OK	211.7900	0.00	0.02	

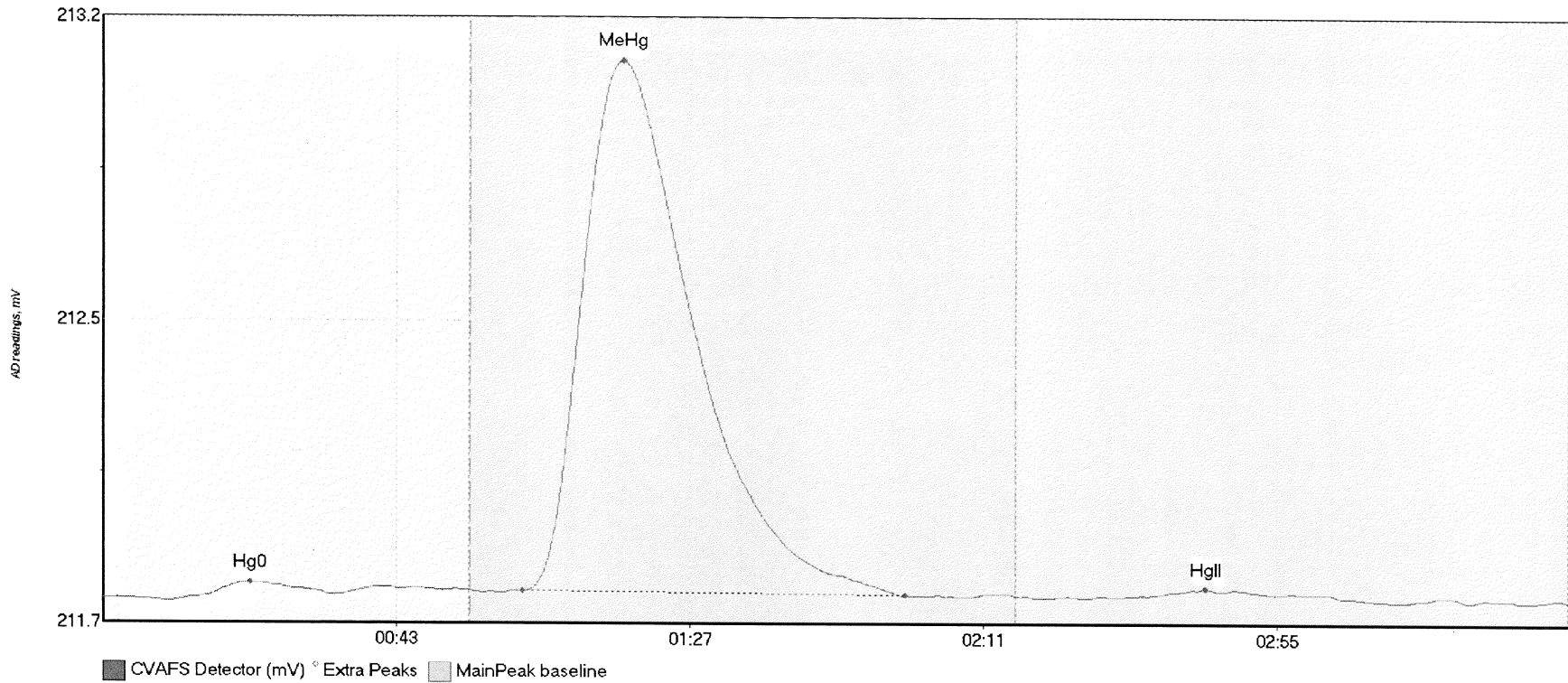
#56: 1708118-03RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-03RE1 H	12.137	8.1	55.0	211.80	211.82	21.9	0.084	CT	211.7918	0.00	0.04	
1708118-03RE1 M	189.696	62.0	115.5	211.82	211.83	77.6	1.015	OK	211.7918	0.00	0.04	
1708118-03RE1 H	294.353	140.6	214.2	211.82	211.83	168.8	0.926	OK	211.7918	0.00	0.04	

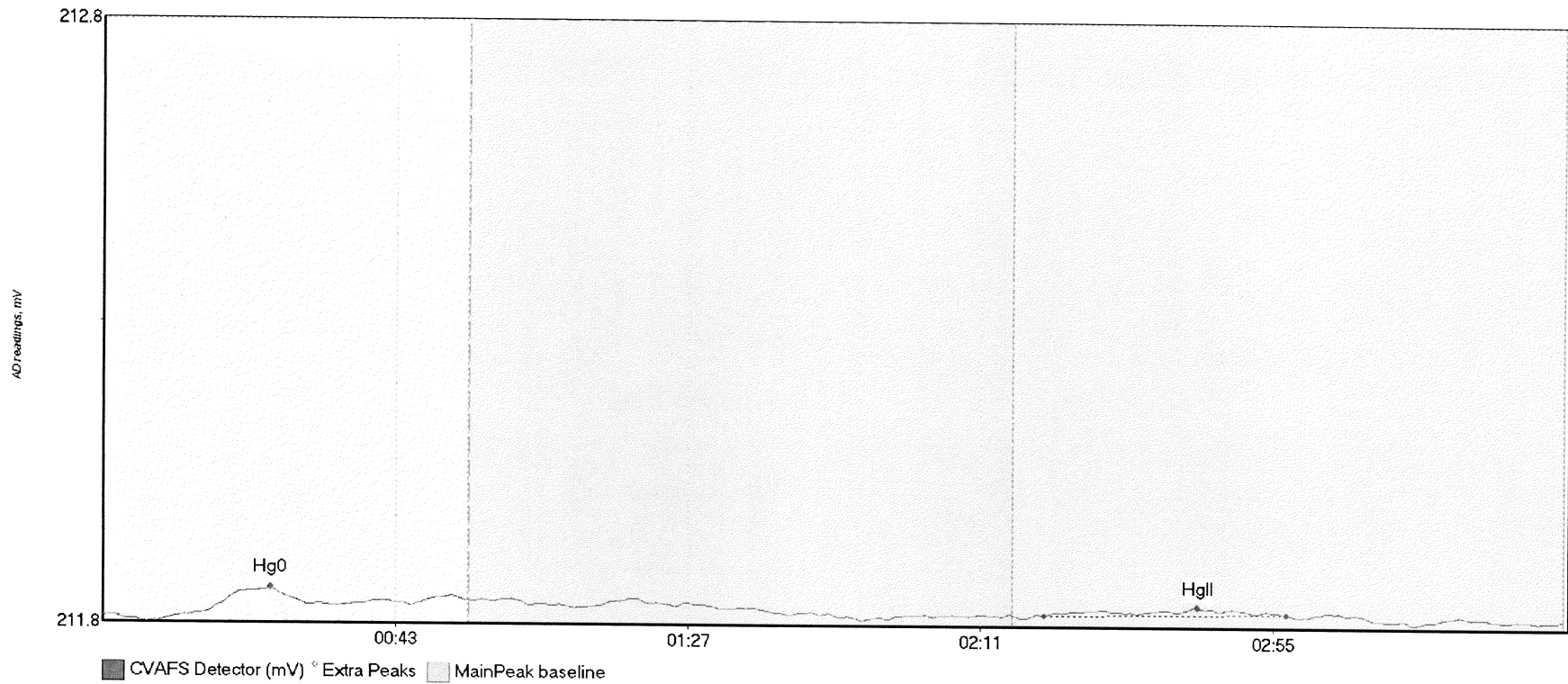
017

#57: SEQ-CCV4



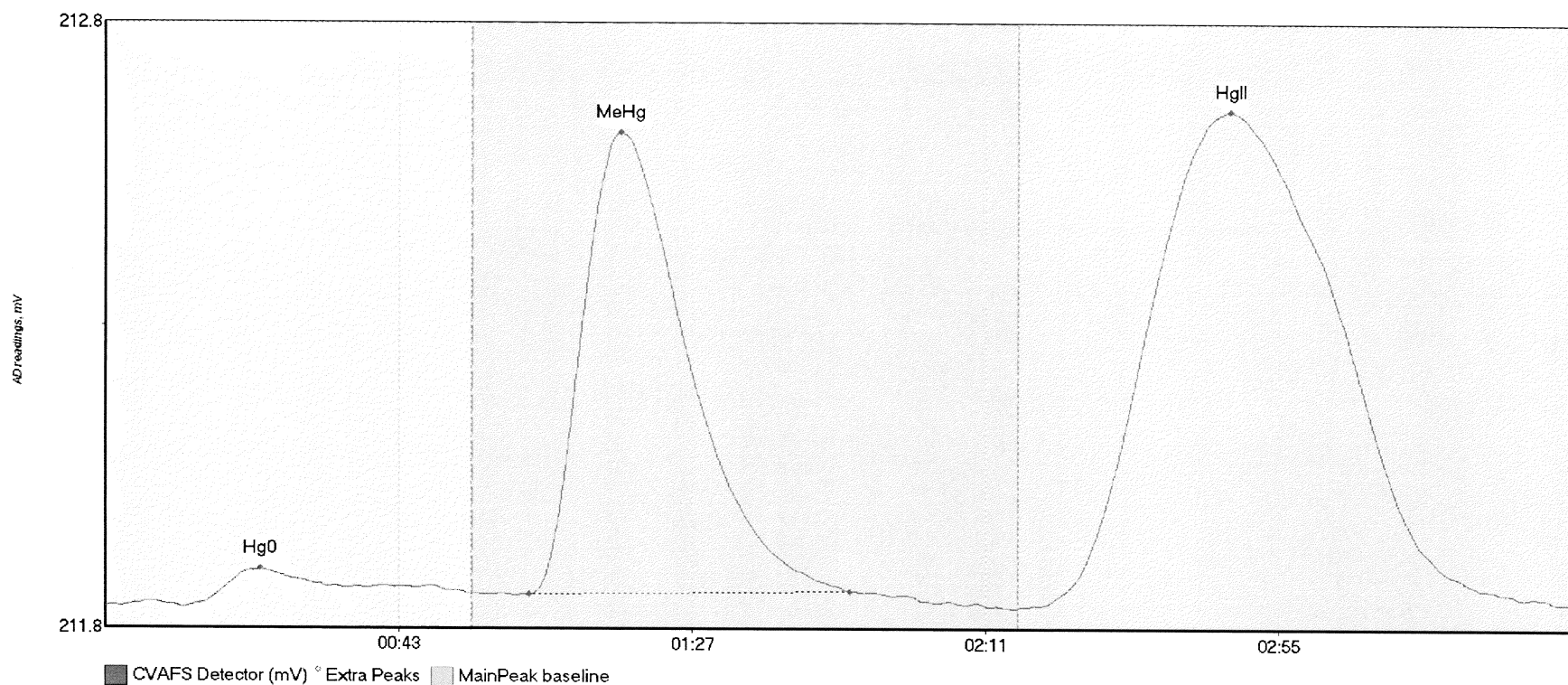
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	3.930	13.9	34.7	211.81	211.81	22.2	0.037	OK	211.8056	0.00	0.00	
SEQ-CCV4 MeHg	251.684	62.8	120.3	211.82	211.81	78.0	1.312	OK	211.8056	0.00	0.00	
SEQ-CCV4 HgII	1.603	157.3	175.7	211.81	211.82	165.3	0.017	OK	211.8056	0.00	0.00	

#58: SEQ-CCB4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	3.588	14.7	35.2	211.81	211.82	25.2	0.041	OK	211.8011	0.00	0.00	
SEQ-CCB4 HgII	2.415	141.6	178.0	211.81	211.81	164.6	0.016	OK	211.8011	0.00	0.00	017

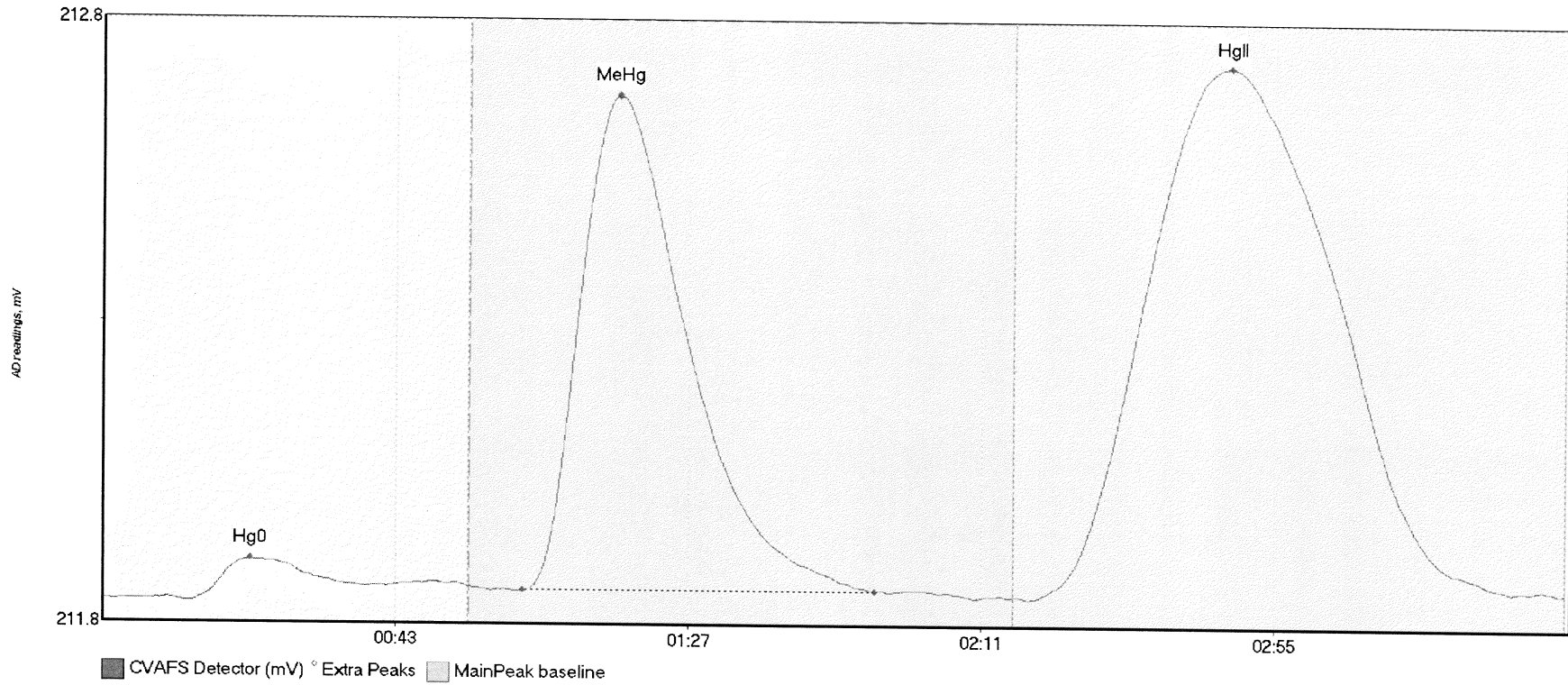
#59: 1708118-04RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-04RE1 H	9.465	14.7	54.7	211.81	211.82	23.3	0.056	OK	211.8033	0.00	0.01	
1708118-04RE1 M	138.469	63.6	111.6	211.82	211.83	77.3	0.763	OK	211.8033	0.00	0.01	
1708118-04RE1 H	261.105	140.9	218.5	211.81	211.81	168.7	0.817	OK	211.8033	0.00	0.01	

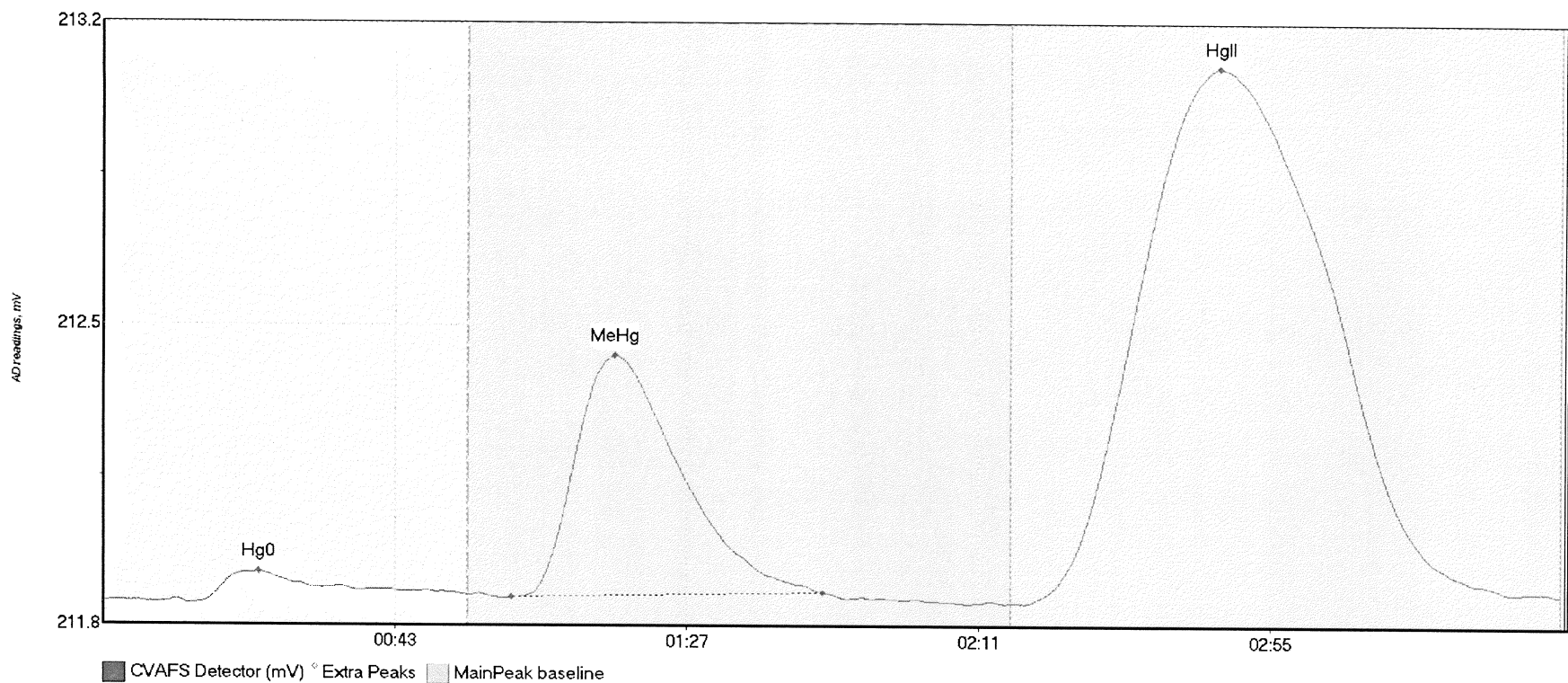
017

#60: 1708118-05RE1



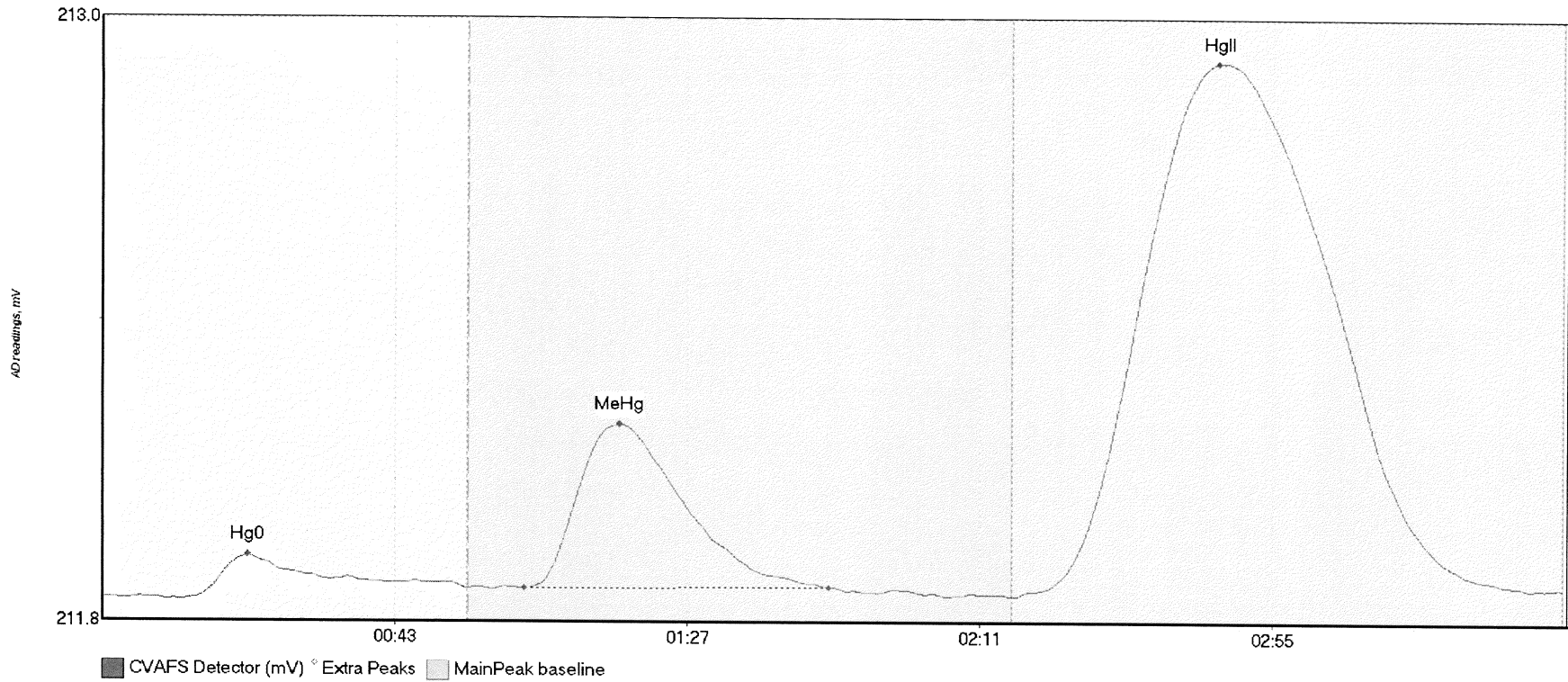
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-05RE1 H	11.660	13.2	55.0	211.80	211.83	22.1	0.076	CT	211.8067	0.00	0.02	
1708118-05RE1 M	165.022	63.0	116.0	211.82	211.83	77.5	0.888	OK	211.8067	0.00	0.02	
1708118-05RE1 H	304.678	139.8	219.2	211.81	211.83	169.3	0.958	OK	211.8067	0.00	0.02	

#61: 1708240-01RE1



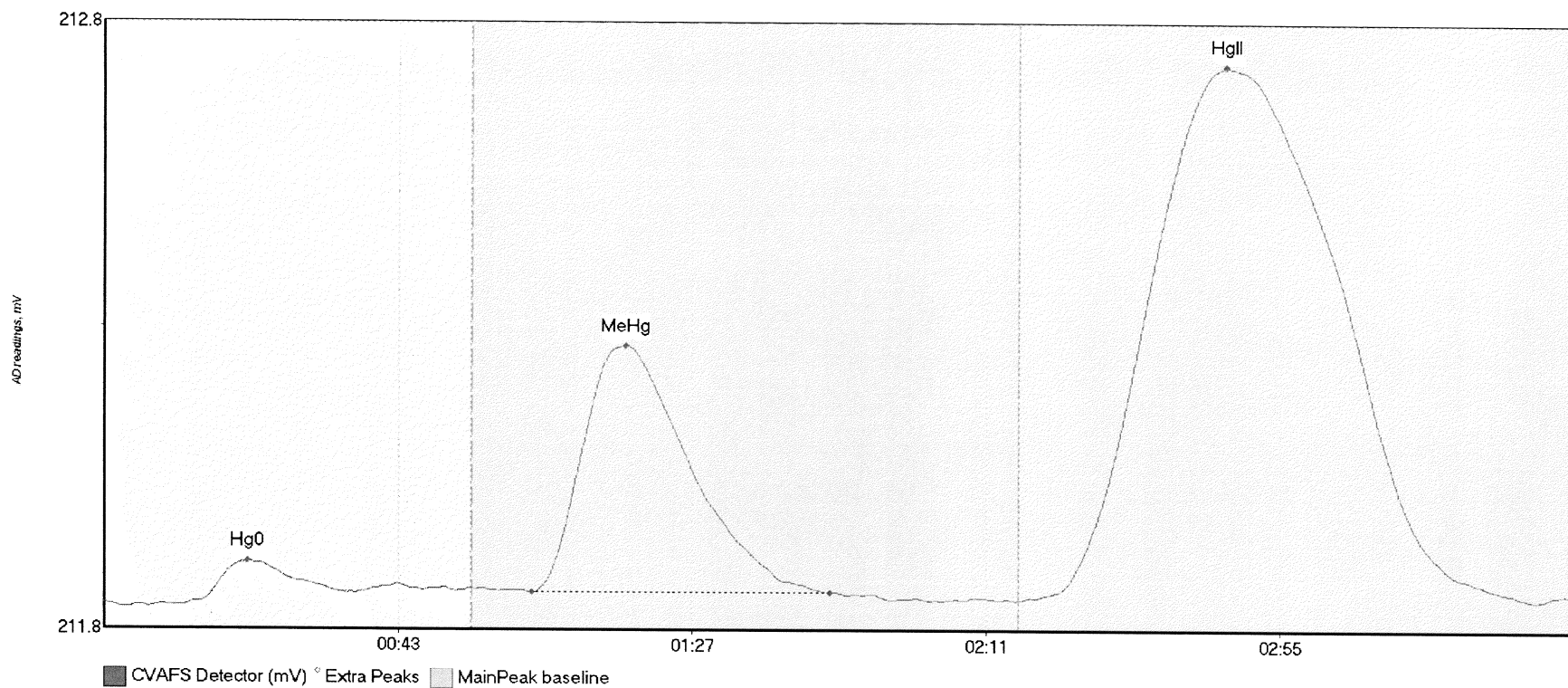
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-01RE1 H	12.214	13.3	55.0	211.81	211.83	23.5	0.076	CT	211.8140	0.00	0.02	
1708240-01RE1 M	105.098	61.6	108.4	211.82	211.84	77.2	0.581	OK	211.8140	0.00	0.02	
1708240-01RE1 H	413.668	139.1	219.3	211.81	211.83	168.3	1.289	OK	211.8140	0.00	0.02	017

#62: 1708240-02RE1



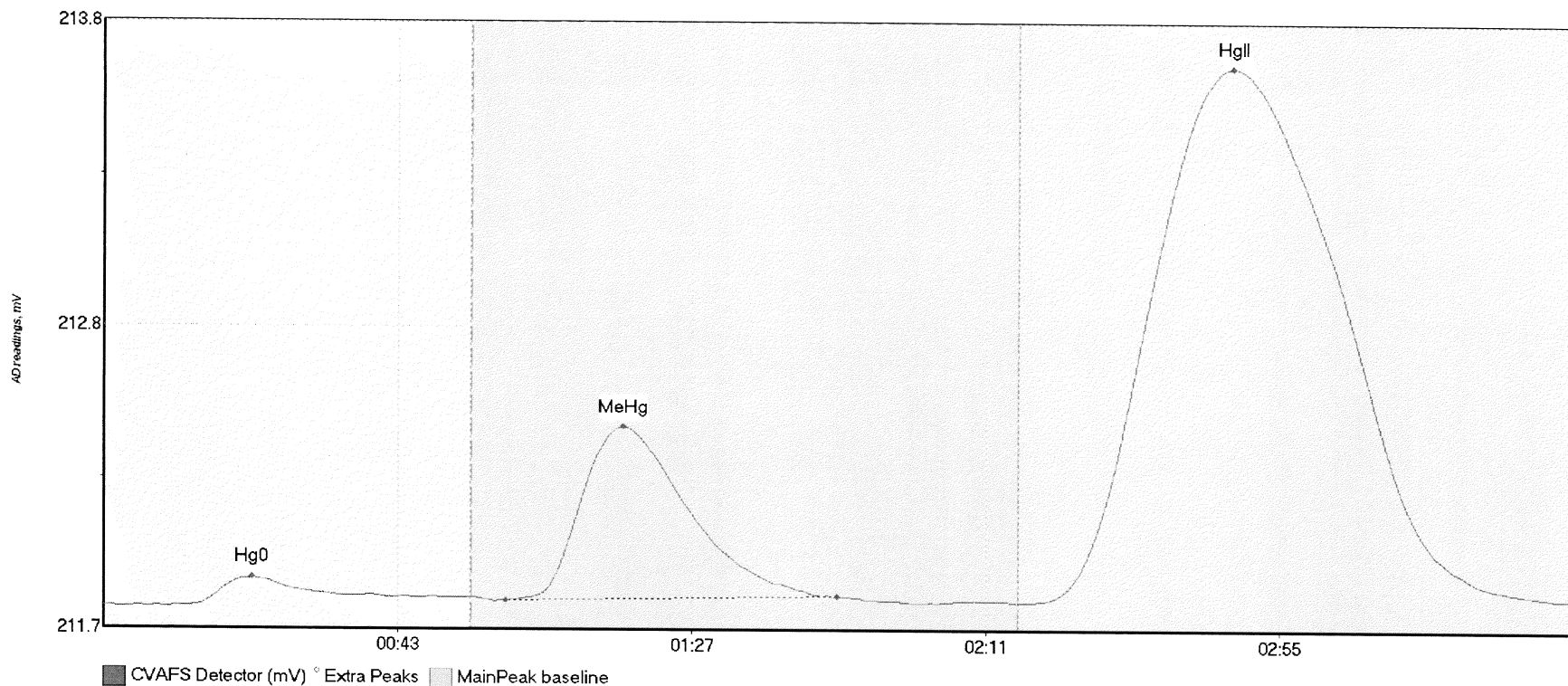
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-02RE1 H	13.500	13.3	54.9	211.80	211.82	21.9	0.086	OK	211.8062	0.00	0.02	
1708240-02RE1 M	61.173	63.5	109.3	211.82	211.83	77.8	0.335	OK	211.8062	0.00	0.02	
1708240-02RE1 H	344.515	137.5	214.9	211.81	211.83	167.9	1.086	OK	211.8062	0.00	0.02	

#63: 1708240-03RE1



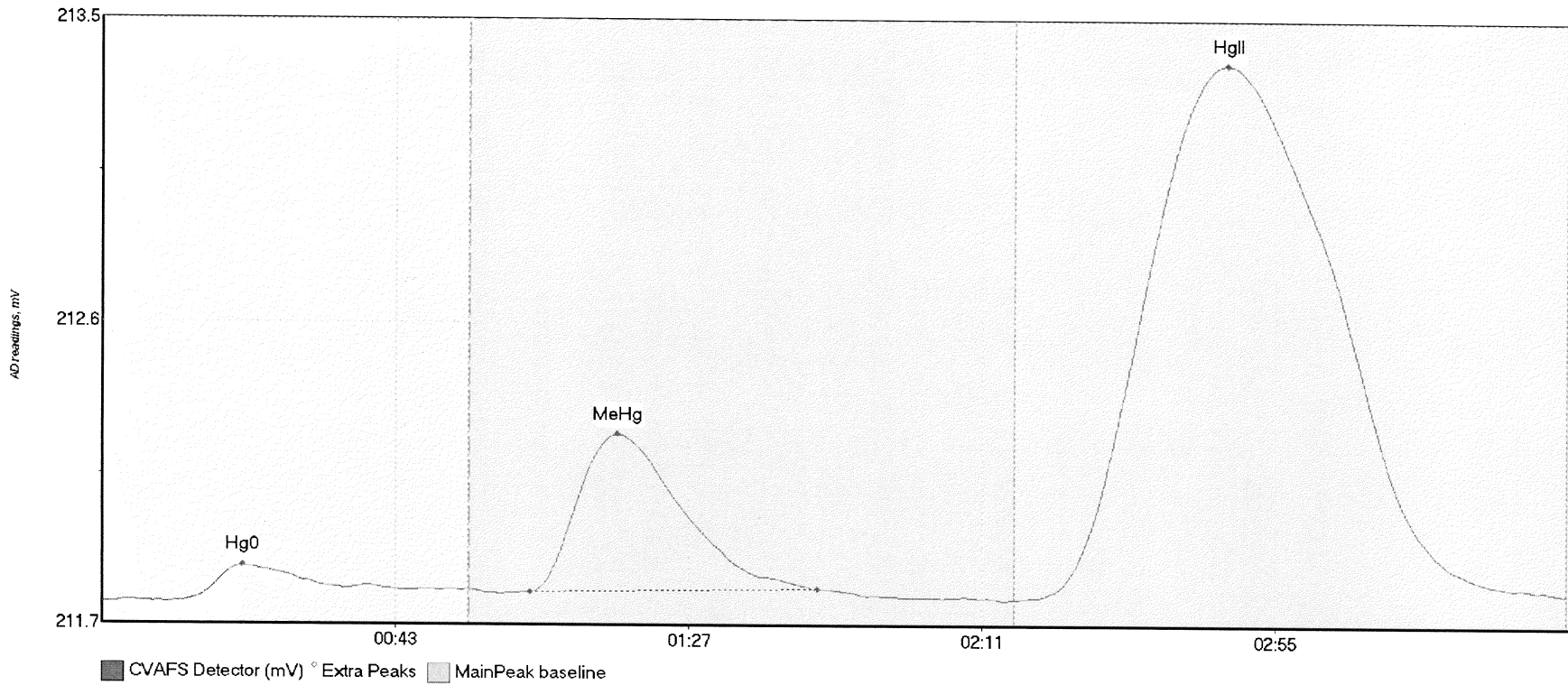
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-03RE1 H	7.367	14.1	37.5	211.81	211.83	21.5	0.071	OK	211.8094	0.00	0.02	
1708240-03RE1 M	81.171	64.0	108.6	211.83	211.83	78.0	0.442	OK	211.8094	0.00	0.02	
1708240-03RE1 H	304.955	139.3	212.5	211.82	211.82	167.8	0.952	OK	211.8094	0.00	0.02	

#64: 1708240-04RE1



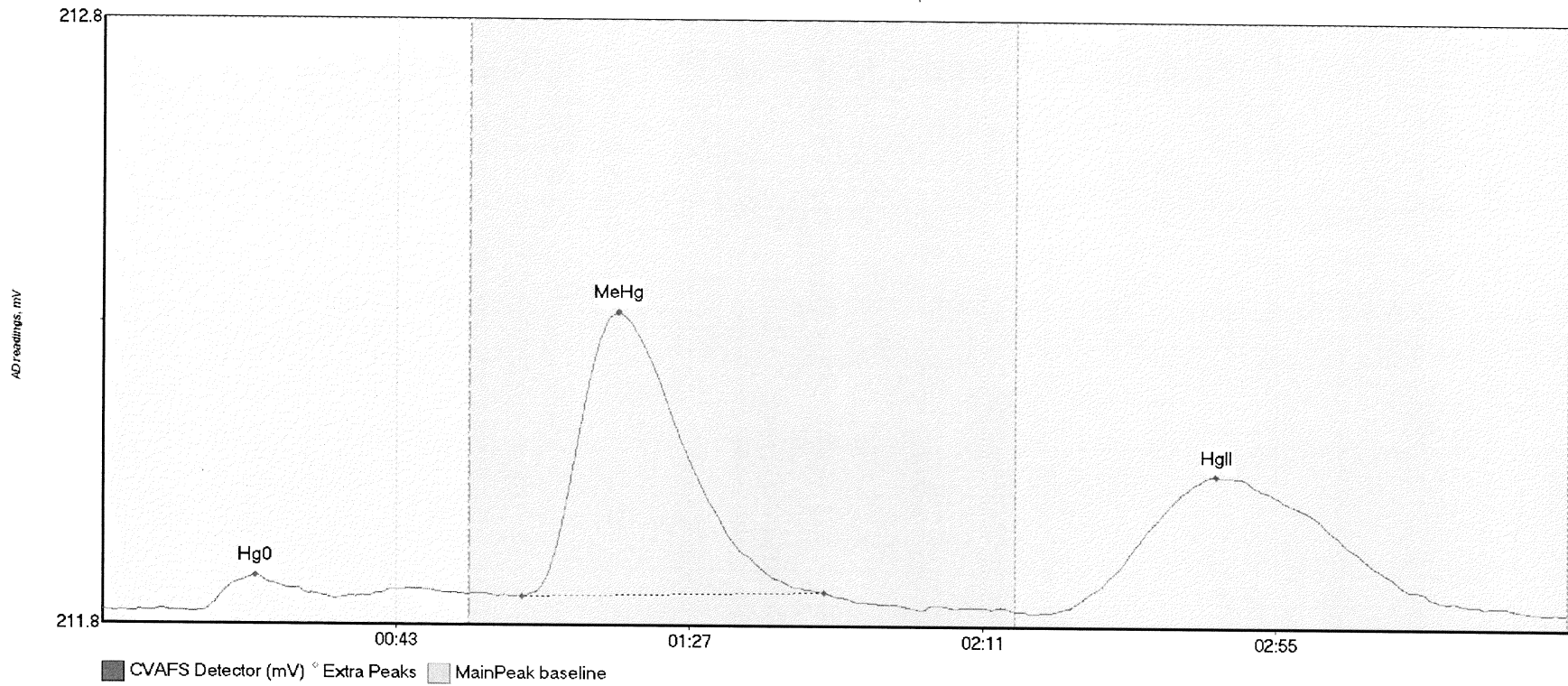
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-04RE1 H	13.011	12.7	52.5	211.81	211.83	22.1	0.096	OK	211.8053	0.00	0.03	
1708240-04RE1 M	110.105	60.1	109.7	211.83	211.84	77.7	0.604	OK	211.8053	0.00	0.03	
1708240-04RE1 H	590.355	140.3	219.8	211.82	211.83	168.9	1.860	CT	211.8053	0.00	0.03	

#65: 1708240-05RE1



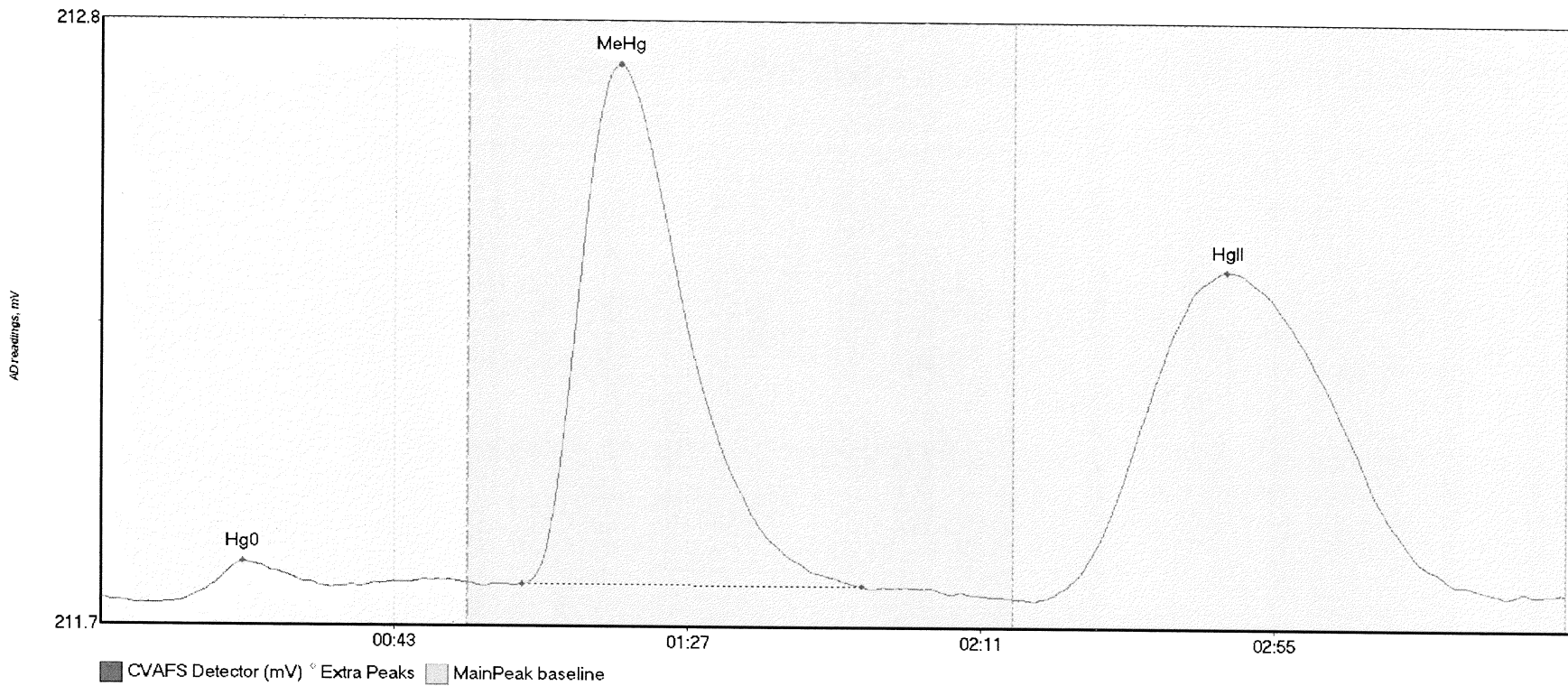
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-05RE1 H	13.588	11.7	45.3	211.80	211.83	21.2	0.105	OK	211.7926	0.00	0.03	
1708240-05RE1 M	84.782	64.2	107.3	211.82	211.83	77.3	0.475	OK	211.7926	0.00	0.03	
1708240-05RE1 H	509.209	139.9	219.4	211.81	211.83	168.7	1.603	OK	211.7926	0.00	0.03	

#66: 1708241-01RE1



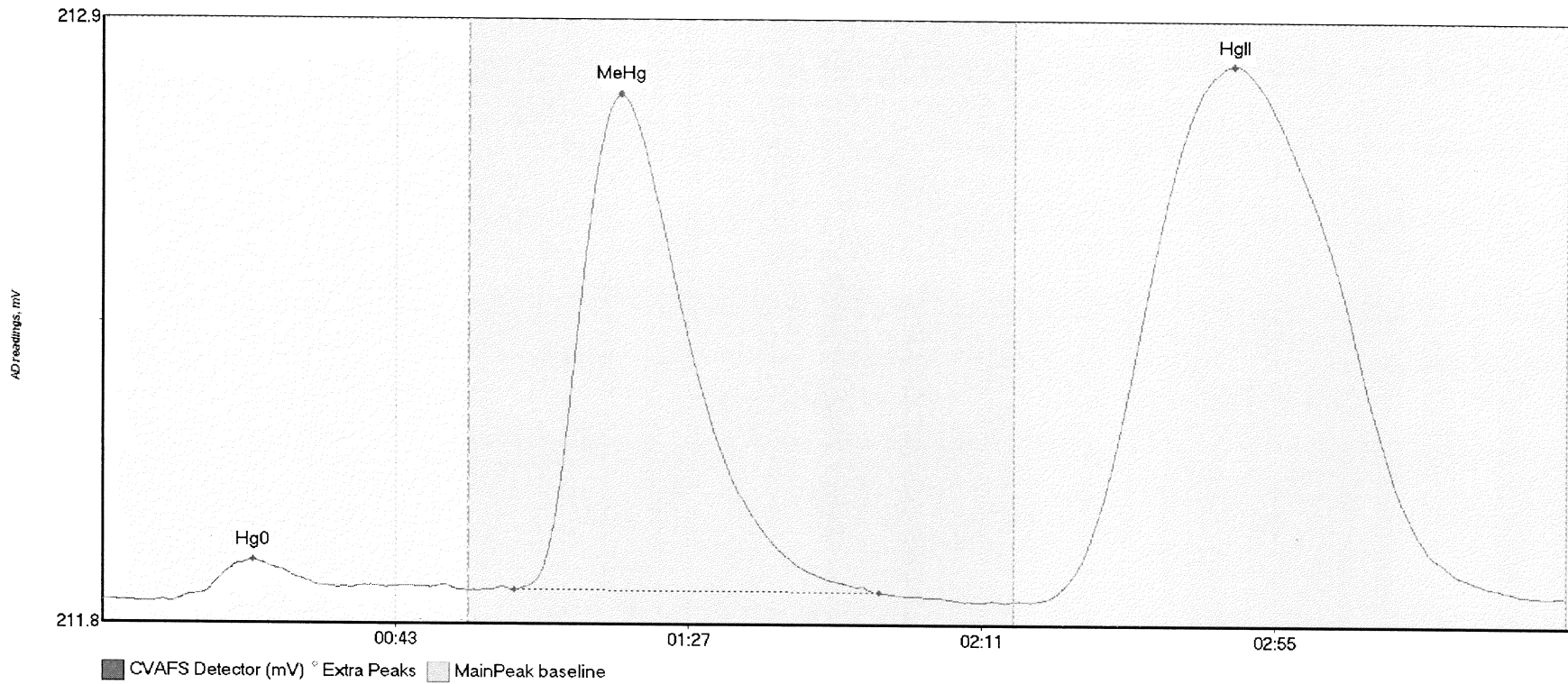
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-01RE1 H	5.028	15.1	34.8	211.79	211.81	22.9	0.058	OK	211.7903	0.00	0.00	
1708241-01RE1 M	83.441	62.9	108.1	211.81	211.82	77.3	0.469	OK	211.7903	0.00	0.00	
1708241-01RE1 H	71.186	142.5	213.2	211.79	211.80	167.0	0.226	OK	211.7903	0.00	0.00	017

#67: 1708241-02RE1



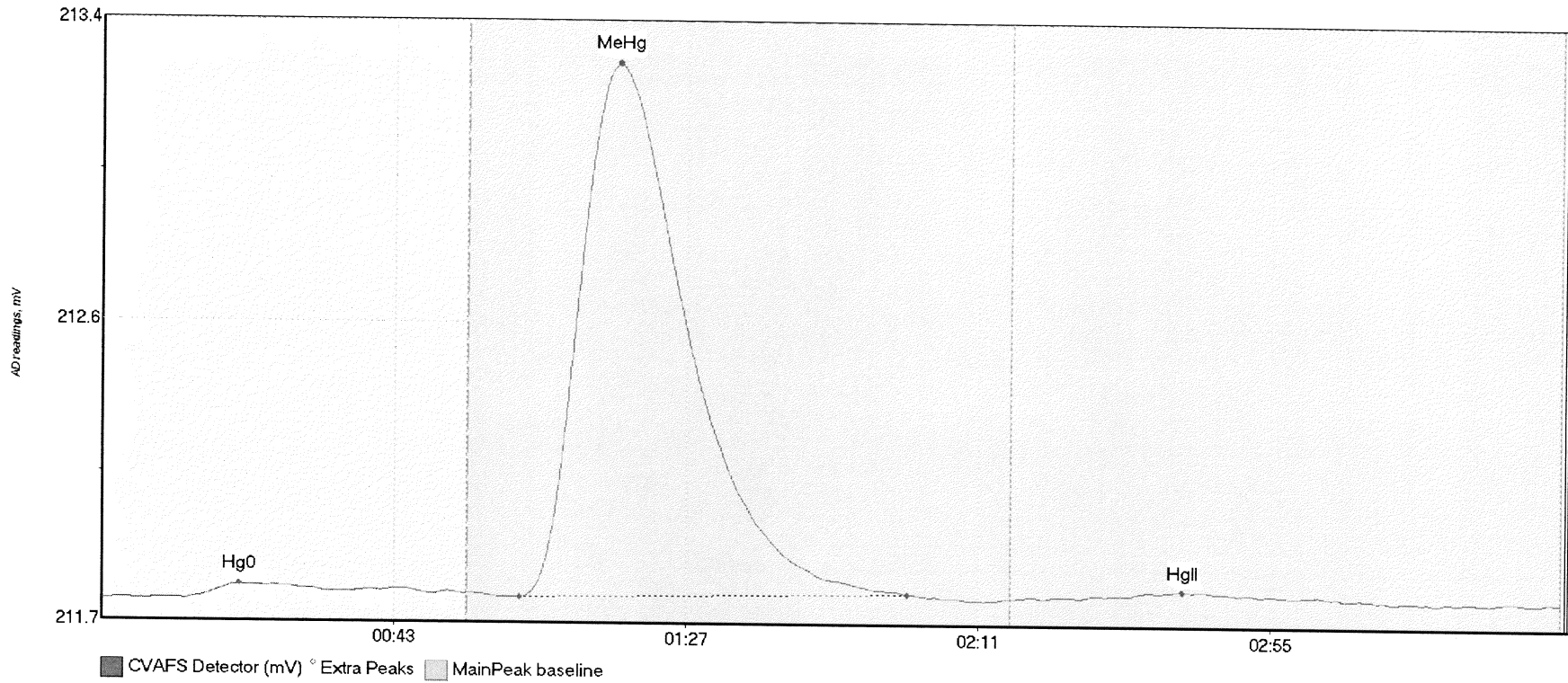
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-02RE1 H	6.152	11.5	34.4	211.79	211.81	21.3	0.068	OK	211.7913	0.00	0.02	
1708241-02RE1 M	165.284	63.2	114.1	211.82	211.82	77.7	0.902	OK	211.7913	0.00	0.02	
1708241-02RE1 H	179.980	141.3	210.7	211.80	211.80	168.7	0.570	OK	211.7913	0.00	0.02	

#68: 1708241-03RE1



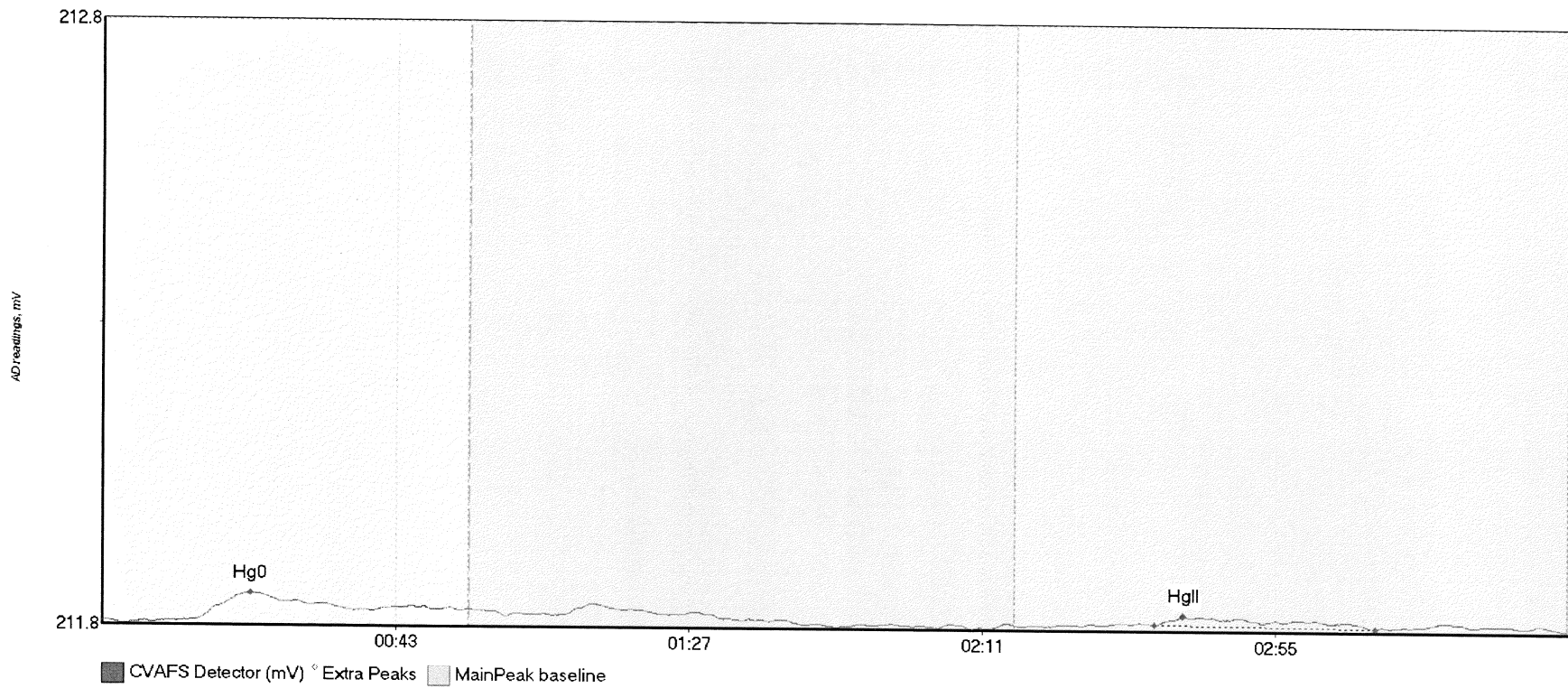
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-03RE1 H	11.305	10.2	55.0	211.80	211.82	22.6	0.077	CT	211.8002	0.00	0.01	
1708241-03RE1 M	169.801	61.8	116.6	211.82	211.82	77.8	0.907	OK	211.8002	0.00	0.01	
1708241-03RE1 H	312.661	140.8	217.0	211.80	211.81	169.7	0.982	OK	211.8002	0.00	0.01	

#69: SEQ-CCV5



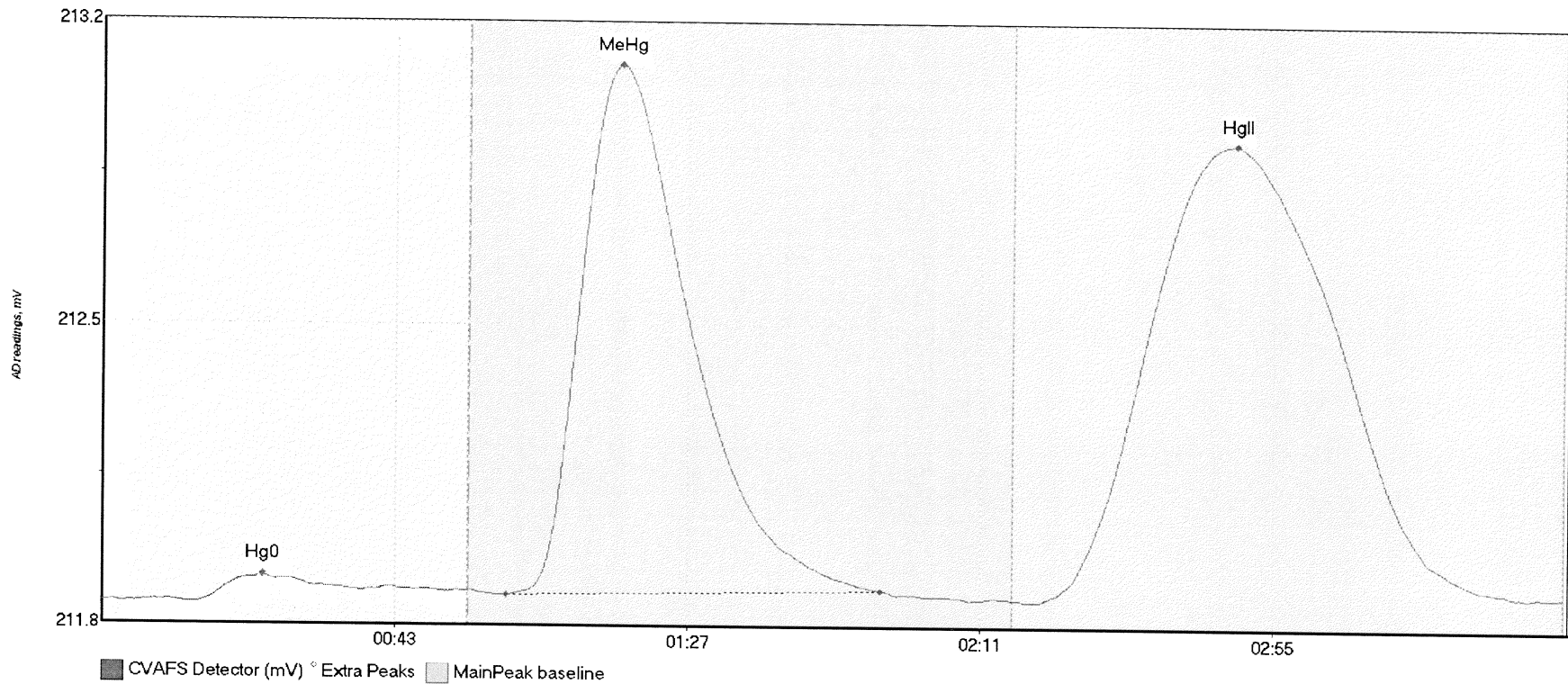
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	6.925	12.7	49.8	211.81	211.82	20.7	0.039	OK	211.8042	0.00	0.01	
SEQ-CCV5 MeHg	269.035	62.8	121.3	211.81	211.83	77.7	1.438	OK	211.8042	0.00	0.01	
SEQ-CCV5 HgII	4.570	147.7	187.3	211.82	211.82	162.8	0.021	OK	211.8042	0.00	0.01	

#70: SEQ-CCB5



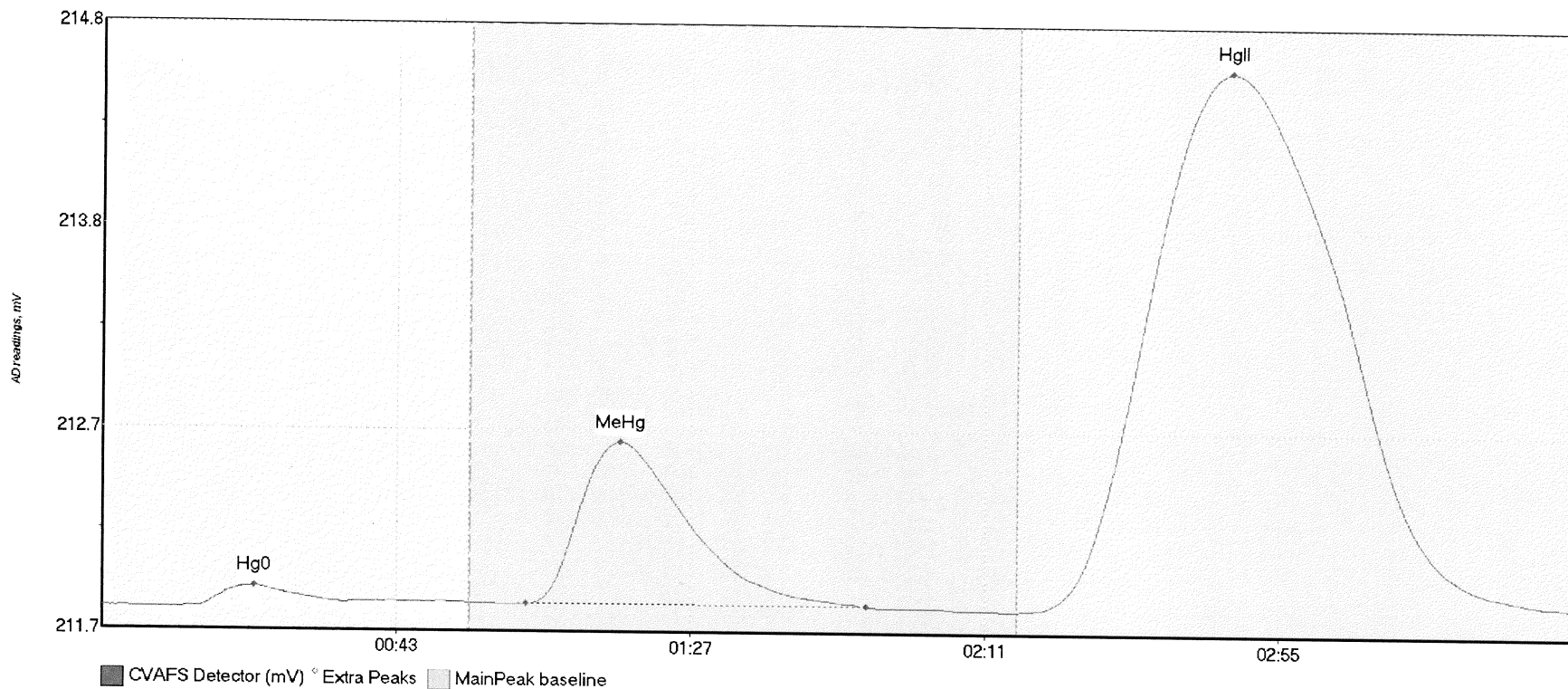
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	4.992	13.9	40.6	211.81	211.83	22.2	0.044	OK	211.8085	0.00	0.00	
SEQ-CCB5 HgII	3.049	157.9	191.0	211.81	211.81	162.2	0.014	OK	211.8085	0.00	0.00	017

#71: 1708241-04RE1



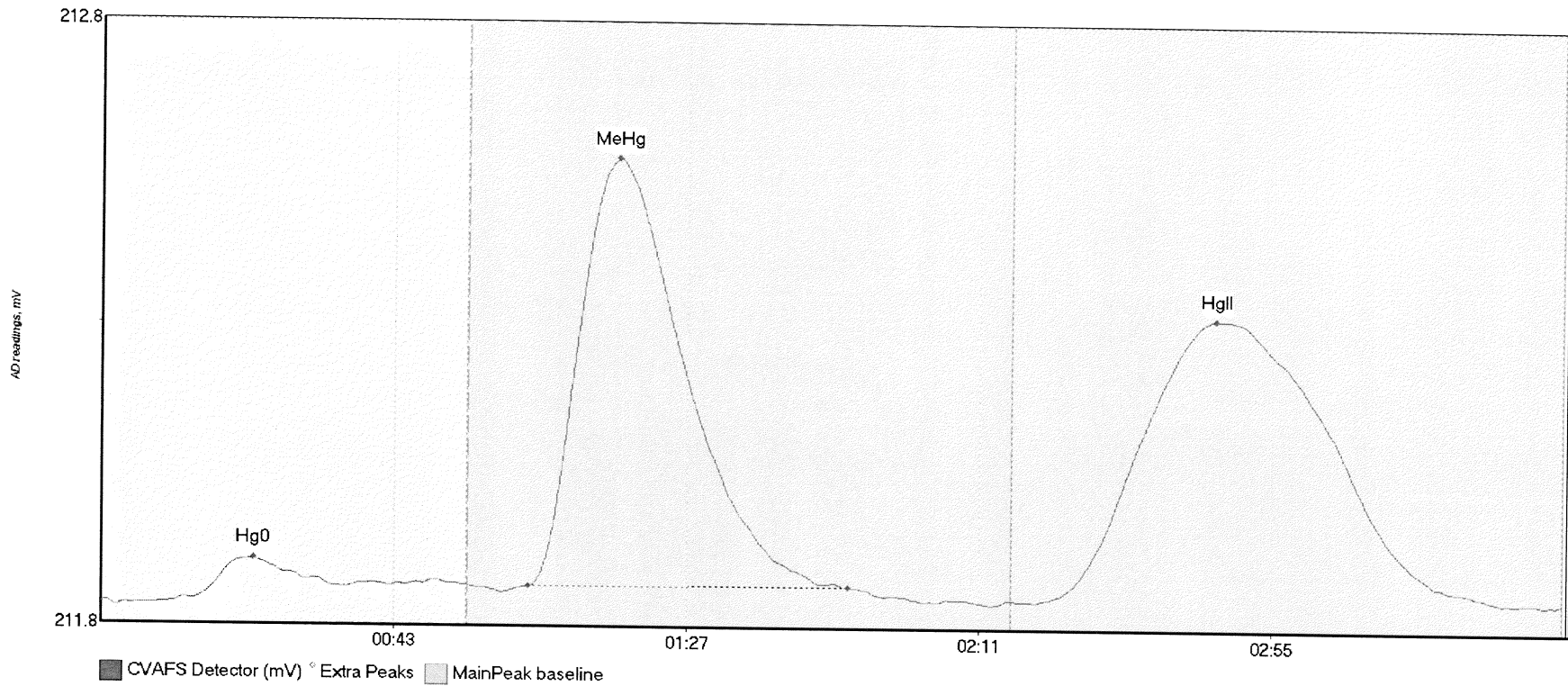
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-04RE1 H	9.556	14.1	51.6	211.81	211.84	24.1	0.066	OK	211.8118	0.00	0.03	
1708241-04RE1 M	240.258	60.7	117.0	211.83	211.84	77.9	1.277	OK	211.8118	0.00	0.03	
1708241-04RE1 H	350.788	140.6	214.7	211.82	211.84	170.3	1.107	OK	211.8118	0.00	0.03	

#72: 1708241-05RE1



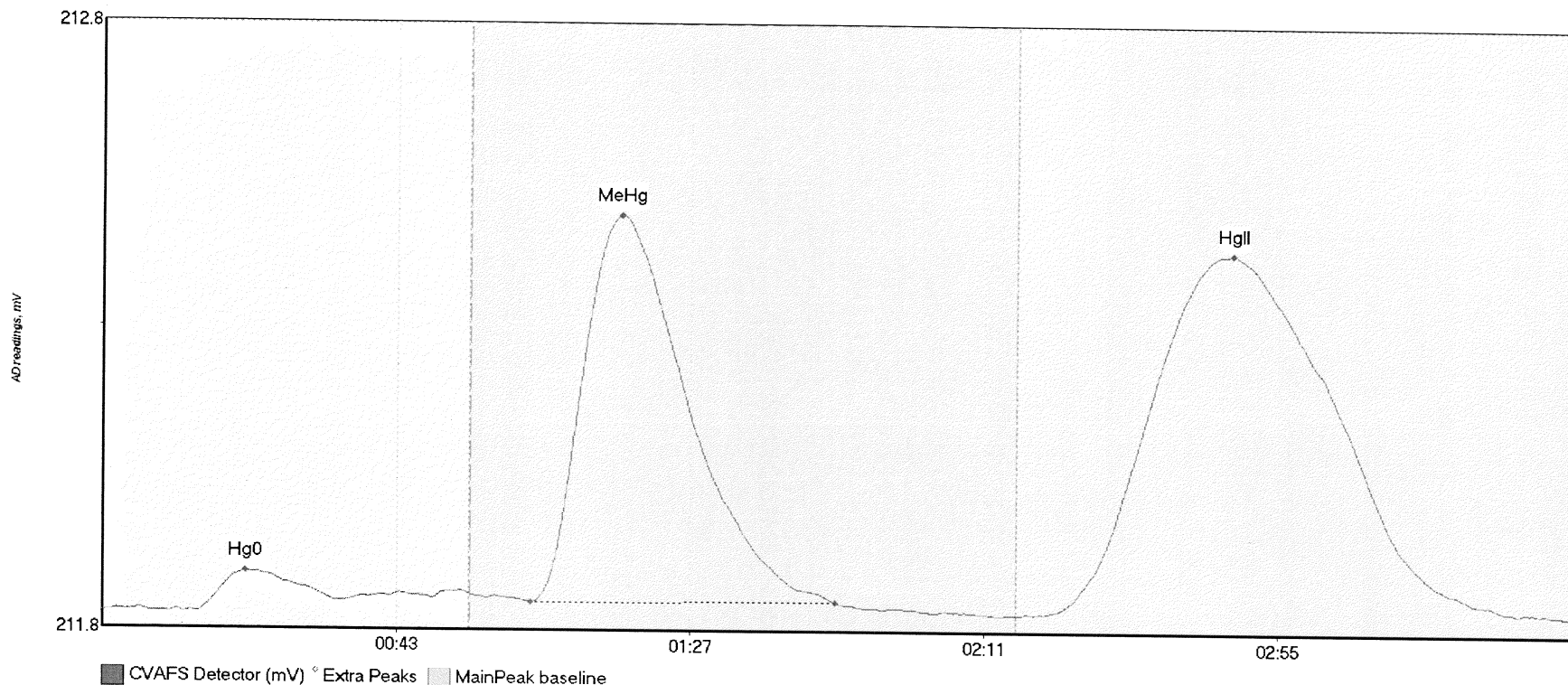
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-05RE1 H	14.061	13.4	55.0	211.82	211.85	22.7	0.107	CT	211.8194	0.00	0.03	
1708241-05RE1 M	153.081	63.5	114.3	211.84	211.84	77.5	0.825	OK	211.8194	0.00	0.03	
1708241-05RE1 H	876.267	139.3	219.4	211.82	211.85	168.8	2.745	OK	211.8194	0.00	0.03	

#73: 1708241-11RE1



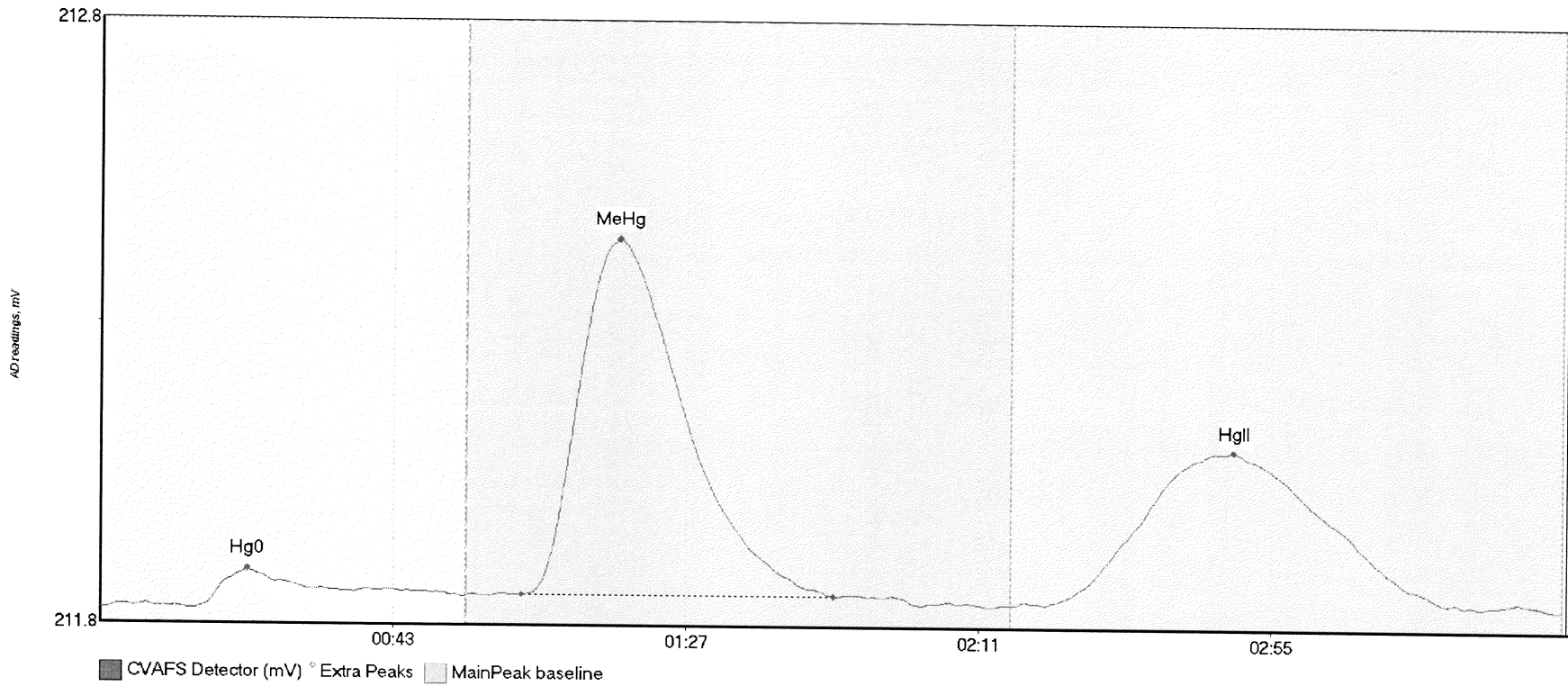
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-11RE1 H	6.878	10.5	36.2	211.82	211.84	22.9	0.072	OK	211.8163	0.00	0.01	
1708241-11RE1 M	128.740	64.1	112.3	211.84	211.85	77.6	0.711	OK	211.8163	0.00	0.01	
1708241-11RE1 H	147.456	142.4	209.9	211.83	211.83	167.4	0.466	OK	211.8163	0.00	0.01	

#74: 1708241-12RE1



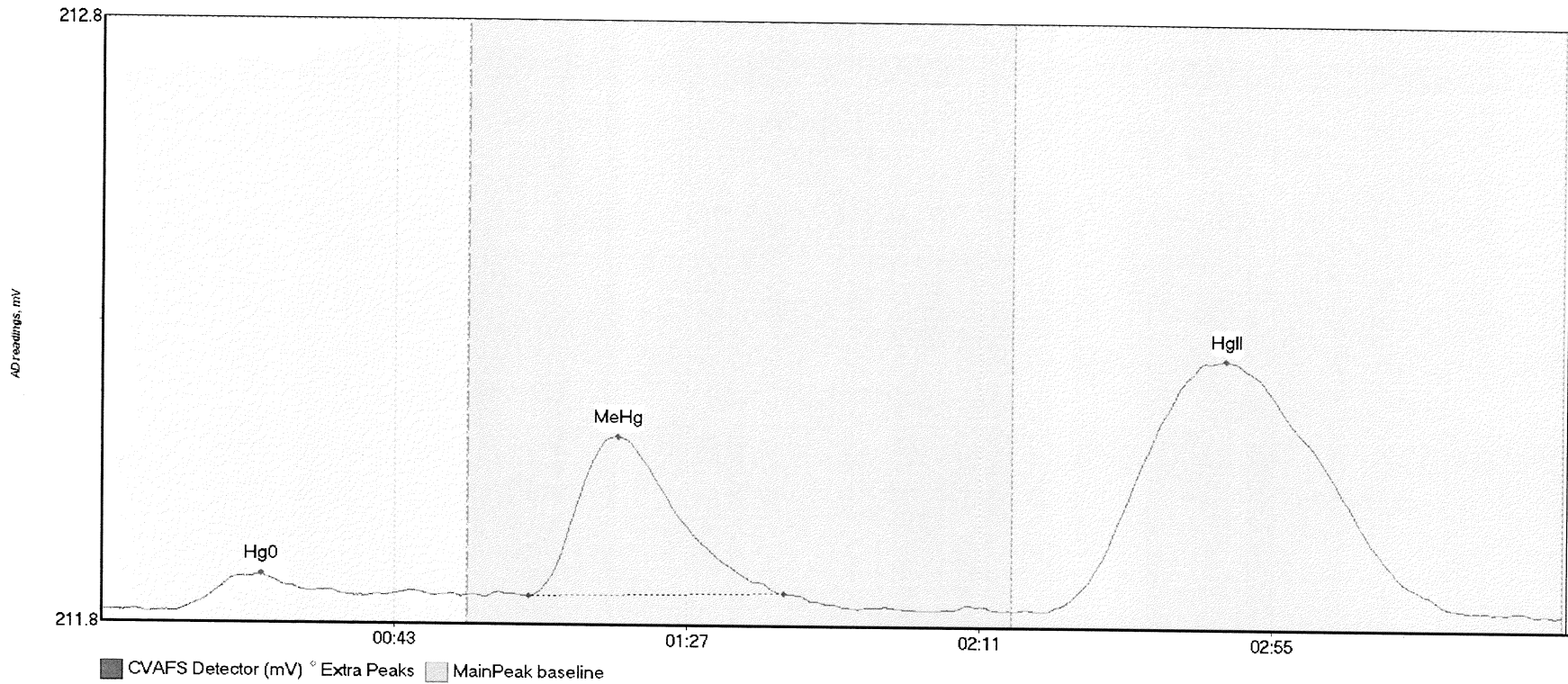
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-12RE1 H	7.011	14.2	35.2	211.81	211.83	21.4	0.067	OK	211.8086	0.00	0.00	
1708241-12RE1 M	115.135	64.1	109.7	211.83	211.83	77.6	0.639	OK	211.8086	0.00	0.00	
1708241-12RE1 H	185.075	141.0	218.0	211.81	211.81	169.2	0.596	OK	211.8086	0.00	0.00	

#75: 1708241-13RE1



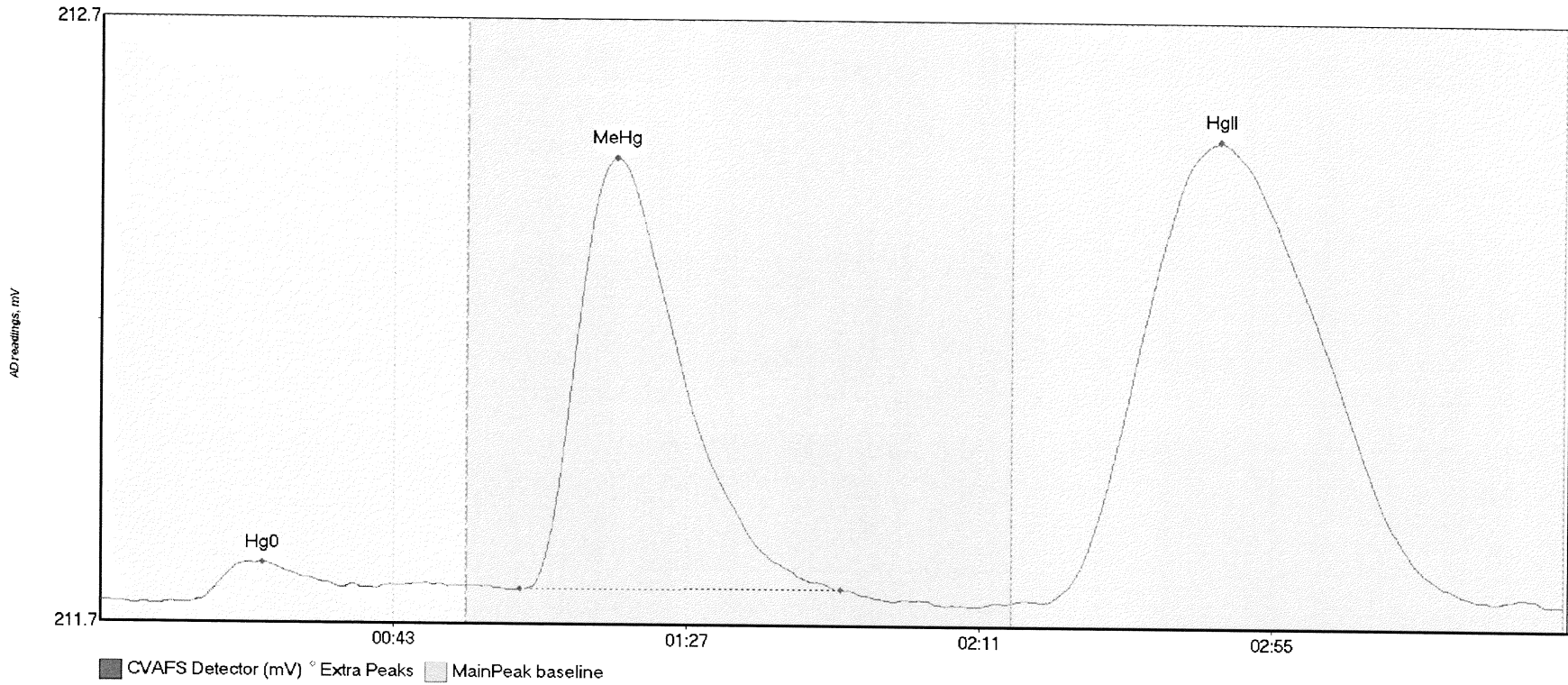
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-13RE1 H	9.657	14.2	54.5	211.80	211.82	22.0	0.063	OK	211.8024	0.00	0.01	
1708241-13RE1 M	106.418	63.3	110.1	211.83	211.83	77.9	0.589	OK	211.8024	0.00	0.01	
1708241-13RE1 H	78.528	142.2	205.2	211.82	211.82	170.3	0.255	OK	211.8024	0.00	0.01	017

#76: 1708241-14RE1



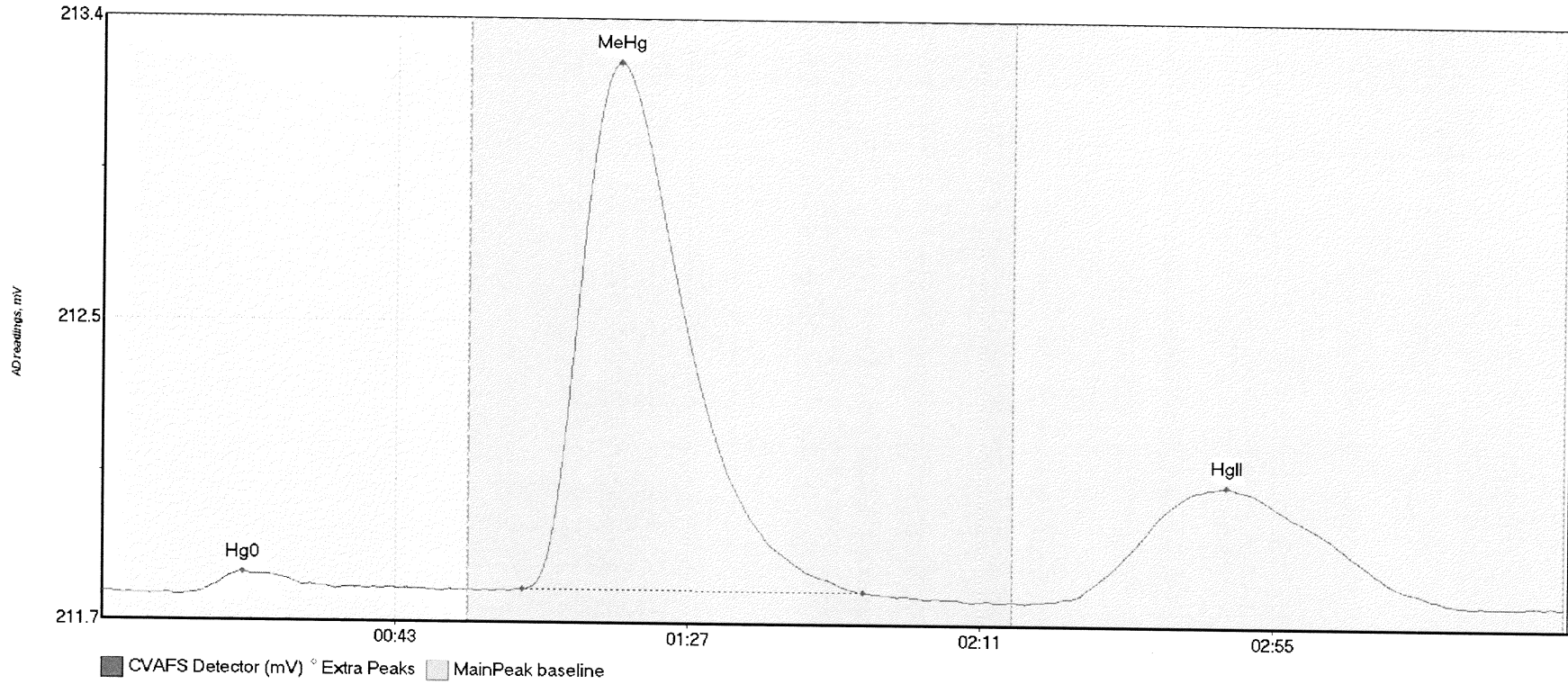
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-14RE1 H	6.756	11.0	40.0	211.79	211.82	24.0	0.061	OK	211.7961	0.00	0.00	
1708241-14RE1 M	44.898	64.2	102.6	211.82	211.83	77.6	0.265	OK	211.7961	0.00	0.00	
1708241-14RE1 H	127.605	141.6	206.1	211.80	211.81	169.0	0.419	OK	211.7961	0.00	0.00	017

#77: 1708241-15RE1



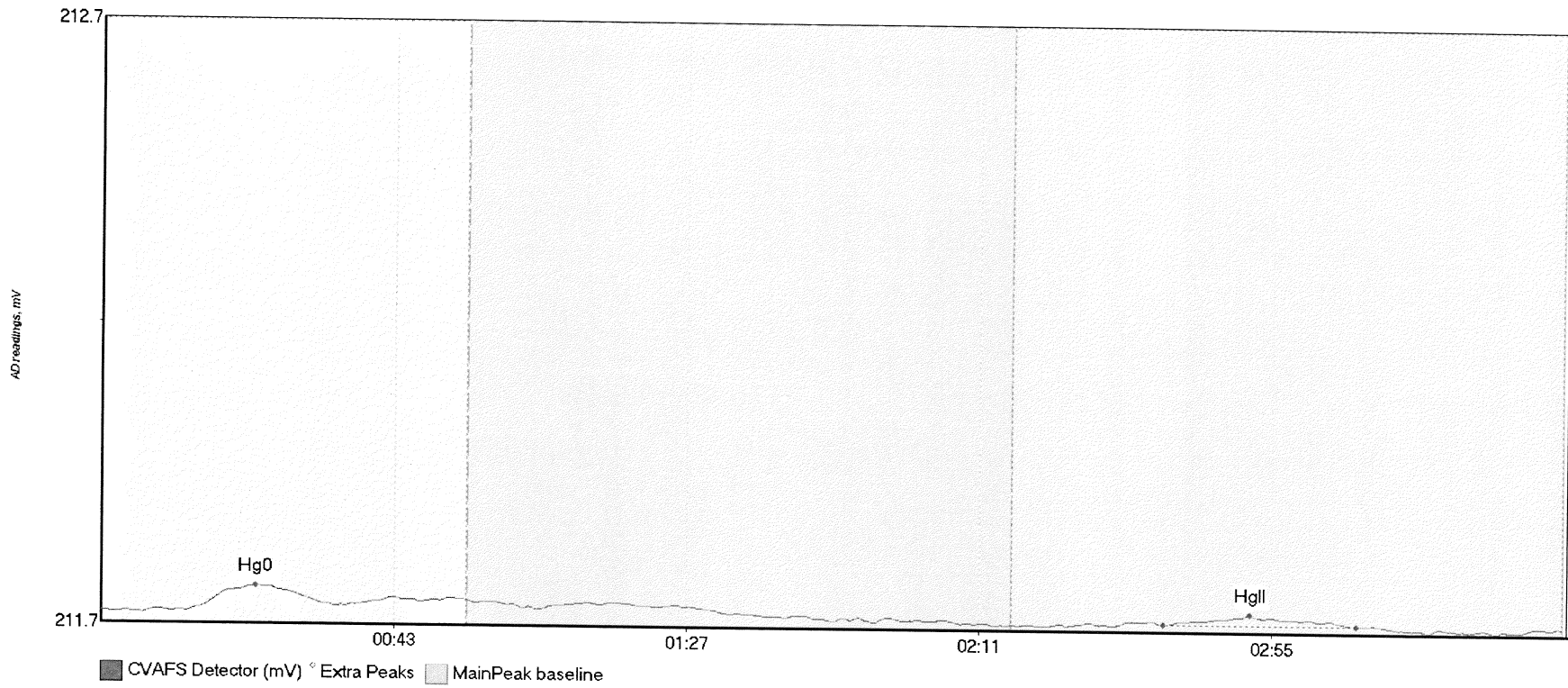
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-15RE1 H	7.168	14.7	41.3	211.79	211.81	24.3	0.063	OK	211.7857	0.00	0.00	
1708241-15RE1 M	127.979	63.0	111.2	211.81	211.81	77.3	0.715	OK	211.7857	0.00	0.00	
1708241-15RE1 H	229.199	142.3	209.2	211.79	211.79	168.0	0.763	OK	211.7857	0.00	0.00	

#78: SEQ-CCV6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	8.707	11.9	51.0	211.77	211.79	21.2	0.063	OK	211.7813	0.00	-0.02	
SEQ-CCV6 MeHg	268.684	63.2	114.4	211.79	211.79	77.6	1.482	OK	211.7813	0.00	-0.02	
SEQ-CCV6 HgII	99.380	142.6	204.3	211.77	211.77	169.1	0.326	OK	211.7813	0.00	-0.02	

#79: SEQ-CCB6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	4.726	12.8	35.1	211.76	211.77	23.3	0.043	OK	211.7552	0.00	-0.01	
SEQ-CCB6 HgII	2.487	159.8	188.7	211.75	211.75	172.8	0.017	OK	211.7552	0.00	-0.01	017